Florida Agricultural and Mechanical University
Board of Trustees

Academic Affairs Committee Meeting

Date: May 11, 2016
Time: 9 am
Location: Conference Call

Committee Members: Matthew Carter, Chair
Thomas Dortch, David Lawrence, and Belvin Perry

AMENDED AGENDA

I.	Call to Order	Trustee Matthew Carter
II.	Roll Call	
III.	Approval of Minutes for March 9, 2016 Meeting	Trustee Matthew Carter

ACTION ITEMS

IV.	Approval of Tenure	Provost Marcella David
V.	University's Work Plan for 2016 – 2017	Provost Marcella David
VI.	Regulation/Policy • Academic Standing for Undergraduate Students • Faculty Credentialing	Provost Marcella David & AP Donald Palm
VII.	New Degree Programs • BS Food Science • BS Supply Chain Management • MS Supply Chain Management	Provost Marcella David
VIII.	Approval of New Position Classifications	Provost Marcella David
IX.	Request for Leave of Absence Without Pay	Provost Marcella David

INFORMATION ITEMS

X.	Division of Academic Affairs Update	Provost Marcella David
XI.	Adjournment	

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: III

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: Academic Affairs – Minutes for March 9, 2016

Rationale: In accordance with the Florida Statutes, a governmental body shall prepare and keep minutes or make a tape recording of each open meeting of the body.

Attachments: Minutes for March 9, 2016

Recommendation: Approve the minutes of March 9, 2016.

Florida Agricultural and Mechanical University
Board of Trustees

Academic Affairs Committee Minutes
Trustee Matthew Carter, Chair

Date: March 9, 2016

The meeting was called to order by Provost Marcella David. Ms. Wanda Akisanya called the roll and the following committee members were present: Matthew Carter, Thomas Dortch, and Belinda Shannon. A quorum was established.

Trustee Carter stated that Provost David would present the one action item on the agenda – Annual Accountability Report.

Provost Marcella David presented FAMU's Annual Accountability Report. The Board of Governors has instituted a planning and performance monitoring system that includes the submission of university work plans and annual reports designed to inform strategic planning, budgeting and other policy decisions for the State University System. The University's Annual Accountability Report, which conforms to the required elements, metrics and format provided by the Board of Governors, identifies key achievements and narrative related to Board of Governors goals on Teaching and Learning; Scholarship, Research and Innovation; and Community and Business Engagement. The report also includes dashboard data and data tables relating to performance funding metrics, financial resources, personnel, enrollment, undergraduate and graduate education, and research and economic development. The Accountability Report requires Board of Trustees approval by March 15, 2016, prior to the Board of Governors meeting on March 16-17, 2016.

Trustee Shannon moved to approve the Annual Accountability Report and the motion was seconded by Trustee Dortch. The motion carried.

There being no further discussion, the meeting was adjourned.

Respectfully submitted,

Matthew Carter, Committee Chair

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: IV

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: **Approval of 2015 – 2016 Tenure Recommendations**

Rationale: Applications for tenure were reviewed by the departments, the colleges/schools, the University Tenure and Promotion Committee, Provost David, and President Mangum. The applicants were evaluated based on their professional experiences, teaching effectiveness, university service, public service, demonstrated contributions to their teaching discipline, technical and performance competencies, records of publications and research, certifications and exceptional scholarly or creative activities.

Attachments: Summaries.

Recommendation: The following applicants are recommended for approval of tenure:

Name	College/School	Rank
Dr. Brenda Hughes	College of Social Sciences, Arts and Humanities	Assistant Professor
Dr. Darryl Scriven	College of Social Sciences, Arts and Humanities	Assistant Professor
Dr. Noble Sissle	College of Social Sciences, Arts and Humanities	Assistant Professor
Dr. Nan Liu	College of Social Sciences, Arts and Humanities	Associate Professor
Dr. Aurelia Alexander	School of Allied Health Sciences	Assistant Professor
Dr. Tracy Thomas	School of Allied Health Sciences	Associate Professor
Dr. Vanessa R. Pitts	College of Education	Assistant Professor
Dr. Levetta Henderson	College of Education	Assistant Professor
Dr. Doreen Kobelo	School of Architecture & Engineering Technology	Assistant Professor
Dr. Herman Flores	College of Pharmacy and Pharmaceutical Sciences	Assistant Professor
Dr. Soheyla Mahdavian	College of Pharmacy and Pharmaceutical Sciences	Associate Professor
Dr. David Seal	College of Pharmacy and Pharmaceutical Sciences	Assistant Professor

FLORIDA A&M UNIVERSITY

Tenure Summaries

Dr. Brenda Hughes

Dr. Hughes is recommended for tenure in the College of Social Sciences, Arts and Humanities. She is an Assistant Professor in the Department of Sociology and Criminal Justice. She was appointed to the tenure-earning track in 2008. She earned degrees in journalism, political science, and sociology at FAMU, and her Ph.D. in Sociology from FSU.

Dr. Darryl Scriven

Dr. Scriven is recommended for tenure in the College of Social Sciences, Arts and Humanities. He is an Assistant Professor of Philosophy in the Department of Visual Arts, Humanities and Theater. His tenure-earning appointment began in 2014. Dr. Scriven earned dual degrees in Philosophy and Religion and Mathematics from FAMU, and advanced degrees in Philosophy from Purdue University. His prior teaching posts were at Wilberforce, Southern University, and Tuskegee, and he was awarded tenure at Southern University. He was given four years credit towards tenure at FAMU.

Professor Noble Sissle

Professor Noble Sissle is recommended for tenure in the College of Social Sciences, Arts and Humanities. He is an Assistant Professor of Visual Arts in the Department of Visual Arts, Humanities and Theatre. Professor Sissle received an M.F.A. from Full Sail University and Savannah College of Art and Design.

Dr. Nan Liu

Dr. Liu is recommended for tenure in the College of Social Sciences, Arts and Humanities. He is an Associate Professor in the Department of Visual Arts, Humanities and Theatre. His tenure-earning appointment began in 2010, and he was promoted from assistant to associate professor in 2014. Dr. Liu earned his B.A. in Chinese Painting from Nan Kai University, and has since earned two masters degrees in Art Education (in China and the U.S.) as well as an M.F.A. in painting and a Ph.D. in Art Education from Florida State.

Dr. Aurelia Alexander

Dr. Alexander is recommended for tenure in the School of Allied Health Sciences. She is an Assistant Professor in the Division of Occupational Therapy. Her first degree in Occupational Therapy was earned from FAMU and she earned additional degrees from Boston University and Chatham University.

Dr. Tracy Thomas

Dr. Thomas is recommended for tenure in the School of Allied Health Sciences. She is an Associate Professor in the Division of Physical Therapy. She earned her B.S. in Physical Therapy from FAMU, as well as her Ph.D. in Pharmaceutical Sciences. Dr. Thomas earned tenure at Alabama State University in 2014, and was appointed on an accelerated tenure clock at FAMU.

Dr. Vanessa Pitts-Bannister

Dr. Pitts-Bannister is recommended for tenure in the College of Education. She joined the FAMU College of Education faculty in January 2015 from the faculty of the University of South Florida. She earned a master's degree in Mathematics from Bowling Green State University and an Ed.D. in Mathematics Education at the University of Pittsburgh.

Dr. Levetta Henderson

Dr. Henderson is recommended for tenure in the College of Education. She is an Assistant Professor in the Department of Educational Leadership. Her B.S. in Intermediate Education was earned from Elizabeth City State University. She earned two masters degrees in education at North Carolina A&T University before earning her Ed.D. in Educational Leadership at Nova Southeastern University. She joined FAMU in 2010, after significant experience as a school teacher and administrator.

Dr. Doreen Kobelo

Dr. Kobelo is recommended for tenure in the School of Architecture and Engineering Technology. She currently serves as Assistant Professor in the Department of Engineering Technology. Her first degree in civil engineering was earned from the University of Oar es Salaam, and her M.S. and Ph.D. degrees in Civil Engineering were earned from the FAMU-FSU College of Engineering (as an FSU student).

Dr. Herman Flores-Rozas

Dr. Flores-Rozas is recommended for tenure in the College of Pharmacy and Pharmaceutical Sciences. He is an Assistant Professor in COPPS, teaching in the area of Pharmacology. He earned his first degrees in Biochemistry and Molecular Biology in Chile, before earning his advanced degree at Cornell, and serving as a postdoctoral fellow at Harvard and UC San Diego. He was appointed on the tenure track in May of 2010.

Dr. Soheyla Mahdavian

Dr. Mahdavian is recommended for tenure in the College of Pharmacy and Pharmaceutical Sciences. She is an Associate Professor in COPPS, teaching in the Pharm.D. program. She earned her Pharm.D. from FAMU. In addition to teaching at FAMU she is a preceptor for neuropsych medicine at TMH and Apalachee Center.

Dr. David Seal

Dr. Seal is recommended for tenure in the College of Pharmacy and Pharmaceutical Sciences. He is a Pharm.D. faculty member in Jacksonville, who has clinical work as his specialty. Dr. Seal earned his degrees at University of North Florida and University of Florida. He was appointed to the tenure-earning track in 2009 and holds the rank of Assistant Professor.

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: V

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: **University's Work Plan for 2016 - 2017**

Rationale: The Board of Governors Regulation 2.002 requires that the Board of Governors institute a planning and performance monitoring system "…that includes the submission of university work plans and annual reports designed to inform strategic planning, budgeting and other policy decisions for the State University System." The University's Work Plan, which conforms to the required elements, metrics and format provided by the Board of Governors, identifies strategy, strengths and opportunities, proposed key initiatives for the next three years, includes data for key performance indicators, enrollment plan, fiscal data and proposed new degree programs for the next three years.

Attachments: University Work Plan

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve the 2016-17 Work Plan of the University, which was submitted to the Board of Governors subject to the BOT's consideration.

Florida Agricultural and Mechanical University

2016 Work Plan

PENDING BOT APPROVAL

Florida Agricultural and Mechanical University

University Work Plan Presentation

for Board of Governors June 2016 Meeting

DRAFT 05/09/2016

STATE UNIVERSITY SYSTEM *of* FLORIDA | Board of Governors

INTRODUCTION

The State University System of Florida has developed three tools that aid in guiding the System's future.

1) *The Board of Governors' 2025 System **Strategic Plan** is driven by goals and associated metrics that stake out where the System is headed;*
2) *The Board's **Annual Accountability Report** provides yearly tracking for how the System is progressing toward its goals;*
3) *Institutional **Work Plans** connect the two and create an opportunity for greater dialogue relative to how each institution contributes to the System's overall vision.*

These three documents assist the Board with strategic planning and with setting short-, mid- and long-term goals. The Board will use these documents to help advocate for all System institutions and foster even greater coordination with the institutions and their Boards of Trustees.

Longer-term goals will inform future agendas of the Board's Strategic Planning Committee. The Board's acceptance of a work plan does not constitute approval of any particular component, nor does it supersede any necessary approval processes that may be required for each component.

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MISSION STATEMENT (What is your purpose?)

Florida Agricultural and Mechanical University (FAMU) is an 1890 land-grant institution dedicated to the advancement of knowledge, resolution of complex issues and the empowerment of citizens and communities. The University provides a student-centered learning environment consistent with its core values. The faculty is committed to educating students at the undergraduate, graduate, doctoral and professional levels, preparing graduates to apply their knowledge, critical thinking skills and creativity in their service to society. FAMU's distinction as a doctoral/research institution will continue to provide mechanisms to address emerging issues through local and global partnerships. Expanding upon the University's land-grant status, it will enhance the lives of constituents through innovative research, engaging cooperative extension, and public service. While the University continues its historic mission of educating African Americans, FAMU embraces persons of all races, ethnic origins and nationalities as life-long members of the university community.

VISION STATEMENT (What do you aspire to?)

Florida A&M University (FAMU) will be internationally recognized as a best-in-class doctoral land-grant institution with a global impact.

STATEMENT OF STRATEGY (How will you get there?)

Given your mission, vision, strengths and available resources, provide a brief description of your market and your strategy for addressing and leading it.

The University's primary market continues to be African Americans and other underrepresented minorities. The University will continue to increase its efforts to attract students of all races, while enhancing its position as a leading producer of African American graduates through strategies to attract well-qualified students, as well as enhanced processes to increase admissions-to-enrollment yield rates, graduation rates and employment outcomes. This will necessitate a continued focus on retention, student progression and graduation and quality of instruction in particular strategic areas. The University also seeks to enhance its customer services and its business operations in student and financial services to promote efficiency and compliance with internal and external requirements. Furthermore, the University seeks to enhance its standing as a doctoral research university through increased research activity by incentivizing faculty, particularly in STEM, agriculture and health-related disciplines, with an expectation of increased external funding. In this regard, the University will examine faculty workload, including course load, with the aim of increasing time for research in order to improve research productivity. Although we have realized efficiencies and enhancements in various areas, in order to create transformational change, additional funds are essential. To help support these initiatives, the University will do its share in raising external funds.

STRENGTHS AND OPPORTUNITIES *(within 3 years)*

What are your core capabilities, opportunities and challenges for improvement?

Florida Agricultural and Mechanical University is a doctoral research institution and is one of the top Historically Black Colleges and Universities (HBCUs) in the nation. The institution promotes an environment to sustain lifelong learning, and to empower a diverse population of students to succeed as citizens in an ever changing and challenging global society. FAMU is poised to capitalize on University strengths and opportunities with renewed vigor. The University's strengths include: 1) Carnegie classification as a R2: Doctoral Universities – Higher Research Activity institution, 2) recognition for total research and development (R&D) expenditures, 3) recognition as a top producer of minority graduates, 4) offering an array of accredited professional programs, 5) 1890 land-grant institution, and 6) a focus on STEM, agriculture and health-related disciplines, areas in which minorities are particularly underrepresented. The University is continuing in its efforts to ensure student success, increase retention and graduation rates at all degree levels; meet labor market expectations of employers and the professions; and increase productivity in research. Opportunities include an amplified focus on student success, increased engagement in land-grant initiatives and increased expectations for performance throughout the institution. The University must pursue opportunities to make a financial investment in the land-grant mission of the University and in Business, Health, Agriculture and STEM disciplines, which includes the FAMU-FSU College of Engineering.

KEY INITIATIVES & INVESTMENTS *(within 3 years)*

Describe your top three key initiatives for the next three years that will drive improvement in Academic Quality, Operational Efficiency, and Return on Investment.

1. Increase the persistence/retention rate of undergraduate students, leading to increased graduation rates.

Strategies include: continuing the implementation of the comprehensive retention and debt reduction plan; increasing student participation in First Year Experience activities; expanding the living-learning community dorm experience; increasing student engagement in curricular and co-curricular initiatives; offering professional development activities for students and faculty/advisors; and enhancing the electronic monitoring of student progression. FAMU has invested significantly in some of these activities designed to increase student retention and progression, which has been evidenced by the increase in the academic progress rate of FTIC students returning their second year by 21% since 2010. By focusing efforts on the timely production of well-qualified graduates, the University, in all probability, will be able to reduce costs associated with current progression and graduation rates of students. FAMU targets AA transfers of Florida College System institutions, and has established community college scholarships to assist students financially as they transition to our institution. The University continues to seek new articulation agreements and to strengthen existing relationships. In addition, both the offices of Enrollment and Academic Advisement have designated staff to communicate with Florida College System institutions concerning applicants and available support services.

2. Increase the number of undergraduate and graduate degrees awarded in the areas of STEM, agriculture and health-related disciplines.

Several key initiatives are underway to increase the enrollment and number of STEM, agriculture and health graduates, including the $2.9 million award to FAMU and FSU from the Florida Board of Governors TEAm Program to expand the K-12 pipeline in information technology/computing; the Bridges to Baccalaureate in Biomedical Sciences Program targeting TCC students; NNSA grants to increase STEM student opportunities in science related research; the $1.6 million award from the NSF HBCU-UP Program to enhance instructional strategies in lower-division STEM courses; and hiring full-time faculty in biology, computer and information sciences, entomology, mathematics, and science education for fall 2016. The University plans to strengthen its recruitment of STEM-ready students and increase scholarships available to these students. Additionally, the University will continue its efforts to improve on the outcome of licensure pass rates for programs in health. As the University prepares for a new SACSCOC QEP cycle, the campus will engage in discussions related to student learning outcomes in all disciplines and programs.

3. Broaden the student base.

The University seeks to broaden its student base by increasing its efforts in recruiting students from all races and socioeconomic backgrounds with the requisite academic background, and as a consequence, enhance the educational experience for all students. The University seeks to attract more students with diverse experience; more high-achieving students; and students who bring more racial and ethnic diversity to the campus. In order to achieve this goal, the University is investing in the services and programs that will appeal to students with these characteristics and support their success once enrolled. Notably, the University is expanding its outreach to prospective students beyond traditional regional quarters; reorganizing and investing in services provided to international students; enhancing offerings for honors students; and promoting changes in first-year basic courses to attract and support students interested in STEM, agriculture and health areas.

PERFORMANCE BASED FUNDING METRICS

	2015 ACTUAL	2016 ACTUAL	2017 GOALS	2018 GOALS	2019 GOALS	2020 GOALS
Percent of Bachelor's Graduates Enrolled or Employed ($25,000+)* *within the U.S. One Year After Graduation*	59.2% 2012-13	59.4% 2013-14	59.4% 2014-15	60.5% 2015-16	62.5% 2016-17	65.0% 2017-18
Median Wages of Bachelor's Graduates Employed Full-time *in Florida One-Year After Graduation*	$28,800 2012-13	$31,100 2013-14	$31,100 2014-15	$31,300 2015-16	$31,400 2016-17	$31,500 2017-18
Cost per Bachelor's Degree *Instructional Costs to the University*	$40,080 2010-14	$44,520 2011-15	$47,680 2012-16	$48,220 2013-17	$45,370 2014-18	$42,720 2015-19
FTIC 6 year Graduation Rate *for full- and part-time students*	39.3% 2008-14	38.6% 2009-15	43% 2010-16	49% 2011-17	62% 2012-18	69% 2013-19
Academic Progress Rate *FTIC 2 year Retention Rate with GPA>2*	70.1% 2013-14	75.4% 2014-15	76% 2015-16	77% 2016-17	80% 2017-18	85% 2018-19
Bachelor's Degrees Awarded Within Programs of Strategic Emphasis	51.1% 2013-14	49.6% 2014-15	51% 2015-16	53% 2016-17	55% 2017-18	57% 2018-19
University Access Rate *Percent of Fall Undergraduates with a Pell grant*	61.6% Fall 2013	64.7% Fall 2014	60% Fall 2015	60% Fall 2016	60% Fall 2017	60% Fall 2018
Graduate Degrees Awarded Within Programs of Strategic Emphasis	43.3% 2013-14	51.5% 2014-15	49% 2015-16	50% 2016-17	51% 2017-18	52% 2018-19
BOG METRIC: **Percent of Bachelor's Degrees Without Excess Hours**	34.0% 2013-14	29.0% 2014-15	35% 2015-16	45% 2016-17	55% 2017-18	60% 2018-19
UBOT METRIC: **Percent of R&D Expenditures Funded from External Sources**	80.0% 2013--14	81.0% 2014-15	80% 2015-16	80% 2016-17	80% 2017-18	83% 2018-19

Note: Metrics are defined in appendix. For more information about the PBF model visit: http://www.flbog.edu/about/budget/performance_funding.php.

PREEMINENT RESEARCH UNIVERSITY FUNDING METRICS

	BENCH-MARKS	2016 ACTUAL	2017 GOALS	2018 GOALS	2019 GOALS	2020 GOALS
Average GPA and SAT Score [2 subtests] *for incoming freshman in Fall semester*	**4.0 GPA 1200 SAT**	3.4 980 Fall 2015	3.5 990 Fall 2016	3.5 1,000 Fall 2017	3.6 1,010 Fall 2018	3.6 1,020 Fall 2019
Public University National Ranking *in more than one national ranking*	**Top 50**	0 2016	1 2017	1 2018	1 2019	1 2020
Freshman Retention Rate *Full-time, FTIC*	**90%**	85% 2014-15	86% 2015-16	87% 2016-17	88% 2017-18	90% 2018-19
6-year Graduation Rate *Full-time, FTIC*	**70%**	39% 2009-15	43% 2010-16	49% 2011-17	62% 2012-18	69% 2013-19
National Academy Memberships	**6**	0 2013	0 2014	0 2015	0 2016	1 2017
Science & Engineering Research Expenditures ($M)	**$200 M**	$31.5 2014-15	$31.5 2015-16	$31.7 2016-17	$32.6 2017-18	$33.6 2018-19
Non-Medical Science & Engineering Research Expenditures ($M)	**$150 M**	$22.1 2014-15	$23.1 2015-16	$24.3 2016-17	$25.5 2017-18	$26.8 2018-19
National Ranking in S.T.E.M. Research Expenditures *includes public & private institutions*	**Top 100** in 5 of 8 disciplines	0 2013-14	1 2014-15	1 2015-16	1 2016-17	1 2017-18
Patents Awarded *over 3 year period*	**100**	14 2013-15	20 2014-16	20 2015-17	20 2016-18	25 2017-19
Doctoral Degrees Awarded Annually	**400**	21 2014-15	23 2015-16	25 2016-17	26 2017-18	30 2018-19
Number of Post-Doctoral Appointees	**200**	20 Fall 2012	21 Fall 2013	22 Fall 2014	23 Fall 2015	24 Fall 2016
Endowment Size ($M)	**$500 M**	$123.7 2014-15	$120 2015-16	$125 2016-17	$135 2017-18	$155 2018-19
NUMBER OF METRICS ABOVE THE BENCHMARK		**0**	**10**	**8**	**9**	**10**

Note: Metrics are defined in appendix. For more information about Preeminent state research universities, see 1001.7065 Florida Statutes.

KEY PERFORMANCE INDICATORS

Teaching & Learning Metrics (from 2025 System Strategic Plan that are not included in PBF or Preeminence)

	2015 ACTUAL	2016 ACTUAL	2017 GOALS	2018 GOALS	2019 GOALS	2020 GOALS
2. **Freshmen in Top 10% of Graduating High School Class**	13% Fall 2014	14% Fall 2015	15% Fall 2016	16% Fall 2017	17% Fall 2018	18% Fall 2019
3. **Professional Licensure & Certification Exam Pass Rates At or Above Benchmarks**	0 of 4 2013-14	0 of 4 2014-15	0 of 4 2015-16	4 of 4 2016-17	4 of 4 2017-18	4 of 4 2018-19
4. **Time to Degree** *Mean Years for FTICs in 120hr programs*	5.2 2013-14	5.0 2014-15	5.0 2015-16	4.9 2016-17	4.7 2017-18	4.5 2018-19
5. **Four-Year FTIC Graduation Rates** *full- and part-time students*	12% 2010-14	13% 2011-15	18% 2012-16	20% 2013-17	25% 2014-18	30% 2015-19
8. **Bachelor's Degrees Awarded** *First Majors Only*	1,560 2013-14	1,508 2014-15	1,590 2015-16	1,620 2016-17	1,625 2017-18	1,650 2018-19
9. **Graduate Degrees Awarded** *First Majors Only*	615 2013-14	585 2014-15	625 2015-16	628 2016-17	635 2017-18	642 2018-19
10. **Bachelor's Degrees Awarded to African-American & Hispanic Students**	96% 2013-14	97% 2014-15	97% 2015-16	95% 2016-17	95% 2017-18	94% 2018-19
11. **Adult** (Aged 25+) **Undergraduates Enrolled**	10% Fall 2014	10% Fall 2015	10% Fall 2016	10% Fall 2017	10% Fall 2018	10% Fall 2019
12. **Percent of Undergraduate FTE in Online Courses**	1% 2013-14	2% 2014-15	2% 2015-16	4% 2016-17	8% 2017-18	13% 2017-18
16. **Percent of Bachelor's Degrees in STEM & Health**	39% 2013-14	40% 2014-15	41% 2015-16	43% 2016-17	45% 2017-18	46% 2018-19
18. **Percent of Graduate Degrees in STEM & Health**	41% 2013-14	51% 2014-15	49% 2015-16	49% 2016-17	50% 2017-18	51% 2018-19
NUMBER OF IMPROVED METRICS		**7** of 11	**5** of 11	**8** of 11	**8** of 11	**8** of 11

KEY PERFORMANCE INDICATORS (continued)

Scholarship, Research and Innovation Metrics (from the 2025 System Strategic Plan)

	2015 ACTUAL	2016 ACTUAL	2017 GOALS	2018 GOALS	2019 GOALS	2020 GOALS
20. **Faculty Awards**	2 2012	1 2013	2 2014	2 2015	2 2016	3 2017
22. **Total Research Expenditures ($M)**	$46.4 2013-14	$46.5 2014-15	$46.5 2015-16	$50.2 2016-17	$52.7 2017-18	$55.3 2018-19
23. **Research Expenditures Funded from External Sources**	81% 2013-14	81% 2014-15	80% 2015-16	80% 2016-17	80% 2017-18	83% 2018-19
25. **Licenses/Options Executed**	0 2013-14	0 2014-15	4 2015-16	4 2016-17	6 2017-18	6 2018-19
26. **Number of Start-up Companies Created**	0 2013-14	0 2014-15	2 2015-16	2 2016-17	2 2017-18	2 2018-19
NUMBER OF IMPROVED METRICS		**2** of 5	**3** of 5	**1** of 5	**2** of 5	**3** of 5

Institution Specific Goals *(optional)*

To further distinguish the university's distinctive mission, the university may choose to provide additional narrative and metric goals that are based on the university's own strategic plan.

As stated in the University's mission statement, "*The faculty is committed to educating students at the undergraduate, graduate, doctoral and professional levels, preparing graduates to apply their knowledge, critical thinking skills and creativity in their service to society.*" The University will continue to strengthen its position as a top producer of African American students and broaden its international outreach to increase partnerships, research, and educational opportunities for faculty and students, thus increasing the University overall enrollment of international students.

	2015 ACTUAL	2016 ACTUAL	2017 GOALS	2018 GOALS	2019 GOALS	2020 GOALS
Bachelor's Degrees Awarded to Minorities (Black, Asian, Hispanic, Native, Mixed)	1,517 2013-14	1,462 2014-15	1,560 2015-16	1,580 2016-17	1,600 2017-18	1,620 2018-19
Percent of Course Sections Offered via Distance and Blended Learning	2.1 Fall 2014	2.5 Fall 2015	2.8 Fall 2016	2.9 Fall 2017	3.0 Fall 2018	3.5 Fall 2019
Percentage of Eligible Programs with Specialized Accreditation	85.25% 2014-15	83.87% 2015-16	85.48% 2016-17	87.10% 2017-18	87.10 % 2018-19	87.10% 2019-20
Number of graduate degrees awarded to African Americans	475 2013-14	481 2014-15	510 2015-16	550 2016-17	590 2017-18	630 2018-19
Number of students enrolled in graduate online programs	38 Fall 2014	43 Fall 2015	50 Fall 2016	62 Fall 2017	75 Fall 2018	88 Fall 2019

ENROLLMENT PLANNING

Planned Headcount Enrollment by Student Type *(for all students at all campuses)*

	FALL 2013 ACTUAL	FALL 2014 ACTUAL	FALL 2015 ACTUAL	FALL 2016 PLAN	FALL 2017 PLAN	FALL 2018 PLAN	FALL 2019 PLAN
UNDERGRADUATE							
FTIC	6,632	6,390	6,085	5,569	5,576	5,778	5,825
AA Transfers[1]	796	824	803	934	970	1,044	1,233
Other[2]	855	761	807	683	640	634	647
Subtotal	**8,283**	**7,975**	**7,695**	**7,186**	**7,186**	**7,456**	**7,705**
GRADUATE[3]							
Master's	620	582	578	594	628	652	665
Research Doctoral	158	170	188	194	204	213	217
Professional Doctoral	1,536	974	998	1,026	1,084	1,126	1,149
Subtotal	**2,314**	**1,726**	**1,764**	**1,814**	**1,916**	**1,991**	**2,031**
UNCLASSIFIED							
H.S. Dual Enrolled	7	390	300	200	200	200	200
Other[4]	134	142	161	175	150	150	150
Subtotal	**141**	**532**	**461**	375	350	350	350
TOTAL	10,738	10,233	9,920	9,375	9,452	9,797	10,086

Notes: This table reports the number of students enrolled at the university by student type categories. The determination for undergraduate, graduate and unclassified is based on the institutional class level values. Unclassified refers to a student who has not yet been formally admitted into a degree program but is enrolled. The student type for undergraduates is based on the Type of Student at Time of Most Recent Admission. The student type for graduates is based on the degree that is sought and the student CIP code. (1) Includes AA Transfers from the Florida College System. (2) Undergraduate – Other includes Post-Baccalaureates who are seeking a degree. (3) Includes Medical students. (4) Unclassified – Other includes Post-Baccalaureates who are not seeking a degree."

Planned FTE Enrollment by Method of Instruction *(for all students at all campuses)*

	2012-13 ACTUAL	2013-14 ACTUAL	2014-15 ACTUAL	2015-16 PLAN	2016-17 PLAN	2017-18 PLAN	2018-19 PLAN
UNDERGRADUATE							
Distance (80-100%)	50	73	131	173	283	600	1,000
Hybrid (50-79%)	0	0	27	80	700	1,068	1,250
Traditional (0-50%)	9,582	8,583	7,932	7,671	6,207	5,882	5,576
Subtotal	**9,632**	**8,656**	**8,090**	**7,924**	**7,189**	**7,550**	**7,826**
GRADUATE							
Distance (80-100%)	84	47	52	46	55	60	80
Hybrid (50-79%)	0	0	14	10	90	245	340
Traditional (0-50%)	1,989	1,814	1,729	1,666	1,481	1,335	1,280
Subtotal	**2,072**	**1,861**	**1,796**	**1,721**	**1,626**	**1,640**	**1,700**

Note: Full-time Equivalent (FTE) student is a measure of instructional activity that is based on the number of credit hours that students enroll. FTE is based on the standard national definition, which divides undergraduate credit hours by 30 and graduate credit hours by 24. **Distance Learning** is a course in which at least 80 percent of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time or space, or both (per 1009.24(17), *F.S.*). **Hybrid** is a course where 50% to 79% of the instruction is delivered using some form of technology, when the student and instructor are separated by time or space, or both (per SUDS data element 2052). **Traditional** refers to primarily face to face instruction utilizing some form of technology for delivery of supplemental course materials for *no more* than 49% of instruction (per SUDS data element 2052).

ENROLLMENT PLANNING (continued)

Planned FTE Enrollment Plan by Student Level

	2014-15 ACTUAL	2015-16 ESTIMATE	2016-17 PLAN	2017-18 PLAN	2018-19 PLAN	2019-20 PLAN	2020-21 PLAN	2021-22 PLAN	Planned Annual Growth Rate*
STATE FUNDABLE									
RESIDENT									
LOWER	3,541	3,516	3,323	3,350	3,472	3,575	3,695	3,757	2.5%
UPPER	3,306	3,112	2,941	2,965	3,074	3,164	3,271	3,326	2.5%
GRAD I	412	405	382	386	400	411	425	432	2.5%
GRAD II	1,078	1,030	974	982	1,018	1,048	1,083	1,101	2.5%
TOTAL	**8,337**	**8,063**	**7,620**	**7,683**	**7,963**	**8,198**	**8,474**	**8,616**	2.5%
NON RESIDENT									
LOWER	324	341	322	325	337	347	358	364	2.5%
UPPER	356	302	286	287	298	307	318	324	2.5%
GRAD I	74	57	54	55	57	58	60	61	2.5%
GRAD II	124	122	115	116	120	124	128	130	2.5%
TOTAL	**878**	**822**	**777**	**783**	**812**	**836**	**864**	**879**	2.5%
TOTAL									
LOWER	3,865	3,857	3,645	3,675	3,809	3,922	4,053	4,121	2.5%
UPPER	3,662	3,415	3,227	3,253	3,372	3,471	3,589	3,649	2.5%
GRAD I	485	461	436	440	456	469	485	493	2.5%
GRAD II	1,203	1,152	1,089	1,098	1,138	1,172	1,211	1,231	2.5%
TOTAL	**9,215**	**8,885**	**8,397**	**8,466**	**8,775**	**9,034**	**9,338**	**9,494**	2.5%
NOT STATE FUNDABLE									
LOWER	337	393	372	375	389	400	414	420	2.5%
UPPER	226	259	245	247	256	264	272	277	2.5%
GRAD I	80	90	85	85	88	91	94	96	2.5%
GRAD II	28	18	17	17	18	18	19	19	2.2%
TOTAL	**671**	**760**	**719**	**724**	**751**	**773**	**799**	**812**	2.5%

Note: Full-time Equivalent (FTE) student is a measure of instructional activity that is based on the number of credit hours that students enroll. FTE is based on the standard national definition, which divides undergraduate credit hours by 30 and graduate credit hours by 24. Note*: The Planned Annual Growth Rate is a compounded rate based on the following formula: (2021-22 value divided by the 2016-17 value) to the (1/5) exponent minus one.

ACADEMIC PROGRAM COORDINATION

New Programs For Consideration by University in AY 2016-17

The S.U.S. Council of Academic Vice Presidents (CAVP) Academic Program Coordination Work Group will review these programs as part of their on-going coordination efforts. The programs listed below are based on the 2015 Work Plan list for programs under consideration for 2016-18.

PROGRAM TITLES	CIP CODE 6-digit	AREA OF STRATEGIC EMPHASIS	OTHER UNIVERSITIES WITH SAME PROGRAM	OFFERED VIA DISTANCE LEARNING IN SYSTEM	PROJECTED ENROLLMENT *in 5th year*	PROPOSED DATE OF SUBMISSION TO UBOT
BACHELOR'S PROGRAMS						
Food Science	01.1001	STEM	UF		70	06-2016
Supply Chain Management	52.0203	STEM	FPU, UNF, UWF		50	06-2016
Digital Media	09.0702	STEM	FAU, FGCU CIP 50.0102 UCF, UF		60	04-2017
Public Health	51.2201	HEALTH	USF		80	04-2017
MASTER'S, SPECIALIST AND OTHER ADVANCED MASTER'S PROGRAMS						
Supply Chain Management	52.0203	STEM			50	06-2016
Aerospace Engineering	14.0201	STEM			10	04-2017
DOCTORAL PROGRAMS						
Aerospace Engineering	14.0201	STEM			5	04-2017
Doctor of Nursing Practice	51.3818	HEALTH	FAU, FIU, FSU, UCF, UF, UNF, USF	FIU, FAU (web-assisted), UCF, UNF, UF	60	04-2017

New Programs For Consideration by University in 2017-19

These programs will be used in the 2017 Work Plan list for programs under consideration for 2017-18.

PROGRAM TITLES	CIP CODE 6-digit	AREA OF STRATEGIC EMPHASIS	OTHER UNIVERSITIES WITH SAME PROGRAM	OFFERED VIA DISTANCE LEARNING IN SYSTEM	PROJECTED ENROLLMENT *in 5th year*	PROPOSED DATE OF SUBMISSION TO UBOT
BACHELOR'S PROGRAMS						
Integrated Media Arts	10.0304	None			50	04-2018
MASTER'S, SPECIALIST AND OTHER ADVANCED MASTER'S PROGRAMS						
Biomedical Sciences	26.0102	STEM	FSU, FAU, UCF		20	04-2018
Computational Science	30.3001	STEM	FSU		20	04-2018
Health Informatics	51.0706	HEALTH	UCF	UCF, USF	30	04-2018
DOCTORAL PROGRAMS						
Public Health (PhD)	51.2201	HEALTH	FIU, UF, USF		25	06-2018
Biology	26.0101	STEM	FAU, FIU, FSU, USF		20	06-2018

STUDENT DEBT & NET COST

Student Debt Summary

	2010-11	2011-12	2012-13	2013-14	2014-15
Percent of Bachelor's Recipients with Debt	84%	85%	86%	87%	87.8%
Average Amount of Debt *for Bachelor's who have graduated with debt*	$29,550	$29,700	$31,250	$31,410	$32,338

NSLDS Cohort Year	2008-11	2009-12	2010-13	2011-14	2012-15 Preliminary
Student Loan Cohort Default Rate (3rd Year)	18.3%	18.9%	14.7%	14.7%	14.0%

Cost of Attendance *(for Full-Time Undergraduate Florida Residents in the Fall and Spring of 2015-16)*

	TUITION & FEES	BOOKS & SUPPLIES	ROOM & BOARD	TRANSPORTATION	OTHER EXPENSES	TOTAL
ON-CAMPUS	$4,554	$1,138	$10,100	$1,214	$3,354	**$20,360**
AT HOME	$4,554	$1,138	$ 2,330	$1,712	$3,758	**$13,492**

Estimated Net Cost by Family Income *(for Full-Time Undergraduate Florida Residents in the Fall and Spring of 2015-16)*

FAMILY INCOME GROUPS	FULL-TIME RESIDENT UNDERGRADUATES HEADCOUNT	PERCENT		AVG. NET COST OF ATTENDANCE	AVG. NET TUITION & FEES	AVG. GIFT AID AMOUNT	AVG. LOAN AMOUNT
Below $40,000	3,076	60%		$8,081	$-2,382	$7,879	$6,216
$40,000-$59,999	733	14%		$11,705	$48	$5,484	$6,785
$60,000-$79,999	399	8%		$13,755	$2,024	$3,612	$6,504
$80,000-$99,999	235	5%		$14,255	$2,132	$3,553	$6,172
$100,000 Above	541	11%		$13,894	$2242	$3,435	$5,634
Not Reported	156	3%		$19,868	$5,264	$274	$129
TOTAL	**5,140**	**100%**	AVERAGE	**$10,720**	**$-769**	**$6,310**	**$6,071**

Notes: This data only represents Fall and Spring financial aid data and is accurate as of March 31, 2016. Please note that small changes to Spring 2015 awards are possible before the data is finalized. **Family Income Groups** are based on the Total Family Income (including untaxed income) as reported on student FAFSA records. **Full-time Students** is a headcount based on at least 24 credit hours during Fall and Spring terms. **Average Gift Aid** includes all grants and scholarships from Federal, State, University and other private sources administered by the Financial Aid Office. Student waivers are also included in the Gift Aid amount. Gift Aid does not include the parental contribution towards EFC. **Net Cost of Attendance** is the actual average of the total Costs of Attendance (which will vary by income group due to the diversity of students living on- & off- campus) *minus* the average Gift Aid amount. **Net Tuition & Fees** is the actual average of the total costs of tuition and fees (which will vary by income group due to the amount of credit hours students are enrolled) *minus* the average Gift Aid amount (see page 16 for list of fees that are included). **Average Loan Amount** includes Federal (Perkins, Stafford, Ford Direct, and PLUS loans) and all private loans. 'Not Reported' represents the students who did not file a FAFSA. The bottom-line **Total/Average** represents the average of all full-time undergraduate Florida residents (note*: the total Net Cost of Attendance does not include students who did not report their family income data.

UNIVERSITY REVENUES

University Revenues *(in Millions of Dollars)*

EDUCATION & GENERAL	2014-15	2015-16
Main Operations		
State Funds	$ 112.4	$ 96.7
Actual Tuition	$ 63.9	$ 66.4
SUBTOTAL	**$ 176.2**	**$ 163.0**
Health-Science Center / Medical Schools		
State Funds	$ 0	$ 0
Actual Tuition	$ 0	$ 0
SUBTOTAL	**$ 0**	**$ 0**
Institute of Food & Agricultural Sciences (IFAS)		
State Funds	$ 0	$0
Actual Tuition	$ 0	$ 0
TOTAL IFAS	**$ 0**	**$ 0**
EDUCATION & GENERAL TOTAL REVENUES	**$ 176.2**	**$ 163.0**
FAMU-FSU COLLEGE OF ENGINEERING	**$0**	**$12,999,685**

Note: State funds include General Revenue funds, Lottery funds appropriated by the Florida Legislature. Tuition includes tuition, tuition differential fees, and miscellaneous fees and fines for resident and non-resident undergraduate and graduate students net of waivers (as reported in the Operating Budget 625 report).

OTHER BUDGET ENTITIES		
Auxiliary Enterprises	$ 32.6	$ 40.6
Contracts & Grants	$ 51.3	$ 54.6
Local Funds	$ 83.2	$ 90.2
Faculty Practice Plans	$ 0	$ 0
OTHER BUDGET ENTITIES TOTAL REVENUES	**$ 167.1**	**$ 185.4**

UNIVERSITY TUITION, FEES AND HOUSING PROJECTIONS

Undergraduate Students	----------Actual----------			----------Projected----------			
	2013-14	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
Tuition:							
Base Tuition - (0% inc. for 2015-16 to 2019-20)	$105.07	$105.07	$105.07	$105.07	$105.07	$105.07	$105.07
Tuition Differential[5]	36.38	36.38	36.38	36.38	36.38	36.38	36.38
Total Base Tuition & Differential per Credit Hour	$141.45	$141.45	$141.45	$141.45	$141.45	$141.45	$141.45
% Change		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Fees (per credit hour):							
Student Financial Aid[1]	$5.16	$5.16	$5.16	$5.16	$5.16	$5.16	$5.16
Capital Improvement[2]	$6.76	$6.76	$6.76	$6.76	$6.76	$6.76	$6.76
Activity & Service	$10.50	$10.50	$10.50	$10.50	$10.50	$10.50	$10.50
Health	$6.91	$6.91	$6.91	$6.91	$6.91	$6.91	$6.91
Athletic	$13.97	$13.97	$13.97	$13.97	$13.97	$13.97	$13.97
Transportation Access	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Technology[1]	$5.16	$5.16	$5.16	$5.16	$5.16	$5.16	$5.16
Green Fee (USF, NCF, UWF only)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Student Life & Services Fee (UNF only)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Marshall Center Fee (USF only)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Student Affairs Facility Use Fee (FSU only)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Fees	$48.46	$48.46	$48.46	$48.46	$48.46	$48.46	$48.46
Total Tuition and Fees per Credit Hour	$189.91	$189.91	$189.91	$189.91	$189.91	$189.91	$189.91
% Change		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Fees (block per term):							
Activity & Service	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Health	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Athletic	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Transportation Access	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00
Marshall Center Fee (USF only)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Student Affairs Facility Use Fee (FSU only)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
List any new fee proposed							
Total Block Fees per term	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00
% Change		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Tuition for 30 Credit Hours	**$4,243.50**	**$4,243.50**	**$4,243.50**	**$4,243.50**	**$4,243.50**	**$4,243.50**	**$4,243.50**
Total Fees for 30 Credit Hours	**$1,583.80**	**$1,583.80**	**$1,583.80**	**$1,583.80**	**$1,583.80**	**$1,583.80**	**$1,583.80**
Total Tuition and Fees for 30 Credit Hours	**$5,827.30**	**$5,827.30**	**$5,827.30**	**$5,827.30**	**$5,827.30**	**$5,827.30**	**$5,827.30**
$ Change		**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
% Change		**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Out-of-State Fees							
Out-of-State Undergraduate Fee	$379.07	$379.07	$379.07	$379.07	$379.07	$379.07	$379.07
Out-of-State Undergraduate Student Financial Aid[3]	$18.95	$18.95	$18.95	$18.95	$18.95	$18.95	$18.95
Total per credit hour	$398.02	$398.02	$398.02	$398.02	$398.02	$398.02	$398.02
% Change		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Tuition for 30 Credit Hours	**$15,615.60**	**$15,615.60**	**$15,615.60**	**$15,615.60**	**$15,615.60**	**$15,615.60**	**$15,615.60**
Total Fees for 30 Credit Hours	**$2,152.30**	**$2,152.30**	**$2,152.30**	**$2,152.30**	**$2,152.30**	**$2,152.30**	**$2,152.30**
Total Tuition and Fees for 30 Credit Hours	**$17,767.90**	**$17,767.90**	**$17,767.90**	**$17,767.90**	**$17,767.90**	**$17,767.90**	**$17,767.90**
$ Change		**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
% Change		**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Housing/Dining[4]	$9,140.00	$10,896.00	$11,470.00	$11,470.00	$11,757.00	$12,051.00	$12,352.00
$ Change		**$1,756.00**	**$574.00**	**$11,470.00**	**$287.00**	**$294.00**	**$301.00**
% Change		**19.2%**	**5.3%**	**0.0%**	**2.5%**	**2.5%**	**2.5%**

[1] can be no more than 5% of tuition.

[2] as approved by the Board of Governors.

[3] can be no more than 5% of tuition and the out-of-state fee.

[4] combine the most popular housing and dining plans provided to students

[5] report current tuition differential. Only UF or FSU can reflect potential increases up to 6%.

DEFINITIONS

Performance Based Funding	
Percent of Bachelor's Graduates Enrolled or Employed ($25,000+) *in the U.S. One Year After Graduation*	This metric is based on the percentage of a graduating class of bachelor's degree recipients who are enrolled or employed (earning at least $25,000) somewhere in the United States. Students who do not have valid social security numbers and are not found enrolled are excluded. Note: This data now non-Florida employment data. Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP) analysis of Wage Record Interchange System (WRIS2) and Federal Employment Data Exchange (FEDES), and National Student Clearinghouse (NSC).
Median Wages of Bachelor's Graduates Employed Full-time in Florida One Year After Graduation	This metric is based on annualized Unemployment Insurance (UI) wage data from the fourth fiscal quarter after graduation for bachelor's recipients. UI wage data does not include individuals who are self-employed, employed out of state, employed by the military or federal government, those without a valid social security number, or making less than minimum wage. Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP), National Student Clearinghouse.
Average Cost per Bachelor's Degree *Costs to the University*	For each of the last four years of data, the annual undergraduate total full expenditures (includes direct and indirect expenditures) were divided by the total fundable student credit hours to create a cost per credit hour for each year. This cost per credit hour was then multiplied by 30 credit hours to derive an average annual cost. The average annual cost for each of the four years was summed to provide an average cost per degree for a baccalaureate degree that requires 120 credit hours. Sources: State University Database System (SUDS), Expenditure Analysis: Report IV.
Six Year FTIC Graduation Rate	This metric is based on the percentage of first-time-in-college (FTIC) students who started in the Fall (or summer continuing to Fall) term and had graduated from the same institution within six years. Source: Accountability Report (Table 4D).
Academic Progress Rate *2nd Year Retention with GPA Above 2.0*	This metric is based on the percentage of first-time-in-college (FTIC) students who started in the Fall (or summer continuing to Fall) term and were enrolled full-time in their first semester and were still enrolled in the same institution during the Fall term following their first year with had a grade point average (GPA) of at least 2.0 at the end of their first year (Fall, Spring, Summer). Source: Accountability Report (Table 4B).
University Access Rate *Percent of Undergraduates with a Pell-grant*	This metric is based the number of undergraduates, enrolled during the fall term, who received a Pell-grant during the fall term. Unclassified students, who are not eligible for Pell-grants, were excluded from this metric. Source: Accountability Report (Table 3E).
Bachelor's Degrees within Programs of Strategic Emphasis	This metric is based on the number of baccalaureate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis'. A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included). Source: Accountability Report (Table 4H).
Graduate Degrees within Programs of Strategic Emphasis	This metric is based on the number of graduate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis'. A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included). Source: Accountability Report (Table 5C).

BOG Choice Metrics	
Percent of Bachelor's Degrees Without Excess Hours	This metric is based on the percentage of baccalaureate degrees awarded within 110% of the credit hours required for a degree based on the Board of Governors Academic Program Inventory. Note: It is important to note that the statutory provisions of the "Excess Hour Surcharge" (1009.286, FS) have been modified several times by the Florida Legislature, resulting in a phased-in approach that has created three different cohorts of students with different requirements. The performance funding metric data is based on the latest statutory requirements that mandates 110% of required hours as the threshold. In accordance with statute, this metric excludes the following types of student credits (ie, accelerated mechanisms, remedial coursework, non-native credit hours that are not used toward the degree, non-native credit hours from failed, incomplete, withdrawn, or repeated courses, credit hours from internship programs, credit hours up to 10 foreign language credit hours, and credit hours earned in military science courses that are part of the Reserve Officers' Training Corps (ROTC) program). Source: State University Database System (SUDS).
BOT Choice Metrics	
Percent of R&D Expenditures Funded from External Sources FAMU	This metric reports the amount of research expenditures that was funded from federal, private industry and other (non-state and non-institutional) sources. Source: National Science Foundation annual survey of Higher Education Research and Development (HERD).
Preeminent Research University Funding Metrics	
Average GPA and SAT Score	An average weighted grade point average of 4.0 or higher and an average SAT score of 1200 or higher for fall semester incoming freshmen, as reported annually in the admissions data that universities submit to the Board of Governors. This data includes registered FTIC (student type='B','E') with an admission action of admitted or provisionally admitted ('A','P','X').
Public University National Ranking	A top-50 ranking on at least two well-known and highly respected national public university rankings, reflecting national preeminence, using most recent rankings, includes: Princeton Review, Fiske Guide, QS World University Ranking, Times Higher Education World University Ranking, Academic Ranking of World University, US News and World Report National University, US News and World Report National Public University, US News and World Report Liberal Arts Colleges, Forbes, Kiplinger, Washington Monthly Liberal Arts Colleges, Washington Monthly National University, and Center for Measuring University Performance.
Freshman Retention Rate (Full-time, FTIC)	Freshman Retention Rate (Full-time, FTIC) as reported annually to the Integrated Postsecondary Education Data System (IPEDS). The retention rates that are reported in the Board's annual Accountability report are preliminary because they are based on student enrollment in their second fall term as reported by the 28th calendar day following the first day of class. When the Board of Governors reports final retention rates to IPEDS in the Spring (usually the first week of April), that data is based on the student enrollment data as reported after the Fall semester has been completed. The preliminary and final retention rates are nearly identical when rounded to the nearest whole number.

6-year Graduation Rate (Full-time, FTIC)	Cohorts are based on undergraduate students who enter the institution in the Fall term (or Summer term and continue into the Fall term). Percent Graduated is based on federal rate and does not include students who originally enroll as part-time students, or who transfer into the institution. This metric complies with the requirements of the federal Student Right to Know Act that requires institutions to report the completion status at 150% of normal time (or six years). For more information about how this data is calculated, see: http://www.flbog.edu/about/budget/docs/performance_funding/PBF__GRADUATION_and_RETENTION_Methodology_FINAL.pdf.
National Academy Memberships	National Academy Memberships held by faculty as reported by the Center for Measuring University Performance in the Top American Research Universities (TARU) annual report, or the official membership directories maintained by each national academy.
Science & Engineering Research Expenditures ($M)	Science & Engineering Research Expenditures, including federal research expenditures as reported annually to the National Science Foundation (NSF).
Non-Medical Science & Engineering Research Expenditures ($M)	Total S&E research expenditures in non-medical sciences as reported to the NSF. This removes medical sciences funds (9F & 12F in HERD survey) from the total S&E amount.
National Ranking in S.T.E.M. Research Expenditures	The NSF identifies 8 broad disciplines within Science & Engineering (Computer Science, Engineering, Environmental Science, Life Science, Mathematical Sciences, Physical Sciences, Psychology, Social Sciences). The rankings by discipline are determined by BOG staff using the NSF WebCaspar database.
Patents Awarded (3 calendar years)	Total patents awarded by the United States Patent and Trademark Office (USPTO) for the most recent three calendar year period. Due to a year-lag in published reports, Board of Governors staff query the USPTO database with a query that only counts utility patents:"(AN/"University Name" AND ISD/yyyymmdd->yyyymmdd AND APT/1)".
Doctoral Degrees Awarded Annually	Doctoral degrees awarded annually, as reported annually in the Board of Governors Accountability Report.
Number of Post-Doctoral Appointees	The number of Postdoctoral Appointees awarded annually, as reported in the TARU annual report. This data is based on National Science Foundation/National Institutes of Health annual Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS).
Endowment Size ($M)	This data comes from the National Association of College and University Business Officers (NACUBO) and Commonfund Institute's annual report of Market Value of Endowment Assets - which, due to timing, may release the next fiscal year's data after the Board of Governors Accountability report is published.

Key Performance Indicators	
Teaching & Learning Metrics	
Freshmen in Top 10% of HS Graduating Class	Percent of all degree-seeking, first-time, first-year (freshman) students who had high school class rank within the top 10% of their graduating high school class. As reported by the university to the Common Data Set (C10).
Professional/Licensure Exam First-time Pass Rates	The number of exams with first-time pass rates above and below the national or state average, as reported in the annual Accountability report, including: Nursing, Law, Medicine (3 subtests), Veterinary, Pharmacy, Dental (2 subtests), and Physical Therapy.
Average Time to Degree for FTIC in 120hr programs	This metric is the *mean* number of years between the start date (using date of most recent admission) and the end date (using the last month in the term degree was granted) for a graduating class of first-time, single-major baccalaureates in 120 credit hour programs within a (Summer, Fall, Spring) year.
FTIC Graduation Rates In 4 years (or less)	As reported in the annual Accountability report (table 4D), First-time-in-college (FTIC) cohort is defined as undergraduates entering in fall term (or summer continuing to fall) with fewer than 12 hours earned since high school graduation. The rate is the percentage of the initial cohort that has either graduated from or is still enrolled in the same institution by the fourth academic year. Both full-time and part-time students are used in the calculation. The initial cohort is revised to remove students, who have allowable exclusions as defined by IPEDS, from the cohort.
Bachelor's Degrees Awarded	This is a count of baccalaureate degrees awarded as reported in the annual Accountability Report (Table 4G).
Graduate Degrees Awarded	This is a count of graduate degrees awarded as reported in the Accountability Report (Table 5B).
Bachelor's Degrees Awarded To African-American and Hispanic Students	Non-Hispanic Black and Hispanic do not include students classified as Non-Resident Alien or students with a missing race code – as reported in the Accountability Report (table 4I). Students who earn two distinct degrees in the same term are counted twice – whether their degrees are from the same six-digit CIP code or different CIP codes. Students who earn only one degree are counted once – even if they completed multiple majors or tracks. Percentage of Degrees is based on the number of baccalaureate degrees awarded to non-Hispanic Black and Hispanic students divided by the total degrees awarded - excluding those awarded to non-resident aliens and unreported.
Adult (Aged 25+) Undergraduates Enrolled	This metric is based on the age of the student at the time of enrollment (not upon entry). Age acts as a surrogate variable that captures a large, heterogeneous population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives.
Percent of Undergraduate FTE Enrolled in Online Courses	Full-time Equivalent (FTE) student is a measure of instructional activity that is based on the number of credit hours that students enroll. FTE is based on the US definition, which divides undergraduate credit hours by 30. Distance Learning is a course in which at least 80 percent of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time or space, or both (per 1009.24(17), F.S.).
Percent of Bachelor's Degrees in STEM & Health	The percentage of baccalaureate degrees that are classified as STEM by the Board of Governors in the SUS program inventory as reported in the annual Accountability Report (Table 4H).
Percent of Graduate Degrees in STEM & Health	The percentage of baccalaureate degrees that are classified as STEM by the Board of Governors in the SUS program inventory as reported in the annual Accountability Report (Table 5C).

Key Performance Indicators (continued)	
Scholarship, Research & Innovation Metrics	
Faculty Awards	Awards include: American Council of Learned Societies (ACLS) Fellows, Beckman Young Investigators, Burroughs Wellcome Fund Career Awards, Cottrell Scholars, Fulbright American Scholars, Getty Scholars in Residence, Guggenheim Fellows, Howard Hughes Medical Institute Investigators, Lasker Medical Research Awards, MacArthur Foundation Fellows, Andrew W. Mellon Foundation Distinguished Achievement Awards, National Endowment for the Humanities (NEH) Fellows, National Humanities Center Fellows, National Institutes of Health (NIH) MERIT, National Medal of Science and National Medal of Technology, NSF CAREER awards (excluding those who are also PECASE winners), Newberry Library Long-term Fellows, Pew Scholars in Biomedicine, Presidential Early Career Awards for Scientists and Engineers (PECASE), Robert Wood Johnson Policy Fellows, Searle Scholars, Sloan Research Fellows, Woodrow Wilson Fellows. As reported by the Top American Research Universities – see: http://mup.asu.edu/research_data.html.
Total Research Expenditures ($M)	Total expenditures for all research activities (including non-science and engineering activities) as reported in the National Science Foundation annual survey of Higher Education Research and Development (HERD).
Percent of R&D Expenditures funded from External Sources	This metric reports the amount of research expenditures that was funded from federal, private industry and other (non-state and non-institutional) sources. Source: National Science Foundation annual survey of Higher Education Research and Development (HERD).
Licenses/Options Executed	Licenses/options executed in the fiscal year for all technologies as reported in the annual Accountability Report (table 6A).
Number of Start-up Companies	The number of start-up companies that were dependent upon the licensing of University technology for initiation as reported in the annual Accountability Report (table 6A).

Student Debt Summary

Percent of Bachelor's Recipients with Debt

This is the percentage of bachelor's graduates in a given academic year who entered the university as a first-time-in-college (FTIC) student and who borrowed through any loan programs (institutional, state, Federal Perkins, Federal Stafford Subsidized and unsubsidized, private) that were certified by your institution - excludes parent loans. Source: Common Dataset (H4).

Average Amount of Debt for Bachelor's who have graduated with debt

This is the average amount of cumulative principal borrowed (from any loan program certified by the institution) for each native, FTIC bachelor's recipient in a given academic year that graduated with debt – see metric definition above. This average does NOT include students who did not enter a loan program that was certified by the institution. Source: Common Dataset (H5).

Student Loan Cohort Default Rate (3rd Year)

Student loan cohort default rate (CDR) data includes undergraduate and graduate students, and refers to the three federal fiscal year period when the borrower enters repayment and ends on the second fiscal year following the fiscal year in which the borrower entered repayment. Cohort default rates are based on the number of borrowers who enter repayment, not the number and type of loans that enter repayment. A borrower with multiple loans from the same school whose loans enter repayment during the same cohort fiscal year will be included in the formula only once for that cohort fiscal year. Default rate debt includes: Federal Stafford Loans, and Direct Stafford/Ford Loans – for more information see: http://ifap.ed.gov/DefaultManagement/CDRGuideMaster.html.

Three Year CDR

Cohort Fiscal Year	Year Published	Borrowers in the Numerator / Borrowers in the Denominator	3-Yr Time Period (Numerator) / 1-Yr Time Period (Denominator)
2009	2012	Borrowers who entered repayment in 2009 and defaulted in 2009, 2010 or 2011 / Borrowers who entered repayment in 2009	10/01/2008 to 9/30/2011 / 10/01/2008 to 9/30/2009
2010	2013	Borrowers who entered repayment in 2010 and defaulted in 2010, 2011 or 2012 / Borrowers who entered repayment in 2010	10/01/2009 to 9/30/2012 / 10/01/2009 to 9/30/2010
2011	2014*	Borrowers who entered repayment in 2011 and defaulted in 2011, 2012 or 2013 / Borrowers who entered repayment in 2011	10/01/2010 to 9/30/2013 / 10/01/2010 to 9/30/2011
2012	2015	Borrowers who entered repayment in 2012 and defaulted in 2012, 2013 or 2014 / Borrowers who entered repayment in 2012	10/01/2011 to 9/30/2014 / 10/01/2011 to 9/30/2012
2013	2016	Borrowers who entered repayment in 2013 and defaulted in 2013, 2014 or 2015 / Borrowers who entered repayment in 2013	10/01/2012 to 9/30/2015 / 10/01/2012 to 9/30/2013
2014	2017	Borrowers who entered repayment in 2014 and defaulted in 2014, 2015 or 2016 / Borrowers who entered repayment in 2014	10/01/2013 to 9/30/2016 / 10/01/2013 to 9/30/2014
2015	2018	Borrowers who entered repayment in 2015 and defaulted in 2015, 2016 or 2017 / Borrowers who entered repayment in 2015	10/01/2014 to 9/30/2017 / 10/01/2014 to 9/30/2015

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: VI-A

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: **Levels of Academic Standing for Undergraduate Students**

Rationale: This Regulation follows the academic standards of the University and requires the maintenance of grade point averages and reasonable conformance to a program of study. Schools and colleges may choose not to consider students for admission and may deny continuation in a degree program if the students fail to maintain reasonable academic progress, as specified by the college, school or department.

Attachment: Regulation 4.012 – Levels of Academic Standing for Undergraduate Students

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve Regulation 4.012
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Regulation of
Florida A&M University

4.012 Levels of Academic Standing for Undergraduate Students.

This Regulation follows the academic standards of the University and requires the maintenance of grade point averages and reasonable conformance to a program of study. Schools and colleges may choose not to consider students for admission and may deny continuation in a degree program if the students fail to maintain reasonable academic progress, as specified by the college, school or department.

1) **Good Academic Standing. :** Florida A&M University considers a student in good standing if he or she is eligible to continue or to re-enroll at the Uuniversity.

1) occurs when a student's cumulative grade point average (GPA) is 2.0 or above.

2)

2) **Academic Warning.** Academic warning occurs when a new student's cumulative grade point average (GPA) is below 2.02.0 for the first time during their enrollment. at the end of the student's first term at the University. A sStudents on Academic Warning will have a hold placed on the student'stheir registration until he or she they hasve met with an academic advisor and developed evised an academic plan of study to improve their GPA.return to Good Academic Standing at the end of their next enrolled term.

3)

Academic Probation. Academic Probation occurs Wwhen a continuing (i.e., second term or thereafter at the University) student who washas been previously been placed on Academic Warning's fails to achieve a cumulative GPA falls below of 2.0. or greater, or whose cumulative GPA again falls below a GPA of 2.0, the student will be placed on Academic Probation. A continuing student is a student enrolled in his or her second semester or thereafter at the University. Students who have been placed on Academic Probation may not register for more than fifteen (15) semester hours. In addition, aA hold is placed on their student's registration

until the~~y~~ student has~~ve~~ met with an advisor and ~~devised~~developed an academic plan of study to improve ~~their~~his or her GPA~~academic performance~~. ~~return to Good Academic Standing at the end of their next enrolled term.~~ A student who is on probation and who~~'~~se cumulative GPA does not rise to a 2.0 or above at the end of the semester in which ~~th~~they are enrolled ~~in~~ will be placed on academic suspension.

~~3)~~

4) **Academic Suspension and Appeal.**

a. **Academic Suspension.** ~~occurs when~~ A~~a~~ student on Academic Probation whose ~~-~~cumulative GPA remains below a 2.0 at the end of the current semester ~~term~~in which he or she is ~~they are~~ enrolled will be placed on Academic Suspension. A s~~the cumulative GPA of a student on Academic Probation is still below 2.0 after the student's next enrolled term. S~~tudents~~s~~ on Academic Suspension is ~~are~~ not in good academic standing at the U~~u~~niversity. T~~Students on Academic Suspension cannot re-enroll at the University for at least two (2) consecutive terms, excluding the summer term.~~ he student will receive written notice of the Academic Suspension along with information regarding the Readmission Appeal Process.

b. **Appeals.** ~~Notification of Academic Suspension will accompany a list of extenuating circumstances required to file a readmission appeal with the University Academic Appeals Committee. They A student must file a petition for readmission prior to the beginning of any term in which they are eligible to return.~~ All petitions for readmission ~~petitions~~ are forwarded to the University ~~Admissions~~ Academic Appeals~~s~~ Committee for review. The University Academic Appeals Committee's decision is final. ~~. This committee will recommend approval or disapproval of each petition to the Provost and Vice President for Academic Affairs. The decision of the Provost Academic Appeals Committee will be final.~~ The Academic Appeals Committee will notify the University Admissions Committee of all readmission appeal decisions.

i. **Extenuating Circumstances (Immediate) Appeal.** A student may immediately initiate the Readmission Appeal process in certain limited cases as provided in the Notice of Academic Suspension. This option is only available to those students who have extenuating circumstances as outlined in the Notice.

ii. **Readmission Appeal.** If a student does not qualify to appeal the academic suspension upon receipt of the notice, or if a student was previously denied an appeal, the student will remain on Academic Suspension. During the student's Academic Suspension, the student will be required to fulfill the following conditions in order to resubmit an appeal:

~~a. If the petition for readmission is approved, the student is placed back on Academic Probation and is eligible to reenroll at the university. The student must adhere to an individualized academic plan to maintain satisfactory academic progress. If the readmission appeal is denied, the student will remain on academic suspension and will be required to fulfill the following conditions in order to resubmit another appeal:~~

Suspension~~ded~~ for at least two (2) consecutive ~~terms~~semesters, excluding the summer semesters; ~~term;~~

b. A student must file a petition for readmission prior to the beginning of any semester in which they are eligible to return;

c. Enroll and successfully complete the FAMU online Academic Success Course;

d. Meet with an academic advisor to develop ~~and adhere to~~ an individualized academic plan of study;

e. Have a mathematical possibility of ~~-~~earning a cumulative GPA of 2.0~~-~~ or greater ~~above~~ in one semester;

f. O~~o~~ther conditions as may be applicable on a case-by-case basis ~~as~~ identified by the Academic Appeals Committee;~~.~~ and

g. Any college may specify additional academic standards and students are responsible for observing these regulations.

iii. **Readmission.** If the petition for readmission is approved, the student is placed back on Academic Probation and is eligible to reenroll at the U~~u~~niversity. The student must adhere to an individualized academic plan to maintain satisfactory academic progress.

iv. **Colleges, Schools, and Departments.** Colleges, Departments and/or Schools may deny continuation in a degree program if the student fails to

maintain reasonable academic progress, as specified by the college, school or department.

~~5)~~

~~4) Students readmitted from Academic Suspension are placed back on Academic Probation. Students will be placed on Academic Dismissal instead of receiving a second Academic Suspension. (a) Students on Academic Dismissal are not allowed to re-enroll at the University unless they are reinstated. 4.012 Levels of Academic Standing for Undergraduate Students 1 of 2~~

~~4.~~ **Academic Dismissal.** Academic Dismissal occurs when a student who w~~h~~as previously on Academic Suspension was readmitted but the student failed to maintain a GPA of a 2.0 or greater~~been denied an appeal from Academic Suspension~~. Students who have been placed on Academic Dismissal are not allowed to reenroll at FAMU. However, a student who had not earned an Associate of Arts (AA) degree from ~~unless they have earned an Associate of Arts degree from~~ a Florida Public State~~Community~~ College ~~Institution~~(also known as "community college") prior to entering FAMU, has the option of applying for readmission to FAMU by attaining an AA degree at a State College. After successful completion of the AA degree, the student may apply for readmission at FAMU. ~~. This option is not available for students who have already earned an Associate of Arts degree prior to being placed on dismissal.~~ As part of the reinstatement process, students may request that their cumulative GPA be reset after re-entry. The new cumulative GPA will begin immediately upon enrollment after being readmitted. All previous grades will remain on the student's~~'~~ transcripts; however, they will not be calculated into the student's~~'~~ cumulative GPA. For honor~~'~~s purposes, all grades, including grades earned prior to the academic dismissal, will be considered. Students are required to check with the Office of Financial Aid to determine if any additional criteria~~on~~ ~~are~~is required in order to retain/maintain their eligibility for financial aid.

~~5) Reinstatement after Academic Dismissal~~

~~a) An undergraduate student who has been academically dismissed from the University may petition to be reinstated after earning an Associate of Arts degree from a community college. This option is not available for students who have already earned~~

~~an Associate of Arts degree prior to being dismissed. As part of the reinstatement, students may request that their cumulative GPA be renewed after reentry. The new cumulative GPA will begin immediately upon enrollment after being reinstated. All previous grades will remain on the student's transcripts however, they will not be calculated into the student's cumulative GPA. For honors classification purposes, all grades, including grades earned prior to the academic dismissal, will be considered.~~

~~b) After returning to the University, a student must remain in Good Academic Standing by maintaining a cumulative GPA of 2.0 or higher. Student petitions for reinstatement will be considered on a case-by-case basis by the University Admissions Committee. All decisions of the Admissions Committee are final. If a reinstated student's cumulative GPA falls below 2.0, the student will be academically dismissed and is not eligible to return.~~

~~6)~~ 6) **Effective Date.** ~~(a)~~ This regulation is effective with the Fall ~~2014~~ 2016 semester and later cohort of students. Students entering the University prior to the Fall ~~2014~~ 2016 semester are subject to the Levels of Academic Standing policy in effect at the time of their matriculation.

Specific Authority: Article IX, section 7(c), Florida Constitution, and Board of Governors Regulation 1.001. History: New July 10, 2014. 4.012 Levels of Academic Standing for Undergraduate Students. Amended _____, 2016.

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: VI-B

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: **Faculty Credentialing Policy**

Rationale: The purpose of this policy is to codify the credentials requirements that are utilized by Florida A&M University. The credentials requirements ensure that the University employs competent faculty members who are qualified to carry out the goals and mission of the University in teaching, research and service. At least 25 percent of the discipline course hours in each undergraduate major shall be taught by faculty members holding a terminal degree, which is usually the earned doctorate in the discipline.

Attachment: BOT Policy 2008-06 – Faculty Credentialing Policy

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve BOT Policy 2008-06.

Florida Agricultural and Mechanical University
Board of Trustees Policy

Board of Trustees Policy Number: 2008-06	Date of Adoption: August 12, 2008 Date of Revision: June , 2016

Subject	**Faculty Credentialing Policy**
Authority	Section 7(d), Article IX, Florida Constitution; Board of Governors Regulation 1.001
Applicability	This policy applies to faculty at Florida A&M University.

I. Purpose

The purpose of this policy is to codify the credentials requirements that are utilized by Florida A&M University.

The credentials requirements ensure that the University employs competent faculty members who are qualified to carry out the goals and mission of the University in teaching, research and service. At least 25 percent of the discipline course hours in each undergraduate major shall be taught by faculty members holding a terminal degree, which is usually the earned doctorate in the discipline.

II. Policy

FAMU requires that faculty be appropriately credentialed to teach assigned courses on the undergraduate and graduate levels, and perform other assigned responsibilities including research, service, and student advisement.
~~Further, at least 25 percent of the discipline course hours in each undergraduate major shall be taught by faculty members holding the terminal degree usually the earned doctorate in the discipline.~~

A. Primary Credentials:

The primary credentials considered are those identified by the Southern Association of Colleges and Schools-Commission on Colleges (SACS-COC) in *The Commission Guidelines: Faculty Credentials* as follows*:*

1. Faculty teaching general education courses at the undergraduate level: doctorate or master's degree in the teaching discipline or doctorate or master's degree with a concentration in the teaching discipline (minimum of 18 graduate semester hours in the teaching discipline).

2. Faculty teaching baccalaureate courses: doctorate or master's degree in the teaching discipline or doctorate or master's degree with a concentration in the teaching discipline (minimum of 18 graduate semester hours in the teaching discipline).

3. Faculty teaching graduate and post-baccalaureate course discipline or a related discipline.

4. Graduate teaching assistants: master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline, regular in-service training, and planned and periodic evaluations."

5. Faculty teaching developmental studies courses: Bachelor's degree in the teaching discipline or a Bachelor's degree in a related discipline with competencies in the discipline.

B. Other Credentials:

The University may also consider other credentials to substantiate the competence of faculty, such as:

1. A record of research activity;
2. Service;
3. Presentations;
4. Professional Licensure;
5. Certifications;
6. Significant professional experiences;
7. Honors and awards;
8. Continuous documented excellence in teaching;
9. Achievements that contribute to effective teaching; student learning outcomes; and
10. Publications in the faculty member's area of specialization.

C. Exceptional Cases:

An individual may be considered for instructional or other assignments normally requiring the higher academic credentials, where it can be clearly demonstrated ~~that~~ by virtue of accomplishments and professional experiences that the ~~an~~ individual lacking a doctorate or master's degree has the knowledge and skills normally associated with a person who is fully qualified on the basis of academic credentials.~~, the individual may be considered for instructional or other assignments normally requiring the higher academic credentials~~. In such cases, the hiring official and the person making the assignment must provide a written rationale and maintain full documentation of the individual's accomplishments and professional experiences to justify the hiring decision and assignment.

III. Other Requirements

A. Tenured, tenure track and adjunct faculty must meet the guidelines stated above.
B. Tenured and tenure track faculty should have the terminal degree in the teaching discipline or other credentials considered appropriate by the specialized accrediting body for the program.
C. Teaching assistants must meet the guidelines stated above, specific to graduate teaching assistants.

Attachment(s)	n/a

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Date: May 11, 2016
Agenda Item: VII-A

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: BS Food Science (CIP Code 01.1001)

Rationale: The College of Agriculture and Food Sciences is proposing to move its existing major in Food Science within the BS Agricultural Sciences to a stand-alone degree in Food Science, designated as STEM in the Board of Governors Areas of Strategic Emphasis, beginning Fall 2016. The BS degree in Food Science will be 120 semester credit hours in length and will offer two options: (1) Science and Technology and (2) Business and Industry. Enrollment opportunities are great in that FAMU will be one of two institutions within the State University System to offer a stand-alone degree in Food Science.

Graduates of this degree program will have many opportunities for employment in the private and government sectors in areas such as food product development, food quality control, food safety inspection, food manufacturing, food emergency management, and food research. There are also many non-governmental organizations that utilize the skills of food scientists as they fulfill their mission, especially when it involves providing food or teaching food preservation to food producers. Additionally, those with an entrepreneurial spirit will be able to join the numerous entrepreneurs who have found great success in all fields of the food industry. Beyond the employment sector, graduates will be able to pursue graduate degrees in food science and compete academically due to the program's strong academic content. All of these opportunities have been obtained by current FAMU graduates majoring in Food Science and there will be even more opportunities for graduates with a Bachelor of Science degree in the subject area instead of a major. By offering such a degree, FAMU positions itself to make a stronger contribution to the food industry in the State of Florida and better fulfill the state, land-grant, and traditional missions.

The estimated projections and program costs for years one to five are as follows:

Implementation Timeframe	Projected Enrollment (From Table 1)	
	HC	FTE
Year 1	40	35
Year 2	49	43
Year 3	61	52
Year 4	63	55
Year 5	75	65

Projected Program Costs (From Table 2)				
E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
$15,323	$536,322	$21,543		$557,865
$8,474	$550,825	$43,086		$593,911

Attachments: B.S. Food Science Full Proposal

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve the BS Food Science (CIP Code 01.001) in the College of Agriculture and Food Sciences, effective Fall 2016.

Board of Governors, State University System of Florida

Request to Offer a New Degree Program

(Please do not revise this proposal format without prior approval from Board staff)

Florida A&M University University Submitting Proposal	Fall 2016 Proposed Implementation Term
College of Agriculture and Food Sciences	Division of Agricultural Sciences
Name of College(s) or School(s)	Name of Department(s)/ Division(s)
Food Science	B.S. in Food Science
Academic Specialty or Field	Complete Name of Degree
01.1001	
Proposed CIP Code	

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees		Elmira Mangum President	4-27-16 Date
Signature of Chair, Board of Trustees	Date	Vice President for Academic Affairs	4-26-16 Date

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1 in Appendix A. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2 in Appendix A. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	Projected Enrollment (From Table 1)	
	HC	FTE
Year 1	40	35
Year 2	49	43
Year 3	61	52
Year 4	63	55
Year 5	75	65

Projected Program Costs (From Table 2)				
E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
$15,323	$536,322	$21,543		$557,865
$8,474	$550,825	$43,086		$593,911

INTRODUCTION

I. Program Description and Relationship to System-Level Goals

A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including majors, concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.

Food Science is the study of the physical, biological, and chemical makeup of food; and the concepts underlying food processing is the basis of what Forbes magazine has described as the world's biggest industry. It is an applied science that utilizes disciplines such as biology, chemistry, physics, mathematics, and engineering in an attempt to better understand food processes and ultimately improve food products for the consumer. The Institute of Food Technology, IFT, is the largest food science organization in the world and is recognized as the principal professional organization with an authoritative voice concerning issues associated with food science, food technology and the food industry.

The first classes in Food Science were offered in the College of Agriculture and Food Sciences, CAFS (formerly the College of Engineering Sciences Technology and Agriculture) in 1994 following support from the Title III program to develop a food science curriculum. Food Science is currently offered as a major in the Bachelor of Science in Agricultural Sciences. It graduated its first student with a Bachelor of Science degree in 1996 and to date there has been over 100 graduates.

This proposal seeks permission from the FAMU Board of Trustees to permit the College of Agriculture and Food Sciences to offer a stand-alone Bachelor of Science degree program in Food Science with the following two tracks: (1) Science and Technology and (2) Business and Industry. The Science and Technology track will prepare students for graduate school and the more technical areas of the food industry. Graduates of the Business and Industry track will be better prepared to enter into the food industry in areas of technical and business management. All students will have to complete 120 credit hours in either track to obtain the Bachelor of Science degree.

The Bachelor of Science degree in Food Science at Florida A&M University (FAMU) will permit the university to make a stronger contribution to the food industry in the State of Florida and better fulfill its State, Land-grant, and traditional missions. Graduates of this degree program will have many opportunities for employment in the private and government sectors. Examples of areas in which Food Science jobs are found include food product development, food quality control, food safety inspection, food manufacturing, food emergency management, and food research. These jobs are found in Government departments such as Agriculture, Defense, Health and Human Services, Commerce and State. The private sector food science jobs are in companies that deal with commodities such as meats, vegetables, fruits, beverages, cereal, dairy, and flavors. In addition there are many Non-Governmental Organizations, NGOs, which utilize the skills of food scientists as they fulfill their mission, especially when it involves providing food or teaching food preservation to food producers.

Graduates of this degree will also be able to pursue graduate degrees in food science

and because of the program's strong academic content they will also be able to gain entry into professional schools as well as graduate programs in other disciplines. Additionally, those with an entrepreneurial spirit will be able to join the numerous entrepreneurs who have found great success in all fields of the food industry. All of these opportunities have been obtained by current FAMU graduates majoring in Food Science and there will be even more opportunities for graduates with a Bachelor of Science degree in the subject area instead of a major.

B. Please provide the date when the pre-proposal was presented to CAVP (Council of Academic Vice Presidents) Academic Program Coordination review group. Identify any concerns that the CAVP review group raised with the pre-proposed program and provide a brief narrative explaining how each of these concerns has been or is being addressed.

The proposed degree in Food Science to be offered at Florida A&M University was reviewed by the CAVP Academic Program Coordination group at its February 7, 2014 meeting. The proposal was recommended with no concerns.

C. If this is a doctoral level program please include the external consultant's report at the end of the proposal as Appendix D. Please provide a few highlights from the report and describe ways in which the report affected the approval process at the university.

NA

D. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which specific goals the program will directly support and which goals the program will indirectly support (see link to the SUS Strategic Plan on the resource page for new program proposal).

The Florida State University System, SUS, 2012-2025 strategic plan revolves around three main themes of Excellence, Productivity, and Strategic Priorities for a Knowledge Economy. These points drive the priorities of the SUS, which are teaching and learning, scholarship, research, and innovation, and community and business engagement. The proposed degree in Food Science is consistent with the SUS strategic plan in its three main themes and areas of priority.

Food Science excellence at FAMU will be the result of a BS degree in Food Science. It will raise the bar with respect to academic instruction, research and community engagement. This degree will make the academic offerings in the agricultural sciences in the College of Food and Agriculture more complete and competitive with peer institutions. It will also enhance the food science research environment in a College that houses many excellent research programs. The presence of the BS Food Science degree program will permit the College and University to have a higher quality of engagement with our community and businesses in matters relating to food especially in the areas of food safety, food security, food manufacturing, food composition and the large number of obesity related issues.

This degree will result in students from traditionally underrepresented groups and returning adults having improved the access to and completion of a degree in food science and preparation for entry into the food industry. It will ensure that the College has a critical mass of faculty so that its research and commercialization activities will be more productive. The students in this degree will have many opportunities to engage in

research with faculty and be involved in the community.

Food Science is an applied science that utilizes all of the named Science, Technology, Engineering and Mathematics, STEM, areas and is recognized as a stem discipline. The degree in Food Science in FAMU's College of Agriculture and Food Sciences (CAFS) will improve the access of Florida's students to training in a STEM area, which is considered a strategic priority for a knowledge economy. A well-established Food Science degree program will have the capacity to attract and compete successfully for external funding. The BS in Food Science will produce graduates for Florida jobs and graduate school as evidenced by the productivity of the current major.

E. If the program is to be included in a category within the Programs of Strategic Emphasis as described in the SUS Strategic Plan, please indicate the category and the justification for inclusion.

The Programs of Strategic Emphasis Categories:

1. Critical Workforce:
   - Education
   - Health
   - Gap Analysis
2. Economic Development:
   - Global Competitiveness
3. Science, Technology, Engineering, and Math (STEM)

Please see the Programs of Strategic Emphasis (PSE) methodology for additional explanations on program inclusion criteria at the resource page for new program proposal.

Food Science is in the STEM area of Programmatic Strategic Emphasis as described in the SUS Strategic Plan. It is also included in the Department of Homeland Security's 2012 STEM-Designated degree program list for international students seeking OPT (Optional Practical Training) visas. Food Science is also recognized as a STEM list of occupations listed by the Florida Department of Economic Opportunity.

F. Identify any established or planned educational sites at which the program is expected to be offered and indicate whether it will be offered only at sites other than the main campus.

The BS in Food Science degree will be offered at the main FAMU campus located in Tallahassee using the primary CAFS buildings of Perry-Paige and the Teleconference Center. The program will also have access to the two auxiliary CAFS sites namely its farm in Quincy and the Viticulture Center on Mahan Drive. All students will be required to have an internship prior to graduation and all of these will be done at sites that are not affiliated with FAMU but are institutions engaged in the food science production, research, service or instruction. The Food Science faculty prior to a student beginning an internship will preapprove every site.

INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY

II. Need and Demand

A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or

reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.

Food is a driver of economic development and its globalization in recent years has driven the need for persons with training in the food sciences. This need was recognized in the Food Safety Modernization Act of 2010, which directed the FDA to hire 1000 new field staff by 2014. This will in turn ensure that the private sector has to hire more food scientists so that they may be in compliance with the new laws and regulations being promulgated. The February / March 2014 issue of Food Quality Magazine states "*Changes in the food industry, including increased regulatory attention on food safety, are having profound effects on career development paths and opportunities for food safety professionals, according to experts involved in industry and academia*."

The Department of Labor's Bureau of Labor Statistics has predicted a 10% growth in Food Scientists jobs but this is an underestimate because of the difficulty in defining all food science jobs due to the nature of the food industry. For example a food safety job in a meat plant may be also be classified under microbiology, animal science, and analytical chemistry to name but three other categories. In 2012 data from the Florida Department of Economic Opportunity lists 160 Food Scientists employed in Florida, but the same data lists another 40,300 jobs under the categories of Agricultural and Food Science Technicians, Biological Technicians, Chemical Technicians, Food Service Managers, Life Scientists and Technical Sale Representatives, all of which may be filled by a Food Science graduate.

Agriculture and tourism are the two largest industries in Florida and Food is one means that joins them. The tourism sector not only needs for food to be abundant, tasty, and moderately priced but also to be safe whereas the agricultural sector needs to keep its produce safe, extend its shelf life and add value. Food manufacturing is the second largest in the Florida manufacturing sector and contributes more than $5 billion to the state's GDP. However, despite being a national agricultural power, a tourist mecca and having the fourth largest population Florida is not in the top ten food processing states. There is thus an increased need for more food processing in the state and by extension more workers trained in food science.

At the national level the training of African-Americans in Food Science at the BS level is very low and this leads to an even lower representation at the graduate level. Data from the Food and Agricultural Education Information System, FAEIS, an online database supported by the USDA's National; Institute of Food and Agriculture, only twenty five of the 790 students enrolled in Fall 2012 in Food Science in Land-Grant schools were African-American. The enrollment numbers in the non-Land-Grant Colleges is even worse with 8 of the 379 students enrolled in Fall 2012 classified as African –Americans. There is thus no only a great need for more trained food scientists in the state and nation but the need for more African-Americans to be trained as food scientists is even greater. The FAEIS data also shows that nationwide the growth in Food Science enrollment of over 50% in the last decade thus indicating that the need for trained food scientist is national and not restricted to just minorities.

B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with

prospective students.

The major in Food Science in FAMU's College of Agriculture and Food Science has consistently been able to enroll more than 30 students each semester for most of its existence and in the last two years this number has reached as high as 60. In the current academic year the program has attracted its largest ever freshman class of ten students based on the recruitment outreach. Students will be interested in what would be the only degree in the university to provide a legitimate entry for students into the food, nutrition and culinary industries as professionals as well as a pathway to other professional fields such as medicine, public health and law.

C. If substantially similar programs (generally at the four-digit CIP Code or 60 percent similar in core courses), either private or public exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). In Appendix C, provide data that support the need for an additional program.

The University of Florida, UF, is the only university in Florida with an IFT approved Food Science degree. The Food Science Department of the University of Florida has expressed support for a new BS degree in Food Science at FAMU and welcomes the additional training available to prepare Floridians for the great careers in the Food Industry (see Appendix C). A degree in food and nutrition sciences is also offered at Florida State University. During its existence we have had no students leave UF for FAMU in food science or vice versa.

The two universities draw their students from differing demographic groups and there is no reason to believe that a degree in Food Science at FAMU would impact the University of Florida. In fact the growing need for a diverse pool of food scientists would only be enhanced by the State's two land-grant schools providing training in food science as they do now in agricultural sciences. FAMU Food Science is currently supporting UF's Department of Food Science and Human Nutrition's proposal for a National Needs Fellowship grant to develop food safety professionals with a focus on process validation principles through an integrated food safety and processing graduate program.

D. Use Table 1 in Appendix A (1-A for undergraduate and 1-B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 40 credit hours per year and graduate FTE will be calculated as 32 credit hours per year. Describe the rationale underlying enrollment projections. If students within the institution are expected to change majors to enroll in the proposed program at its inception, describe the shifts from disciplines that will likely occur.

The College of Agriculture and Food Sciences currently offers a major in Food Science within the existing BS Agricultural Sciences. Approximately 40 students are currently enrolled in the existing major as of Spring 2016. It is anticipated that at least 30 of those students will migrate into the proposed degree in Food Science upon approval in year one as shown in Table 1-A. In year two, we expect a small increase of students,

approximately 10, to sustain a healthy enrollment in the new program. However, by year five it is anticipated that the program will have grown to about 75 students.

E. Indicate what steps will be taken to achieve a diverse student body in this program. If the proposed program substantially duplicates a program at FAMU or FIU, provide, (in consultation with the affected university), an analysis of how the program might have an impact upon that university's ability to attract students of races different from that which is predominant on their campus in the subject program. The university's Equal Opportunity Officer shall review this section of the proposal and then sign and date Appendix B to indicate that the analysis required by this subsection has been completed.

FAMU is an equal opportunity and equal access university and the BS degree in Food Science will uphold that mission. The new BS degree will actively recruit students from all high schools and community colleges in Florida with no regard to race, color, religion, creed, gender, national origin, disability, marital or veteran status, or any other legally protected status. CAFS has both a diverse student and faculty body and this degree program will build upon this diversity to ensure that all students encounter a supportive environment regardless of race, color, religion, creed, gender, national origin, disability, marital, or veteran status.

III. Budget

A. Use Table 2 in Appendix A to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 in Appendix A to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)

As the data in Table 2 in Appendix A indicate, the bulk of the costs for this program will be in the form of faculty salaries and benefits. The faculty that support the existing major in Food Science will continue to teach in the proposed BS Food Science. One lab technician will also support the program. The other expenses, not itemized in either table, include expenses for program publicity, marketing, such as advertising and brochures; supplies and materials.

B. Please explain whether the university intends to operate the program through continuing education on a cost-recovery basis, seek approval for market tuition rate, or establish differentiated graduate-level tuition. Provide a rationale for doing so and a timeline for seeking Board of Governors' approval, if appropriate. Please include the expected rate of tuition that the university plans to charge for this program and use this amount when calculating cost entries in Table 2.

NA

C. If other programs will be impacted by a reallocation of resources for the proposed program, identify the impacted programs and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program

might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).

The implementation of the Food Science degree will impact the number of students in the B.S. in Agricultural Sciences degree. However, Food Science and Animal Science majors have been responsible for the bulk of degrees offered under this degree. Also, the implementation of this degree will impact instructional resources and will result in less adjunct faculty being used. Resources allocated to this program will impact no other instructional program in the College.

D. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).

The increase in students created by the BS in Food Science degree will not lead to a major need for any additional general education or elective courses outside of the degree to be offered.

E. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.

The Food Science program has had relationships with Florida's government agencies such as the Department of Agriculture and Consumer Services (FDACS) and the Florida Department of Health. It has also developed relationships with private companies such as Publix Manufacturing, Miller Coors, and Sanderson Farms. Some of these entities have provided resources to support the academic program in the form of scholarships, internships and jobs to our current students. It is quite likely that a degree program will only help create a more supportive environment for both government and private food agencies to support the program. In 2013 the program received a grant from the USDA to develop a consortium to support preparation of students for the food industry.

IV. Projected Benefit of the Program to the University, Local Community, and State

Use information from Tables 1 and 2 in Appendix A, and the supporting narrative for "Need and Demand" to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.

This Food Science degree program would be of significant benefit to FAMU, the local community (including surrounding counties), and the state of Florida. As shown in Table 1 at least 75 students will be enrolled in the program by the fifth year making it a major contributor to the growing food industry in Florida and the largest producer of minority

food scientists in the State and maybe the nation. FAMU will reap immediate benefit from this program even before the first graduates are produced. These early benefits will occur as the program builds stronger linkages with the food industry, leading to FAMU being recognized as a major center of food training which will lead to numerous opportunities for the university in the area of food education and training at all levels. However, most of the benefits will be made possible through the actions of the students and faculty in the program.

Student activity in the forms of volunteering in the community as well as pursuing internship opportunities with local food institutions will be beneficial to the local community. They will be able to impact the community especially those with few resources, by performing services in areas such as food safety, food preservation, nutrition education, food preparation and food storage and handling. This student activity will be generated by student club activity and assignments by the faculty.

The Food industry in Florida as a whole will benefit from the largest concentration of food scientists in North Florida. Besides the obvious benefit provided by their instructional duties, the faculty will perform research and be resource persons to the community. The type of research conducted by faculty in the Food Science program will be aimed at finding solutions to food problems affecting the state of Florida, especially those affecting North Florida and the FAMU clientele. They will also be able to support the push for enhanced STEM activities in Florida and contribute to the resolution of community food issues.

V. Access and Articulation – Bachelor's Degrees Only

A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a separate request to the Board of Governors for an exception along with notification of the program's approval. (See criteria in Board of Governors Regulation 6C-8.014)

The proposed BS Food Science will be 120 credit hours in length.

B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see link to the Common Prerequisite Manual on the resource page for new program proposal). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as "limited access."

If the proposed prerequisites are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60

credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional "track" of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.

The following courses listed below are the approved common prerequisites for Food Science as found in the Common Prerequisite Manual of the State University System. All of these prerequisites are included in the proposed Science and Technology track in the Food Science degree program at FAMU and would be required of all students regardless of their mode of entry into this degree track. Students in the Business and Industry track will be required to take all of the prerequisites listed below except for MAC 2311, calculus.

BSC 1010 & 1010L (or BSC X010C, BOT X0101 & X0101L, BOT X0101C, ZOO X0101 & X0101L, ZOO X010C)

BSC 1011 & 1011L (or BSC X011C, BOT X0111 & X0111L, BOT X0111C, ZOO X011 & X011L, ZOO X011C)

CHM 1045 &1045L (or CHM 1045C, CHM X040 & X041 & X045L)

CHM 1046 & 1046L (or CHM X046C)

ECO 2013 (or ECO X023)

PHY 2053 & 2053L (or PHY X004 & X004L)

STA 2023 (or STA X014 or STA X122)

MAC 2311

C. **If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that Florida College System transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in Board of Governors Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.**

FAMU does not plan to seek Limited Access status for the BS Food Science degree.

D. **If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see link to the Statewide Articulation Manual on the resource page for new program proposal). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.**

NA

INSTITUTIONAL READINESS

VI. Related Institutional Mission and Strength

A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan (see link to the SUS Strategic Plan on the resource page for new program proposal).

The goal of the BS in Food Science is to increase the number of persons who are trained in the Food Sciences and able to support the food industry in Florida. This degree supports the FAMU goal 1.4 of enhancing the current academic degree programs and goal 1.5 of developing new degrees to meet market and student demand.

B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.

The degree in Food Science will build upon the strengths in Agricultural research in CAFS as well as other STEM activities in the University. In CAFS it will permit greater integration with the centers for Water and Air Quality, Viticulture, and Biological Control in dealing with food challenges faced by the people of Florida. For example, a strong Food Science program can accelerate the push to expand the food uses of the muscadine grape by the Center for Viticulture as well as partner with the Center for Biological Control in developing food safety measures to protect the nation's food supply against invasive species.

C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology in table format of the activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.

Planning Process

Date	Participants	Planning Activity
Jan 30, 2012	Anderson, Sr., Lee; Cooper, Adrienne; James. Neil; Jolly, Lue; Kairo, Moses; Musingo, Mitwe; Onokpise, Oghenekome; Paul, Harriett; Phills, Bobby; Pitter, Gita; Richardson, Vonda; Sarjeant, Keawin; Thomas, Marlon; Thomas, Verian; Walters, Lurleen; and Wright, Glen	Dean's Ad Hoc committee established to examine resources in the College and determine how best to use the resources to enhance Food Science in the College of Agriculture and Food Sciences
February 20, 2012	James. Neil; Musingo, Mitwe; Onokpise, Oghenekome; and Cooper, Adrienne	Meeting reviewed suggestions received regarding development of a BS in Food Science degree.
March 19, 2012	James. Neil; Jolly, Lue; Mobley,	Discussed how and where the College

	Ray; Musingo, Mitwe; Onokpise, Oghenekome; Richardson, Vonda; Thomas, Verian; and Walters, Lurleen	of Agriculture and Food Sciences can find resources for a stand-alone BS program in Food Science.

Events Leading to Implementation

Date	Implementation Activity
Spring 2015	All new courses in the curriculum will be submitted for approval by the University
Summer 2016	Recruitment of the First BS in Food Science Freshmen class

VII. Program Quality Indicators - Reviews and Accreditation

Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.

The major in Food Science was part of the state-required seven-year review conducted by the university in regard to the agricultural programs at FAMU and was also reviewed as part of the USDA review of Land-grant programs. The later review clearly recommended the program's elevation to a full degree. If the BS degree in Food Science is approved for IFT recognition, the program will be subject to a review every five years by the Institute of Food Technologists for the IFT approved degree together with an annual report after approval.

The consultant also indicated that the Food Science program will be strengthened as Research and Extension programs in CAFS are strengthened. The recently hired nutrition faculty will have an extension assignment and the new food science faculty will have a research assignment. The existing food science faculty are 100% academic and although the College remains committed to split appointments, it still has not been implemented. The split assignments being given to the new faculty will aid in strengthening the food science program and the extension and research activities should have a positive impact as well on the overall enhancement of CAFS' academic programs.

The reviewer recommended that Food Science explore linkages with other programs such as Health. The new BS degree in Food Science will help make this collaboration easier. We have already received positive support from Public Health for a joint BS-MPH program, but as with other collaborations nothing substantial will be done without there being a BS in Food Science. Furthermore, the recent move by the university to list minors on degree diplomas will provide an opportunity for other majors to pursue a minor in Food Science.

VIII. Curriculum

A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor's degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.

All students in the B.S. of Food Science degree will be expected to fulfill the following student learning outcomes:

Intended Student learning Outcomes
Outcome 1 Communication Skills Graduates will demonstrate proficiency in written, oral and visual communication within the Food Sciences.
Outcome 2 Content Knowledge Graduates will be able to apply discipline specific knowledge and skills to solve problems related to food as it travels from the farm to the consumer.
Outcome 3 Critical Thinking Skills Graduates will demonstrate research proficiency as evidenced by the application of the scientific method to problems/issues in the Food Sciences.
Outcome 4 Application of Knowledge and Skills Graduates will be able to apply curricular and co-curricular knowledge and skills in the field of Food Sciences.
Outcome 5 Life Long Learning Graduates will possess the requisite knowledge and skills for entry into graduate programs.

B. Describe the admission standards and graduation requirements for the program.

The admission requirements for this degree will be the same as the general University entrance requirements.

C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.

The degree will consist of 120 credit hours. Both options will consist of 36 hours of general education and 30 hours of core food science courses. The Science and Technology option will consist of 30 hours of support courses and 24 hours of track and elective courses. The Business and Industry option will consist of 29 hours of support courses. Current students in Food Science will be allowed to change their program from a major in food science in the BS in Agricultural Science degree to the BS in Food Science degree proving that they are not beyond the junior year. The Science and Technology option in the BS in Food Science requires current majors to do 17 different credit hours and the Business and Industry option requires 19 different credit hours during the junior and senior years. It would thus be possible for students who have not passed the junior year to substitute these new credit hours with a minimum of change to their 120 credit hour degree.

D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.

BS in Food Science, Science and Technology Option

Freshman Year

Course Number and Name	Credit Hrs.
AGG 2004, Intro. to Agric. Sciences	1
AMH 2091 African American History	3
BSC 1010, General Biology I	3
BSC 1010L, General Biology I Lab	1
ENC 1101 Freshman Comm. Skills I	3
SPC 2608 Public Speaking	3
BSC 1011, General Biology II	2
BSC 1011L General Biology II Lab	2
CHM 1045, General Chemistry I	3
CHM 1045L, General Chem. I Lab.	1
ENC 1102, Freshman Comm. Skills II	3
FOS 2002, Food and Man	3
SYG 2000 or **PSY 2012**, Soc. Sci. Gen. Ed. Req.	3
TOTAL CREDITS	**31**

Sophomore Year

Course Number and Name	Credit Hrs.
CHM 1046, General Chemistry II	3
CHM 1046L General Chemistry II Lab	1
MAC 1147, Pre-Calculus Mathematics	4
HUN 2401 Human Nutrition	3
Humanities General Education Requirement	3
CHM 2210, Organic Chemistry 1	3
CHM 2210L, Organic Chemistry 1 Lab	1
MAC 2311 Calculus with Analytic Geometry	4
ECO 2013, Principles of Economics I	3
FOS 3042, Introduction to Food Science	3
FOS 3042L, Introduction to Food Science Lab	1
TOTAL CREDITS	**2929**

Junior Year

Course Number and Name	Credit. Hrs.
CHM 2211, Organic Chemistry 2	3
CHM 2211L, Organic Chemistry 2 Lab	1
MCB 3010C General Microbiology with Lab	4
FOS 4425C Food Manufacturing & Storage with Lab	4
STA 2023 Intro. to Probability & Statistics I	3
BCH 4033 Biochemistry I	3
BCH 4033L Biochemistry I Laboratory	1
PHI 3601, Ethics	3
FOS 3063, Food Science Careers and Opportunities	1
FOS 4222C Food Microbiology and Safety with Lab	4
PHY 2053 College Physics	3
PHY 2053L College Physics Lab.	1

TOTAL CREDITS	**31**

Senior Year

Course Number and Name	Credit Hrs.
FOS 3XXX, Principles of Food Engineering	3
FOS 4311, Food Chemistry	3
FOS 4311L Food Chemistry Laboratory	1
FOS 4454C Food Fermentation	3
FOS 4XXX Food Science Internship	3
MAN 3025, Principles of Management	3
FOS 4321C, Food Analysis	4
FOS 4435C, Food Product Development	3
FOS XXXX Food Science Elective	3
Restricted Elective	3
TOTAL CREDITS	**2929**
FOUR YEAR CREDIT TOTAL	**120**

**Restricted Electives are determined in consultation with the advisor and the courses are offered in the College of Agriculture and Food Sciences*

BS in Food Science, Business and Industry Option

Freshman Year

Course Number and Name	Credit Hrs.
AGG 2004, Intro to Agric. Sciences	1
AMH 2091 African American History	3
BSC 1010, General Biology I	3
BSC 1010L, General Biology I Lab.	1
ENC 1101 Freshman Comm. Skills I	3
SPC 2608 Public Speaking	3
BSC 1011, General Biology II	2
BSC 1011L, General Biology II Lab.	2
CHM 1045, General Chemistry I	3
CHM 1045L, Gen. Chemistry I Lab.	1
ENC 1102, Freshman Comm. Skills II	3
FOS 2002, Food and Man.	3
SYG 2000 or **PSY 2012**, Social Science Gen. Ed.	3
TOTAL CREDITS	**31**

Sophomore Year

Course Number and Name	Credit Hrs.
CHM 1046, General Chemistry I	3
CHM 1046L General Chemistry I Lab	1

MAC 1147 Pre-Calculus Mathematics	4
ECO 2013, Prin. of Economics I	3
Humanities Gen. Education Req.	3
CHM 2210, Organic Chemistry 1	3
CHM 2210L, Organic Chemistry 1 Lab.	1
MAC 2233 Business Calculus	3
HUN 2401 Human Nutrition	3
FOS 3042, Introduction to Food Science	3
FOS 3042L, Introduction to Food Science Lab	1
FOS 2XXX Seminar in Food Business	1
TOTAL CREDITS	**29**

Junior Year

Course Number and Name	Credit Hrs.
MCB 3010C Microbiology with Lab	4
FOS 4425C Food Manufacturing & Storage with Lab	4
PHY 2053 College Physics	3
PHY 2053L College Physics Lab.	1
STA 2023 Introduction to Probability & Statistics I	3
ACG 2021 Financial Accounting Principles	3
AEB 3300 Marketing of Agricultural Products	3
ECO 2023, Prin. of Economics II	3
PHI 3601, Ethics	3
FOS 3063, Food Science Careers and Opportunities	1
FOS 4222C Food Microbiology and Safety with Lab	4
TOTAL CREDITS	**32**

Senior Year

Course Number and Name	Credit Hrs.
FOS 4454C Food Fermentation	3
FOS 4XXX Food Science Internship	3
FOS 4XXX, Food Selection and Preparation	3
Free Elective	3
MAN 3025 Prin. of Management	3
BUL 4130, Legal Environment of Business	3
FOS 4321C or **FOS 4311 & 4311L,** Food Analysis or Food Chemistry	4
FOS 4435C, Food Product Development	3
Restricted Elective*	3
TOTAL CREDITS	**28**
FOUR YEAR CREDIT TOTAL	**120**

**Restricted Electives are determined in consultation with the advisor and the courses are offered in the College of Agriculture and Food Sciences*

E. Provide a one- or two-sentence description of each required or elective course.

FOS 2002, Food and Man (3) An introductory course that reviews the origins and development of food and examines its interaction with society by examining factors influencing food consumption, food behavior, food trends and food policies.

FOS 2XXX Seminar in Food Business (1) A seminar that exposes students to the business aspects of food and the types of business practices done in the food industry.

FOS 3XXX, **Principles of Food Engineering** (3) An introductory course to the engineering principles used in the food industry

FOS 3042, Introduction to Food Science (3) A general introductory course in food science that includes aspects of food preservation and processing, food safety, food additives, food legislation and regulation**.**

FOS 3042L, Introduction to Food Science Lab (1**)** A laboratory course to accompany FOS 3042. Students are able to test the theoretical principles covered in the lecture through laboratory experiment.

FOS 3121, Sensory Science (3) Trains students to measure sensory characteristics of food and use the results to evaluate factors affecting food quality**.**

FOS 3429, Processing of Plant Foods (3) The scientific principles involved in the various methods of fruit and vegetable harvesting, pre-processing and processing techniques are discussed using lectures and demonstrations.

FOS 4XXX, **Food Selection and Preparation** (3) A course in the methods used by food institutions in the selection and preparation of food for consumers.

FOS 4XXX, Food Science Internship (3) Supervised attachments at various food organizations thereby providing students with hands on experience and exposure to a working environment in the food industry.

FOS 4202, Food Sanitation (3) Covers the principles associated with sanitation in food processing and preparation operations.

FOS 4222C, Food Microbiology and Safety (4) A lecture and laboratory course in food microbiology with particular reference to food production, spoilage, preservation, sanitation and poisoning. Food safety is also covered.

FOS 4311, Food Chemistry (3) The chemical composition of foods is examined especially as related to food properties and function. Reaction mechanisms of chemical processes affecting food quality are discussed.

FOS 4311L, Food Chemistry Laboratory (1) Laboratory course to accompany FOS 4311. Students are able to test the theoretical principles covered in the lecture through laboratory experiment

FOS 4321C, Food Analysis (4) Application of physical and chemical analytical methods to the quantitative determination of various food constituents and additives.

FOS 4425C, Principles of Food Manufacturing and Safety with Lab (4) The scientific principles governing the various methods of food manufacturing and storage are explained. An Accompanying lab links theory and practice.

FOS 4435C, Food Product Development (3) A capstone course that integrates knowledge gained in prior courses. It provides an opportunity for students to utilize their knowledge in the conceptualization and development of a new food product(s).

FOS 4454C, Food Fermentations (3). Microbiological, chemical and physical aspects of diverse food fermentations are discussed with emphasis on grape fermented products.

FOS 4641, Functional Foods (3) Discusses the physiological effects of foods and food components capable of promoting good health and preventing or alleviating diseases.

FOS 4731, Food Laws and Regulation (3) Reviews the history of food law and examines the impact of mandatory and optional food laws and regulations exercised by state, federal and international agencies on food quality, safety, and nutrition.

FOS 4942, Food Safety Practicum (3) A course in food safety practice done through interaction with government and industry food safety activities.

F. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and indicate whether any industry advisory council exists to provide input for curriculum development and student assessment.

The academic guidance issued by the Institute of Food Technology served as a guide in developing the curriculum and courses. Although there is not an advisory council for the Food Science program, one of the outcomes of the current USDA Capacity Building grant will be the formation of a public/private consortium and this body will act as the industry line within the program. The major has a long history of faculty interactions with industry persons via common service committees and visits, which have provided avenues for input.

G. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.

The major learned society that would be associated with the new degree in Food Science would be the Institute of Food Technologists (IFT). The program would expect to be in a position to seek IFT credentialing by its third year in existence provided there is sufficient enrollment to warrant it. The IFT resource guide for approval and re-approval of undergraduate programs is in the Appendix. The principal obstacle to approval will be processing facilities.

H. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?

NA

I. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2 in Appendix A. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

The delivery method is expected to be predominantly traditional in the early years but in keeping with the goals of the university many courses will become hybrids and some exclusively online. Online courses are expected to increase with faculty growth and as the university attempts to reach more nontraditional and students unable to travel to Tallahassee for a variety of reasons.

Currently there are no ongoing discussions to offer joint programs with other State schools. However, there are currently online class links with some HBCUs.

IX. Faculty Participation

A. Use Table 4 in Appendix A to identify existing and anticipated full-time (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).

See Table 4 in Appendix A.

B. Use Table 2 in Appendix A to display the costs and associated funding resources for existing and anticipated full-time faculty (as identified in Table 2 in Appendix A). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.

Tables 4 and 2 provide a picture of the human and fiscal resources required to execute this degree program in food science over a five year period, 2016 to 2021. The fiscal data has been calculated using a fringe rate of 34% for faculty and 43% for USPS. Information from these tables when combined with data from Table 1 shows that the E&G cost per student FTE will start at $15,323 in 2016 and fall to $8,474 in the fifth year and that the personnel required will increase from 3.25 faculty person-year and 1 USPS FTE in year one to 3.58 faculty person-year and 1 USPS FTE in year 5.

In the initial year, 2016, current faculty Drs. James and Musingo, will be joined by a nutritionist and another food scientist and each faculty will provide 0.75 person-year of service. Position number 17113000, has been transferred into the Food Science program for employment of a nutritionist as well as position number 19592000 for employment of a Food Scientist. Both of these positions were filled Fall 2015. Dr. Sarjeant will provide 0.25 C&G person year of service but his service is expected to grow to 0.5 person year by the fifth year due to enrollment growth. The Food Engineer will teach a food engineering course requiring 0.08 person-year of service. A full-time laboratory technician will also support the degree program.

Expenditures in the fifth may increase over the year one budget due to an increase in the use of Dr. Sarjeant's services due to the need for more classes caused by student growth and this growth will also cause expenses to grow from $10,000 to $20,000.

C. Provide in the appendices the abbreviated curriculum vitae (CV) for each existing faculty member (do not include information for visiting or adjunct faculty).

See Appendix B

D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.

For most of the last decade two full time faculty assisted by an adjunct faculty has primarily manned this program. Despite this the faculty has been productive in teaching research and service. In the past five years, Spring 10 to Fall 14, the program has offered an average of 29 undergraduate credit hours per semester to an average of 244 students using primarily 2 Full time faculty and 1 adjunct faculty. (*See table below*)

Semester / Year	Food Science	Number of Students	Full time Faculty	Adjunct Faculty
Spring 10	25	194	2.2	1
Fall 10	35	199	2.2	1
Spring 11	31	238	2.2	1
Fall 11	31	318	2.2	1
Spring 12	30	300	2.2	1
Fall 12	31	286	2.2	1
Spring 13	23	208	1.2	3
Fall 13	31	269	2.2	1
Spring 14	24	211	2.2	1
Fall 14	29	213	2.2	1
Totals	**290**	**2436**	**21**	**12**
Average	**29.0**	**243.6**	**2.1**	**1.2**

During this period the program also graduated 29 undergraduate and 2 graduate (MS) students. The faculty have also pioneered a videoconference class, AGG 4420, with other HBCUs, executed a grant to expose our students to food safety in the government sector, and obtained a $147,000 grant from the USDA to improve food industry opportunities for our students.

Although teaching has been the primary focus of the faculty in order to meet current enrollment demands, a few research projects have been performed. Two graduate students who graduated in 2012 both conducted research, made conference presentations, and a publication is in preparation. With the hiring of new faculty in 2015, increased research productivity is expected of the program.

The faculty has demonstrated a commitment to service both on and off campus. On campus, they currently serve on the General Education Assessment Committee, Curriculum Committee, College Assessment Committee, and the Library committee to name those that meet regularly. Off campus faculty skills have been used in civic organizations and committees of the state government.

X. Non-Faculty Resources

A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved.

LIBRARY RESOURCES IN SUPPORT OF THE COLLEGE OF AGRICULTURE AND FOOD SCIENCES

Prepared by FAMU Librarians, February 2012 and Revised November 2014

Collections

Library resources and services are sufficient to ensure the achievement of the goals and outcomes of the College of Agriculture and Food Sciences. The University Libraries provide collections of current books, periodicals, and pertinent reference materials, which are readily accessible to students and are sufficient in scope to support the Agriculture and Food Sciences curriculum. The Samuel H. Coleman Memorial Library (the main library) and branch libraries provide traditional print, as well as electronic access to full text databases, e-journals, and e-books.

The following table shows library holdings targeted for use by the general campus and community population, as well as holdings targeted to support the College of Agriculture and Food Sciences.

Library Resources	General	Agriculture	Food Sciences
Holdings	1,450,857	117,986	4,890

Books	1,258,072	112,362	3,753
Microforms	203,899	36,650	63
Media	25,0680	363	45
Electronic books	114,496	9,790	2,953
Journals/Serials	102,783	4,168	387
Electronic Journals	78,208	2,644	608
Electronic databases	320	70	34

In addition to the library resources cited above, FAMU is a depository for United States government documents. This collection contains more than 4,891 full-text electronic titles and 156,949 print volumes. Of this number, 24,740 government documents are related to agriculture and 21,417 are available online.

The University maintains borrowing agreements and memberships that mutually enhance resources availability for FAMU and other Florida learning communities. Partnerships are with the State University Libraries of Florida, the Florida College System Libraries and the State Library of Florida. Memberships are with the Florida Virtual Campus (FLVC), and the FLVC Florida Distance Learning and Student Services. Florida public postsecondary college and university libraries provide services directly and indirectly to students and faculty of State of Florida postsecondary institutions. Over 108,873 volumes held by the other 40 Florida public postsecondary institutions supplement the FAMU social work collections. The following information details the additional resources and services available to FAMU students and faculty.

Libraries	**General Resources**	**Agriculture**	**Food Sciences**
State of Florida Universities	15,257,337	239,129	14,938
Florida College System	4,883,380	5,384	209,314

Faculty and students also have access to the Publication of Archival, Library & Museum Materials (PALMM) Collection. This collection is a cooperative initiative of the public Universities of Florida to provide digital access to unique archival resources for research and scholarship. The PALMM collection contains 478 items related to Agriculture.

Budget

The following chart illustrates the University Libraries' funding over the last five years and its expenditures for Agriculture and Food Sciences programs during that period.

University Libraries Budget

Year	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Library Budget	$2,551,096.00	$2,500,401.00	$2,625,803.00	$3,417,950.00	3,511,311.00
Expenditures for Agriculture and Food Sciences					
Books	$26,964.00	$13,268.00	$7,913.00	$24,898.00	$28,450.00
Journals	$18,252.00	$22,645.00	$143,738.00	$155,214.00	$166,855.00
Databases	$556,810.00	$590,206.00	$613,983.00	$754,852.00	$763,230.00
Total	**$602,026.00**	**$626,119.00**	**$765,634.00**	**$934,964.00**	**$958,535.00**

In addition to the funds provided by the University, several electronic resources in support of Agriculture and Food Sciences are funded by the Florida Center for Library Automation at an annual cost of approximately $405,952.

Access to Collections and Services

Students, faculty and staff have access to collections, resources and services 24 hours a day, seven days a week, either through the 141 hours that the main library is open or through the library web page. Through the University Libraries' web page, faculty and students have full access to the FAMU library catalog on or off campus, and the library catalogs of the State University System and Florida College System libraries. Online resources and services are available within the libraries, from campus computers, in faculty offices, and from residence halls. Off-campus access is also available 24 hours a day to authenticated users (students, faculty, and staff). Support services such as instruction, interlibrary loans, loan renewals, course reserves, reference assistance, and distance learning services are also accessible from the web page.

Services

FAMU Libraries provide a full range of traditional and innovative library services. Users have access to reference services via local and toll free telephone, electronic mail, online chat service (AskALibrarian), and fax. Services enable users to access and to use information resources in the libraries and from remote locations. The Information Commons, in Coleman Library, allows users to access main library services from one common area. Several Library services are available from this service point. Services include borrowing privileges, interlibrary loan, course reserves, reference and research services, and systems support services.

Borrowing Privileges

Students, faculty, and staff have borrowing privileges at the FAMU Libraries, and reciprocal borrowing privileges to the 40 public universities and colleges in Florida. Borrowers may view and renew items that are currently checked out through the online catalog.

Interlibrary Loan

Students, faculty, and staff who are currently enrolled and engaged in academic research have Interlibrary Loan (ILL) borrowing privileges to the 40 public universities and colleges in Florida and to other libraries globally. Requests may be initiated in person or through the online catalog, which along with reciprocal borrowing and the provision of licensed databases, provides access to materials that the University does not own.

Course Reserves

Print and electronic materials may be placed on reserve at the Libraries. The reserve service provides a central and convenient location for students to retrieve materials. These materials are owned by the University or come from the private collections of faculty who place materials on reserve for enrolled students.

Reference and Research Services

On site and virtual reference/research services are provided. Reference Services include individual research/consultation, the provision of electronic and print research guides and the provision of online tutorials. Reference librarians provide a variety of instructional services to meet the information literacy needs of students, faculty, staff, administrators, and the community at large.

Instruction/Information Literacy

The University Libraries provide competent, quality, and timely instruction through a variety of instructional services. Information is delivered through informal and point of use instruction, individual and group instruction, formal orientations and literacy sessions, orientation to new student groups, subject specific scheduled workshops, printed handouts, research guides and online tutorials. Instruction is provided to local users as well as to distance learners. Information literacy sessions are designed to equip users with the skills needed to locate, evaluate, and use library information resources and services. Formal literacy instruction is based upon goals as defined by classroom faculty. These classes are held in state-of-the-art classrooms, which allow hands-on interactive instruction. Library instruction is based upon guidelines published by the Association of College and Research Libraries (ACRL) Guidelines for Instruction Programs in Academic Libraries.

Liaison Program

Librarians work with all academic units to assure that the collection supports defined curricular goals and that adequate services, including instruction are provided. The College of Agriculture and Food Sciences has appointed a representative to the Library Collection Development Committee. This liaison works in collaboration with the subject librarian for the College of

Agriculture and Food Sciences as well as other librarians to evaluate, select, and purchase resources recommended for Agriculture and Food Sciences programs.

Systems Support Services

The Systems Department provides and maintains 250 public computers along with software, hardware and support services necessary for providing and using information resources. Computers are configured to provide access to the libraries' web page and online catalog. Computers are also configured with various types of production software allowing users' access to the Microsoft Office Suite (Word, Excel, PowerPoint, OneNote, InfoPath, Groove, and Access), Write-N-Cite, Course Compass, SPSS, SAS, Census Tract and etc. Additional services are made available in response to customer service surveys and other assessment.

Computers are located on each floor of the main library and in all branch libraries. Printing is available from all computers. Documents queued to print may be picked up from any print station in the main library or any branch library. Separate email stations are available near the Information Commons Desk. A scanner that provides scanning of photos and multiple document formats and sizes is available.

A help desk is staffed as part of the Information Commons to assist users with software applications and technology support. Helpdesk staff assists users with directional questions, laptop registration and circulation, referrals and resolution of computing and printing needs and issues.

Staff

All Library and related personnel meet or exceed minimal educational requirements as defined by the Association of College and Research Libraries (ACRL). Librarians hold master's degrees from ALA accredited schools. Additionally, two faculty librarians have completed the specialists' degree in library science and four faculty librarians have completed master's degrees in other subject disciplines. The University employs 15 librarians. Support staff are also very well qualified, evidenced by three support staff holding a master's degree and 17 support staff holding bachelor's degrees.

Facilities

All faculty and students have full access to the facilities of FAMU's Coleman Memorial Library and branch libraries. These facilities more than adequately support faculty and student use of information technology for instruction, learning and research. Coleman Memorial Library occupies approximately 88,964 net square feet. Almost 20,000 additional square feet are available in the branch libraries. The University Libraries have a seating capacity of 834, including group study rooms, a student study lounge and cafe, and 20 graduate/faculty study carrels. Coleman Library also includes an information literacy classroom and teleconference rooms. All library facilities enjoy dense fiber optic wiring (one outlet for every 40 square feet of floor space) to the desktop. In addition to fiber wiring, much of the main library and its immediate grounds are wireless, enabling students and faculty convenient and generous access to the wireless network using their own supported laptops, or they may borrow one of 24 network-ready laptops from the Library Systems Department for use in the library.

The Office of Instructional Technology is housed in Coleman Library. Instructional Technology contains two teleconference centers/distance learning classrooms, with a combined seating capacity of over 50 people, designed for both satellite teleconferencing and for mediated viewing. The OIT also contains an open computer laboratory and faculty development laboratory. Audiovisual resources and equipment are available for faculty to reserve and/or view.

Florida A&M University Libraries

Agriculture and Food Science Journals

The University Libraries have access to over 900 electronic journals in support of Agriculture and Food Sciences. The following is a selected list of high impact Food Science journals, followed by a list of links by subject area.

Selected Food Science Journals

- Comprehensive Reviews in Food Science and Food Safety
- Critical Reviews in Food Science and Nutrition
- Food Chemistry
- http://famuproxy.fcla.edu/login?url=http://www.sciencedirect.com/science/journal/09242244Food Hydrocolloid
- Food Microbiology
- International Journal of Food Microbiology
- Journal of the Academy of Nutrition and Dietetics
- Molecular Nutrition & Food Research
- Postharvest Biology and Technology
- Trends in Food Science & Technology

Agriculture, Food Science, and Veterinary Medicine Journals

The number in parenthesis indicates the number of e-journals held in the respective subject area.

- Agriculture - General (363)
- Animal Sciences (205)
- Plant Sciences (189)
- Veterinary Medicine (146)

Florida A&M University Libraries

Agriculture and Food Sciences Databases

Access Science

Provides access to the McGraw-Hill Encyclopedia of Science & Technology, the Dictionary of Scientific & Technical Terms, and the McGraw-Hill Yearbooks of Science & Technology. The database contains over 7,000 scientific topics including agriculture and food engineering.

AGNIC

AGNIC provides full text access to over 60 topics in the areas of agriculture, food, and natural resources.

Agricola

Bibliographic database consisting of literature citations for journal articles, monographs, proceedings, theses, patents, translations, audiovisual materials, computer software, and technical reports pertaining to all aspects of agriculture.

Agricola (Public Access)

The National Agricultural Library's (NAL) Web Gateway to AGRICOLA (AGRICultural OnLine Access). The database includes journal articles, book chapters, short reports, and reprints, as well as, access to the NAL online catalog.

Agriculture Network Information Center

Provides over 5,000 serial publications, books, reports, conference proceedings, translations and limited distribution literature in aquatic sciences.

Biological & Agricultural index Plus

The database includes abstracts and full text coverage for selected journals. Periodical coverage includes a wide range of scientific journals, from popular to professional, that pertain to biology and agriculture. About 45 percent of the focus is on agriculture.

Cab Abstracts

A bibliographic covering the significant research and development in the fields of agriculture, forestry, human health and nutrition, animal health, and the management and conservation of natural resources.

Cab Direct

Provides access to bibliographic and full text applied life science articles.

IEEE Xplore

Provides full text access to journals and technical literature in electrical engineering, computer science, and electronics, includes agricultural engineering.

INSPEC

Provides bibliographic information and abstracts on the world's output of published works in physics, electrical engineering and electronics, computing, and information technology, including physics in agriculture, computers in agriculture, and electricity in agriculture.

ISI Web of Science

Articles, abstracts, and citations from Citation Index, Social Science Citation Index, and Arts & Humanities Citation Index.

ProQuest Agriculture Journals

Provides full text and images from agriculture, animal and veterinary sciences, plant sciences, forestry, aquaculture and fisheries, farming and food and nutrition journals.

ScienceDirect

The ScienceDirect Database is the electronic full text version of approximately 650 of Elsevier's traditional research journals including the fields of Chemistry and Chemical Engineering; Earth and Planetary Sciences; Engineering and Technology; Environmental Science; and Life Sciences.

SciFinder

Provides access to journal articles and patent information from many scientific disciplines, including agricultural science. Access single and multi-step reactions, experimental and predicted properties, and substance information from the CAS REGISTRY.

Wiley Online Library

Full text access to a multidisciplinary collection of over 600 journals and books covering life, health and physical sciences, social science, and the humanities.

B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 3 in Appendix A. Please include the signature of the Library Director in Appendix B.

It is not likely that the Library will have to provide any additional resources above and beyond what is currently provided.

C. Describe classroom, teaching laboratory, research laboratory, office, and other types of space that are necessary and currently available to implement the proposed program through Year 5.

Two laboratories, a microbiology laboratory and a general purpose analytical laboratory currently serve the Food Science program but there is no formal food processing space. Plans are currently in place for the renovation of the general purpose laboratory in 2015-2016. The program will also benefit from the Food biotechnology laboratory being established at the Center for Viticulture and Small Fruit Research. The College is also accelerating plans to establish some form of

processing at either the Viticulture or Quincy facilities or even both. Once these plans come to fruition they will support the growth and development of the Food Science degree.

D. Describe additional classroom, teaching laboratory, research laboratory, office, and other space needed to implement and/or maintain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Table 2 in Appendix A. Do not include costs for new construction because that information should be provided in response to X (E) below.

Additional classroom room space is not likely to be needed.

E. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Table 2 in Appendix A includes only Instruction and Research (I&R) costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs in particular would necessitate increased costs in non-I&R activities.

NA

F. Describe specialized equipment that is currently available to implement the proposed program through Year 5. Focus primarily on instructional and research requirements.

The food science laboratories include a new 900 sq. ft. state of the art level II microbiology laboratory equipped with a laminar flow hood, and all the equipment and supplies needed to analyze for pathogenic and nonpathogenic bacteria. The 3000 sq. ft. general food laboratory is equipped for standard chemical and instrumental analysis of foods. Its equipment includes a nitrogen analyzer, fat and fiber analyzers, HPLC, texture analyzer, spectrophotometers, Hunter Lab colorflex for color measurement. It is also equipped with meat slicer, meat grinder, sausage stuffer, and vacuum tumbler that allow for experimental procedures to be carried out using meat. Facilities also include a dedicated sensory panel facility attached to an experimental kitchen. However, like all areas there is a need for constant update.

G. Describe additional specialized equipment that will be needed to implement and/or sustain the proposed program through Year 5. Include projected costs of additional equipment in Table 2 in Appendix A.

Science is continuously changing and the current College commitment to laboratory upkeep may have to be increased depending upon these changes. However, outside of the processing facilities, which are being planned for the Mahan Drive and Quincy facilities, we expect new equipment to be provided via the annual College budget.

H. Describe any additional special categories of resources needed to implement the program through Year 5 (access to proprietary research facilities, specialized services, extended travel, etc.). Include projected costs of special resources in Table 2 in Appendix A.

NA

I. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5. Include the projected costs in Table 2 in Appendix A.

NA

J. Describe currently available sites for internship and practicum experiences, if appropriate to the program. Describe plans to seek additional sites in Years 1 through 5.

NA

APPENDIX A

Board of Governors New Degree Worksheets

APPENDIX A

TABLE 1-A (DRAFT)
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES
(Baccalaureate Degree Program)

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Upper-level students who are transferring from other majors within the university**	8	8	7	7	6	5	5	4	5	4
Students who initially entered the university as FTIC students and who are progressing from the lower to the upper level***	30	25	39	33	48	40	49	42	55	46
Florida College System transfers to the upper level***	2	2	3	3	4	4	5	5	9	9
Transfers to the upper level from other Florida colleges and universities***	0	0	0	0	0	0	1	1	2	2
Transfers from out of state colleges and universities***	0	0	0	0	1	1	1	1	1	1
Other (2nd Degree)***	0	0	0	0	2	2	2	2	3	3
Totals	40	35	49	43	61	52	63	55	75	65

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.
** If numbers appear in this category, they should go DOWN in later years.
*** Do not include individuals counted in any PRIOR CATEGORY in a given COLUMN.

APPENDIX A

TABLE 2
PROJECTED COSTS AND FUNDING SOURCES

Instruction & Research Costs (non-cumulative)	Year 1							Year 5					
	Funding Source							Funding Source					
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	Other New Recurring (E&G)	New Non-Recurring (E&G)	Contracts & Grants (C&G)	Auxiliary Funds	Subtotal E&G, Auxiliary, and C&G	Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)	Auxiliary Funds	Subtotal E&G, Auxiliary, and C&G
Faculty Salaries and Benefits	483,422	0	0	0	21,543	0	$504,965	497,925	0	0	43,086	0	$541,011
A & P Salaries and Benefits	0	0	0	0	0	0	$0	0	0	0	0	0	$0
USPS Salaries and Benefits	42,900	0	0	0	0	0	$42,900	42,900	0	0	0	0	$42,900
Other Personal Services	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Assistantships & Fellowships	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Library	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Expenses	10,000	0	0	0	0	0	$10,000	10,000	0	0	0	0	$10,000
Operating Capital Outlay	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Special Categories	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Total Costs	$536,322	$0	$0	$0	$21,543	$0	$557,865	$550,825	$0	$0	$43,086	$0	$593,911

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "other new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Faculty and Staff Summary

Total Positions	Year 1	Year 5
Faculty (person-years)	3.25	3.58
A & P (FTE)	0	0
USPS (FTE)	1	1

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	$536,322	$550,825
Annual Student FTE	35	65
E&G Cost per FTE	$15,323	$8,474

APPENDIX A

TABLE 3 (DRAFT)
ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS*

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
College of Agriculture and Food Sciences Dean's Office		493,422	
Totals		$493,422	

*** If not reallocating funds, please submit a zeroed Table 3**

APPENDIX A

TABLE 4 (DRAFT)
ANTICIPATED FACULTY PARTICIPATION

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	Neil James, Ph.D. Food Science	Professor	Tenured	Fall 2016	9	0.75	1.00	0.75	9	0.75	1.00	0.75
A	Mitwe Musingo, Ph.D. Food Science	Professor	Tenured	Fall 2016	9	0.75	1.00	0.75	9	0.75	1.00	0.75
B	Jenelle Robinson, Ph.D Nutrition	Asst. Prof	Tenure Earning	Fall 2016	9	0.75	1.00	0.75	9	0.75	1.00	0.75
B	Satyanarayan Dev, Ph.D Food Engineering	Asst. Prof	Tenure Earning	Fall 2016	9	0.75	0.10	0.08	9	0.75	0.10	0.08
B	Anthony Ananga Food Science	Asst. Prof	Tenure Earning	Fall 2016	9	0.75	1.00	0.75	9	0.75	1.00	0.75
D	Keawin Sarjeant, Ph.D. Meats and Food Safety	Asst. Prof	Non Tenure	Fall 2016	12	1.00	0.25	0.25	12	1.00	0.50	0.50
	Total Person-Years (PY)							3.33				3.58

Faculty Code		Source of Funding	PY Workload by Budget Classsification Year 1	Year 5
A	Existing faculty on a regular line	Current Education & General Revenue	1.50	1.50
B	New faculty to be hired on a vacant line	Current Education & General Revenue	1.50	1.58
C	New faculty to be hired on a new line	New Education & General Revenue	0.00	0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.25	0.50
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00	0.00

Overall Totals for Year 1 3.25 Year 5 3.58

APPENDIX B

Please include the signature of the Equal Opportunity Officer and the Library Director.

DocuSigned by:

Carrie [signature]

Signature of Equal Opportunity Officer — 4/25/2016 Date

DocuSigned by:

Faye Watkins

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Signature of Library Director — 4/25/2016 Date

This appendix was created to facilitate the collection of signatures in support of the proposal. Signatures in this section illustrate that the Equal Opportunity Officer has reviewed section II.E of the proposal and the Library Director has reviewed sections X.A and X.B.

Appendix C

Curriculum vitae (CV) for each existing faculty

Neil A. James
Florida A&M University, Food Science Program
305 South Perry-Paige, Tallahassee, Florida 32307
Email: Neil. James @famu.edu. Phone: (850) 561--2310

Education

Ph.D. (Food Science), University of Leeds, England, 1984
B.Sc. (Chemistry), University of Guyana, Guyana, 1979.

Employment Experience

Food Science Program Leader, 1998 – present
Professor, Florida A&M University, 2006 to present
Associate Professor, Florida A&M University, 1997 - 2006
Assistant Professor, Florida A&M University, 1992 - 1997
Research Associate, Florida A&M University and Visiting Food Chemist, USDA Meat Science Research Laboratory, Beltsville, MD, 1989 – 1992

University Courses Taught

FOS 2002 – Food and Man
FOS 3042 - Introduction to Food Science
FOS 3042L – Introduction to Food Science Laboratory
FOS 4311 – Food Chemistry
FOS 4321 – Food Analysis with laboratory
FOS 4942 – Food Safety Practicum
AGG 4420 Global Seminar on Human Sustainability
ANS 3614 – Meat Science
HUN 2401 – Human Nutrition;

Master of Science Students Supervised (9)

Newman, C, 2012, The effect of refrigerated storage on the physicochemical properties on selected Muscadine grapes

Telesford, Jacqueline, 2012, Evaluation of selected physical properties of a soy based 'ice cream' product

Gardner, E. Evaluating the Antibacterial Properties of Concentrated Muscadine Juice and Extracts of Muscadine Seed and Skin

Lihong Wang, 2003, The effect of Muscadine juice and dried pomace on lipid oxidation and color of beef and chevon patties during refrigerated storage,

Hao Wang, 1998, HPLC determination of niacinamide, riboflavin, and vitamin B6 in raw and cooked chevon from young goats.
Bing Lin, 1998, The effects of cuts and cooking methods on the total fat and cholesterol content in chevon from young goats.

Dereo Maycock, 1996, Optimizing the textural and physical properties of chevon patties.

Fangqiang Fan, 1996, The effect of age, cut and cooking method on the mineral concentration in chevon,

Dale King, 1994, Nutrient and textural analysis of chevon chops cooked using different levels of microwave power

Publications (refereed)

Musingo, M., James, N., and Wang. L. 2005. European Journal of Scientific Research Influence of Grape Maturity on pH, Color and Total Phenolics of Red Muscadine Wine from Grapes Grown at Florida A & M University Vineyard, volume 11, number 2, pp 206 - 217

Wang, L. and James, N. A. 2003. The Influence of Muscadine Juice on the Rate of Lipid Oxidation and pH changes in Beef Patties. Proceedings of the Association of Research Directors held in Atlanta, Georgia.

James, N. A. and Berry, B. W. 1997. Use of Chevon in the development of low fat meat products, J. Animal Science, 75: 571 – 577

James, N. Browdy, A., Musingo, M, and Lamikanra V, 1996. Effect of cooking and commination methods on moisture, fat, and sensory properties of chevon patties. Institute of Food Technology Annual Meeting Book of Abstracts, 50 – 2

James, N. A. and Berry, B.W. 1991 The present and future status of low-fat ground beef production in the United States ground beef production in the United States, Journal of Animal Science, 69, 178A

James, N. Kotula, A. and Lamikanra V 1991 The cholesterol of raw and cooked chevon from young Spanish goats. Journal of Animal Science, 69, 177A

James, N. A., Berry, B.W., Kotula, A.W. Lamikanra, V.T. and Ono, K. 1990 Physical separation and proximate analysis of raw and cooked cuts of chevon Proceedings of the International Goat Symposium, pp 147-149.

James, N. A. and Ryley, J 1986 The rapid determination of chemically reactive lysine in the presence of carbohydrates by a modified trinitrobenze acid procedure. Journal of the Science of Food and Agriculture. Vol. 37, 151-156

Other Selected Publications and Presentations

Sriharan, S., Stuohin, D, James, N, Francisco, S., 2012, Student Preparation for Global Learning through Case Studies and Videoconferencing, 19th Annual HBCU Faculty Development Network Conference, Orlando, Florida

James, N., 2006. Food safety and nutrition challenges to the global meat consumer. Invited presentation at the 2nd International Food and Nutrition Conference, held at Tuskegee University, October 8 -10.

James, N. (Text Compiler & Organizer), 2005 Food and Man (FOS 2002) 1st Edition, Thomson Wadsworth. ISBN 0-495-13683-2

Schneider, R., Michael, S., Smith-Moran, B., Borgeson, J., James, N., Farameli, N., Jordan, J., Julienne, P, Youmas, S. Miers, J., Ross, J. and Stray, S. 2005 A Catechism of Creation, an Episcopal understanding. Publication of the National Episcopal Church's Committee on Science Technology and Faith

James, N. 2005 Optimizing nutritional values in popular methods. Invited presentation at the annual, conference of the American Society for Horticultural Science held in Las Vegas.

Wang, L. and James, N.A. 2003 The influence of Muscadine Juice on the rate of lipid oxidation and pH changes in, patties. Presented to the Association of Research Directors Meeting held in Atlanta, GA.

James, N.A., Fan, F. and Maycock, D 1996 Optimizing Chevon use in product development Proceedings of the Southeast Regional Meat goat production symposium. Pp 61 – 64

James, N. Browdy, A., Lamikanra, V. and Musingo, M 1995 Sensory qualities of meal-ready-to-eat burgers Presentation to the 92nd annual meeting of the Southern Association of Agricultural Scientists Held in New Orleans, Louisiana.

Grants Received

2013 Creating A Public Private Consortium for Enhanced Preparation of Students for Careers in the Food Industry. P.I. USDA Capacity building Grant, ($147,000)

2006 To establish a model capstone internship in food safety", Co- P.I. USDA Capacity building Grant, ($199,118)

2003 The Utilization of Muscadine products to enhance the sensory physiochemical and safety qualities of meats. P.I. The USDA Agricultural Research Service and FAMU Science Center. ($191,000)

1997 Sensory evaluation of MRE products. P.I. Sub contract from University of Connecticut ($45,000)

1997 Quality assessment of Fat replacers in thermally processed meats. Co P.I. The U.S. Army Natick Research and Development Center. ($45,730)

1992 Compositional and Quality Characteristics of Chevon, USDA Capacity Building Grant, co-P.I. (276,808)

Professional Affiliations
Institute of Food Technologists - Professional Member
Florida Section of Institute of Food Technologists – Member
American Association of Meat Scientists – Member
Gamma Sigma Delta - Member

University Service
Chair, University Curriculum Committee – 2012 – present
Chair, University Sabbatical and Professional Development Leave Committee, 2012/13
Faculty Senate Library Committee, Member since 2002
University Curriculum Committee - 2002 – present
University Honors Program Advisory Committee, Member 2004 - 2009
Member, Faculty Senate - 1995 – 97, 1999 - 2001
Faculty Advisor, FAMU Chapter of MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences), 1993 – 1999
Faculty Advisor to Food Science Club, 2000 – present

Public Service
Chair, 2010 – 2012, Florida Food Safety and Food Security Advisory Council and member since 2002. Section 500.033 of the Florida Statues authorizes this council. The purpose of the council is to serve as a forum for presenting, investigating, and evaluating issues of current importance to the assurance of a safe and secure food supply. The Florida Commissioner of Agriculture and Consumer Services appoint members.

Lawton Chiles High School Advisory Council – Parent Member – 2004 – 2008

Math coach of the National Achievers Society (a society dedicated to high achieving African American K-12 students)

Member, National Committee on Science, Technology & Faith of the Episcopal Church, 2003 – 2005

Member, National Achievers Society Parents Alliance 2000 to 2008 & Treasurer 2005/06

MITWE N. MUSINGO, Ph. D.
Professor, Food Science Program
7502 Refuge Rd
Tallahassee, Florida 32312
Email: mitwe.musingo@famu.edu
Work Phone Number: (850) 561-2309

EDUCATION:

Ph.D. (1999), Food Science and Human Nutrition Department, University of Florida
M.S. in Agricultural Education (1988), Florida A & M University
B.S. in Biology (1984), Florida A & M University
License en Biologie (1977), Faculte des Sciences, Universite Nationale du Zaire

CERTIFICATION: Hazard Analysis Critical Control Point (HACCP) certified since August 1999

EXPERIENCE:

Professor (August 2010 to Present)

Associate Professor (August 2006 to July 2010)
Food Science Program, Florida A & M University, Tallahassee, Florida
Major duties consist of teaching several Food Science courses and Academic advisement

Assistant Professor (August 1999-2006)

Graduate Program Coordinator (July 2002 to September 2004)
Food Science Program, Florida A & M University, Tallahassee, Florida

Assistant Professor (August 1995-August 1999)
On leave of absence from FAMU to complete Ph.D. Program at the University of Florida in Gainesville.

Assistant Professor (October 1994-August 1995), Florida A & M University.
Designed materials for the recruitment of new students in food science. Helped with the implementation of the Mentoring Minority Students for the Food and Nutritional Sciences.

Research Associate (November 1992-October 1994), Florida A & M University
Designed the new curriculum for the new Food Science Unit and wrote the description of new courses submitted for Board of Regents' approval.

Research Assistant (December 91-November 1992)
Division of Agricultural Sciences, Duties included the development of new meal ready to eat (MRE) ethnic foods for use as military operational rations.

Research Assistant (September 1984 - August 1989)

Peanut Research Laboratory, Florida A & M University

Publications:

Musingo, M.N. and L. Wang 2009. Analysis of Eating Habits According to Socio-Demographic Characteristics of College Students. Pakistan Journal of Nutrition, 8(10): 1575-1580.

Mbele, A., Sheikh, M.B., and **M. Musingo,** 2008. Changes in Phenolics and Antioxidant Activity of Muscadine Grape Cultivars during Berry Development and Ripening. International Journal of Fruit Science, 8(4). 1-15.

Musingo, M.N. and L. Wang 2008. Effect of Stainless-Steel Vats and Glass Carboys on Muscadine Wine Dissolved Oxygen, Color, Total Phenols, pH and Titratable Acidity. American Journal of Enology and Viticulture, 59(3).

Musingo, M.N., James, N. and L. Wang, 2005**.** Influence of Grape Maturity on pH, Color and Total Phenolics of Red Muscadine Wine from Grapes Grown at Florida A&M University Vineyard. European Journal of Scientific Research, 11(2): 206-217.

Musingo, M.N. and L. Wang 2005. Influence of Maceration Methods on Total Phenolics, Color and Lees Characteristics during Fermentation of Red Wine Made From Frozen Muscadine Grapes (*Vitis Rotundifolia*). European Journal of Scientific Research, 6(4):5-15

Veal, T., **Musingo,** M.N**.,** and L. Wang, 2005. Extraction of oil from Muscadine Grapes (*Vitis Rotundifolia*) using various solvents. McNair Journal Fall 2005: 64-67.
Basha, M.S., **Musingo,** M. And V.S. Colova 2004. Compositional Differences in the Phenolic Compounds of Muscadine and Bunch Grape Wines. African Journal of Biotechnology 3(10): 523-528

Musingo, M.N., Sims, C.A., Bates, R.P., O'Keefe, S.F. and O. Lamikanra 2001. Changes in Ellagic Acid and Other Phenols in Muscadine Grape (*Vitis rotundifolia*) Juices and Wines during Storage. American Journal of Enology and Viticulture, 52(2): 109-114

Ralston, P., Lamikanra, V., Weatherspoon, L., and M. **Musingo** 1998. Mentoring Minority Students for the Food and Nutritional Sciences: A cooperative Program. Journal of Family and Consumer Sciences, 90 (2), 50-55.

Lamikanra, O., S.D. Kirby and M. **Musingo** 1992. Muscadine Grape polyphenoloxidase: Partial Purification by High Pressure Liquid Chromatography and Some Properties. Journal of Food Science, 57(3): 686-689 & 695.

Basha, S.M., M.N. **Musingo**, B. Mohanty, J.W. Dorner, and R.J. Cole: Factors Affecting Phytoalexin in Peanut Seed 1990. Journal of Plant Physiology, 136: 143-148.

Musingo, M.N. and S.M. Basha 1989. Effect of Drought and Temperature Stress on Peanut (*Arachis hypogaea L.)* Seed Composition. Journal of Plant Physiology, 143: 710-716.

Keawin C. Sarjeant, Ph.D.
1898 Sagebrook Drive
Tallahassee, Florida 32303
(850) 322-3285
Keawin.sarjeant@famu.edu

EDUCATION

University of Florida, Gainesville, FL; College of Agricultural and Life Sciences, Meat Science/Food Microbiology; PhD. May 2006. Dissertation Title: "Impact of Three Different Feeding Regimens on Performance Microbiology, Sensory, and Objective Characteristics of Florida Brangus Beef Cattle."

University of Florida, Gainesville, FL; College of Agricultural and Life Sciences, Meat Science/Food Microbiology; M.S., 2003. Master's Thesis: "The Effect of Irradiation on
The Growth of *Salmonella enterica* serovar Typhimurium and Psychrotrophic Bacteria in Raw
Chicken Breasts Stored at $4^{o}C \pm 1^{o}C$ for 14 Days"

Florida A&M University, Tallahassee, FL; B.S., Biology and Chemistry; June 1999.

PROFESSIONAL EXPERIENCE

2009- Present – Assistant Professor
Florida A&M University, College of Agriculture and Food Sciences (CAFS), Division of Agricultural Sciences Food Science and Animal Science Program and Cooperative Extension, Tallahassee, Fl.
Duties: Academic advising of undergraduate students in Food Science, Animal Science, and Veterinary Technology. Lecturing and conducting laboratory exercises in food microbiology and meat science courses. Food safety and animal herd health extension outreach that links teaching, research, and public service to for Florida's citizens. Coordinate annual Hazard Analysis and Critical Control Point (HACCP) Workshop for Meat and Poultry Processors. Extension outreach to small farmers, producers, and consumers. Coordinate annual Good Agricultural Practices (GAP Training) workshop for small and medium farmers.
Current research focus is on poultry products and the effects of different natural spices on shelf-life and pathogenic microorganisms.

2008-2009 – **Biological Scientist I**
Florida Department of Agriculture, Division of Food Safety, Tallahassee, FL.
Duties: Perform microbiological analyses on food products and water using both automated, molecular and cultural techniques; Sample preparation for microbiological analyses; perform monitoring and calibration of laboratory equipment; detailed record keeping, editing and creation of official reports.

2006-2009 – **Multimedia Engineer and Office Assistant**
Tabernacle Missionary Baptist Church, Tallahassee, FL.
Duties: Designing and executing weekly multimedia presentations for worship.

Responsible for operating NSI 24/48 Lighting Memory Console for stage lighting and Yamaha 01V96 Digital Audio Mixing board for live and recorded video presentation. Provide assistance in office processing activities and data entry.

1999-2006 - **Research and Teaching Assistant**,
University of Florida, Department of Animal Sciences, Gainesville, FL.
Duties: Lecturing and conducting laboratory exercises in undergraduate meat and poultry processing courses. Research responsibilities included conducting work on projects involving meat and poultry processing with major emphasis on (1) food safety and sanitation of meat and poultry products, (2) functional properties of food ingredients used in the manufacture of meat and poultry products, and (3) product development. Perform microbiological analyses on meat and poultry products. Perform trained and consumer sensory panels on different meat and poultry products. Prepared and processed several different types of meat and poultry products using meat ingredients as well as non-meat ingredients.

1999-2000 - **Office Operations Supervisor**
United States Census Bureau, Tallahassee, FL

Duties: Coordinating and supervising the activities of the office staff in the areas of personnel and payroll. Responsible for the daily data entry of office and field personnel information. Provided assistance in office processing activities to the assistant managers within the office.

1998-1998 - **Undergraduate Research Assistant**
Minority Research Summer Program, University of Florida, Gainesville, FL.
Duties: Assisted in research of Feline Immunodeficiency Virus and Cytokine production.

ACADEMIC ADVISEMENT/MENTORING EXPERIENCE

Graduate – Train and mentor graduate students in the areas of meat science, food safety, and product development. Also helped new students adjust to life as a graduate student.

Undergraduate – Academic advisement and mentoring for undergraduate students in Food Science, Animal Science and Veterinary Technology. Mentor undergraduates who conduct experiments in product development, general microbiology, food microbiology, meat and poultry processing, and food irradiation. Student mentor with the Research Experience for Undergraduates (REU) at the University of Florida beginning in 2003.

Middle School: Mentored and supervised one middle school student who conducted a *Salmonella* isolation project in the Food Science laboratory.

TEACHING EXPERIENCE

Florida A&M University, Tallahassee, FL; College of Engineering Sciences, Technology, and Agriculture, Division of Agriculture Sciences and Cooperative Extension

University of Florida, Gainesville, FL; College of Agricultural and Life Sciences, Meat Science/Food Microbiology.

Undergraduate:
ANS 4931 – Animal Science Seminar – a course on preparation and presentation of oral and written reports on past and present subjects in Animal Science or related areas.

ANS 3614 - Meats - Basic principles for the use of muscle as food; process technology; meat/poultry inspection regulations and labeling; quality control procedures and marketing aspects.

FOS 4244C - Food Microbiology Lecture/Lab – An introduction to microbiology as it relates to food. Focus includes common foodborne pathogens, as well as other bacteria, viruses, fungi, and parasites. This course also focuses on regulatory aspects and prevention of foodborne disease and microbial spoilage and applications for the basic and applied principles of Food Microbiology.

FOS 4942 – Food Safety Practicum - a capstone class in food safety designed to expose students to the actions of the government and the food industry in dealing with current and emerging issues in food safety. The students obtain information primarily through hands on experiences, laboratory exercises and lectures during visits to government agencies involved in food safety and food companies with active food programs.

VME 4117 Animal Sanitation and Disease - Various factors involved in animal sanitation and control of diseases. The diseases outlined in this course have significance in different areas because of their potential for affecting the health of animals and their related human health and environmental effects. Exposure of animals and humans to disease causing organisms and other health hazards can result in contamination of animal derived foods and products. Human exposure from consumption of contaminated plants and animal derived foods and products can be detrimental to human health and the environment.

ANS 4635L - **Meat Processing Lab** – Application of basic principles for the use of muscle as food; process technology; meat/poultry inspection regulations and labeling; quality control procedures and marketing aspects.

ANS 4635 - **Meat Processing Lecture** (teaching assistant). Basic principles for the use of muscle as food; process technology; meat/poultry inspection regulations and labeling; quality control procedures and marketing aspects.

Graduate:
FOS 5226 Advanced Food Microbiology – provides an advanced analysis of microbiology as it relates to food. The relationship between food and the microorganisms that inhabit that food is examined in detail. This includes, the science

and processing methods that define and control these relationships.

ANS 6288- Experimental Techniques and Analytical Procedures in Meat Research (teaching assistant). Experimental design, analytical procedures; techniques; carcass measurements and analyses as related to livestock production and meats studies.

PERTINENT PUBLICATIONS

Williams, S.K., N. Djeri, K. Sarjeant, 2010. Food Safety Considerations for Meat Goat Processing from Live Animal to Carcass. Proceedings of the National Goat Conference. 1:1-4.
Sarjeant, K. 2006. The Impact of Three Different Feeding Regimens on Performance, Microbiology, Sensory, and Objective Characteristics of Florida Brangus Beef Cattle. University of Florida. Doctoral Dissertation.
Sarjeant, K., S.K. Williams, A. Hinton. 2005. The survival of Salmonella typhimurium on commercial chicken breast meat treated with high-energy electron beams and stored at 4C for 14 days. Poultry Science. 84:955-958**.**
Sarjeant, K. 2003. The Effect of Irradiation on the Growth of Salmonella enterica serovar Typhimurium and Psychrotrophic Bacteria in Raw Chicken Breasts Stored at $4^{o}C \pm 1^{o}C$ for 14 Days. University of Florida. Master's Thesis.

CONFERENCE PRESENTATIONS

2009. "Safe Food Handling and HACCP". Florida Small Farms Outreach Polycom Conference. Tallahassee, FL.

2009. "Biosecurity and Food Safety on the Farm". Florida Small Farms and Alternative Enterprises Conference. Kissimmee, FL.

2003. "The Survival of *Salmonella enterica* Serovar Typhimurium and Psychrotrophic Bacteria on Commercial Chicken Breast Meat Treated with High Energy Electron Beam Irradiation and Stored at $4^{o}C$ for 14 days". Poultry Science Association 92^{nd} Annual Meeting, Madison, WI.

PROFESSIONAL DEVELOPMENT ACTIVITIES

2014 - USDA NIFA Peer Reviewer
2012 – Present - Peer Reviewer Letters in Applied Microbiology
2010 – Present - Peer Reviewer for Journal of Applied Microbiology
2010 – Present - Peer Reviewer for Journal of Poultry Science
2011 - USDA NIFA Ad Hoc Peer Reviewer
2009 - Florida Small Farms Outreach Conference
2009 - Florida Small Farms and Alternative Enterprises Conference
2006 - Compact for Faculty Diversity- 13^{th} Annual Institute on Teaching and Mentoring
2005 - Compact for Faculty Diversity- 12^{th} Annual Institute on Teaching and Mentoring

Curriculum Vitae

Dr. Satyanarayan R.S. Dev

Address

Primary Affiliation Address
Assistant Professor,
Department of Food Science and Nutrition,
College of Applied Sciences,
A'Sharqiyah University,
P.O. Box 42, Postal Code 400,
Ibra, Sultanate of Oman

E-Mail: satyanarayan.dev@gmail.com
Phone: +968-255 60 700 Ext 257
Fax: +968-255 60 702
Mobile: +968-989 40 422

Secondary Affiliation Address
Adjunct Professor,
Department of Bioresource Engineering,
McGill University, 21111, Lakeshore Road,
Ste Anne de Bellevue, QC, H9X 3V9, Canada.

Age: 32 **Nationality:** Canadian

Languages: English, French, Russian, Hindi, Tamil

Areas of Discipline and Expertise

Food Process Engineering, Food Safety and Security, Food Microbiology, Nutraceuticals and functional Foods, Mathematical Modelling, Simulation, Expert Systems, Value addition.

Academic Background and Training

Degree/Training	Organization	Thesis / Project Title	Date Completed
NSERC* Post-Doctoral Fellow	Ecole Polytechnique de Montreal, Canada	Optimization and scale up of electrotechnology for in-shell egg pasteurization	09/2012
FQRNT+ Post-Doctoral Fellow	Ecole Polytechnique de Montreal, Canada	Optimization and scale up of electrotechnology for in-shell egg pasteurization	12/2011
Post-Doctoral Fellow	Pennsylvania State University, USA	Develop a novel CIP technique using Electrolysed Oxidizing water for milking systems	08/2011
Doctor of Philosophy (Bioresource Engineering)	McGill University, Canada	Microwave Pasteurization of Shell Eggs – A Comprehensive Study	08/2010
Master of Science (Bioresource Engineering)	McGill University, Canada	Microwave Pasteurization of Shell Eggs – A Prelude	05/2007
Bachelor of Technology (Food Process Engineering)	Tamil Nadu Agricultural University, India	HACCP Analysis of Different Types of Food Industries	05/2004

***** Natural Science and Engineering Research Council, Federal Government of Canada.
+Fonds Québécois de la Recherche sur la Nature et les Technologies, Government of Québec, Canada.

Distinctions

First Rank Holder in 2010-2011 Le Fonds québécois de la recherche sur la nature et les technologies – Postdoctoral Scholarships Competition

First Rank Holder in 2007-2008 Le Fonds québécois de la recherche sur la nature et les technologies - Doctoral Scholarships Competition

Best Poster Award, ICEF 10 - 10th International Congress of Engineering and food, April 20-24, 2008, Vina del Mar, Chile

Best Poster Award, IFET 2012 - International Congress of Food Engineering and Technology, March 26-28, 2012; Bangkok, Thailand

Outstanding Oral Presentation, Northeast Agriculture and Biological Engineers Conference, United States, Jul 29 – Aug 1, 2007, Wooster, Ohio, USA.

Outstanding Oral Presentation, Northeast Agriculture and Biological Engineers Conference, United States, Jul 30 – Aug 2, 2006, Montreal, Quebec, Canada.

Scholarships and Research Awards Won

Postdoctoral Fellowship, Natural Science and Engineering Research Council, Canada, Effective: 01/2012, Ending: 01/2014, $80,000

Postdoctoral Research Scholarship, Fonds Québécois de la Recherche sur la Nature et les Technologies, Canada, Effective: 09/2011, Ending: 08/2013, $60,000

Industrial Research & Development Fellowship, Natural Science and Engineering Research Council, Canada, Effective: 05/2011, Ending: 05/2013, $80,000

Visiting Fellowship in Government Laboratories, Natural Science and Engineering Research Council, Canada, Effective: 05/2011, Ending: 05/2013, $95,000

Doctoral Research scholarships, Le Fonds Québécois de la Recherche sur la Nature et les Technologies, Canada, Effective: 05/2008, Ending: 05/2010, $40,000

Graduate Research Award, McGill University, Canada, Effective: 01/2008, Ending: 09/2010, $41,838

Recruitment Excellence Fellowship, McGill University, Canada, Effective: 09/2007, Ending: 12/2007, $5,000

Research Grants

Principal Investigator - “Microwave Assisted Solar Vapour Absorption Systems for Sustainable Refrigeration and Air Conditioning in Oman” - Effective: 06/2014, Ending: 06/2017, $275,000

Certifications

1. Diploma in Information Systems Management from Microsoft Corporation
2. Graduate Teaching Workshop certification from McGill University
3. HACCP Certification for Processors and Manufacturers
4. Basic and Advanced Modeling Features Certification from COMSOL Multiphysics Inc
5. MATLAB certification from MathWorks Inc.
6. Oracle for Developers certification from Oracle Corporation.

Academic Work Experience:

Position	Organization	**Job Description**	Start Date-End Date (MM/YYYY)
Assistant Professor (Food Science)	**A'Sharqiyah University, Oman**	Instruct, teach and grade Advanced Food Science courses for undergraduate students, establish laboratories for 'Food Engineering', 'Food Packaging' and 'Food Physics' as well as develop a 'Food Entrepreneurship' program	**09/2012 - Present**
Adjunct Professor (Bioresource Engineering)	**McGill University, Canada**	Collaborate in research activities, Co-Supervise graduate students, Give guest lectures and assist/participate in departmental academic activities as needed	**11/2012 - Present**
Acting Dean (College of Applied Sciences)	**A'Sharqiyah University, Oman**	In-charge of the deanship of the college of applied sciences, administer and coordinate academic activities, establish departments and hierarchical structure for college committees.	**02/2013 – 05/2013**
NSERC Post-Doctoral Fellow	**Ecole Polytechnique de Montreal, Canada**	Optimization and scale up of electrotechnology for in-shell egg pasteurization	**09/2011 – 09/2012**
FQRNT Post-Doctoral Fellow	**Ecole Polytechnique de Montreal, Canada**	Optimization and scale up of electrotechnology for in-shell egg pasteurization	**09/2011 – 12/2011**
Sessional Lecturer	**McGill University, Canada**	Instruct, teach and grade 'Geomatics' for undergraduate engineering students	**09/2011 – 12/2011**
Post-Doctoral Fellow	**Pennsylvania State University, USA**	Develop a novel CIP technique using electrolysed oxidizing water for milking systems	**12/2010 – 08/2011**
Sessional Lecturer	**McGill University, Canada**	Instruct, teach and grade 'Fluid Mechanics' for undergraduate engineering students	**09/2010 – 12/2010**
Database Analyst	**McGill University, Canada**	Develop a database program for immuno-nutritional studies	**04/2005 –12/2010**
Graduate Student Assistant	**McGill University, Canada**	Design, develop and build a laboratory scale microwave pasteurizer for in-shell eggs	**01/2008 – 09/2010**
Graduate Teaching Assistant	**McGill University, Canada**	Grade assignments and conduct lab sessions for 'Postharvest Drying' – graduate level course	**01/2010 – 05/2010**

Graduate Teaching Assistant	**McGill University, Canada**	Teach MATLAB applications and grade assignments for 4 different mathematics courses	**08/2005 – 12/2008**
Research Assistant	**McGill University, Canada**	Preparing diet cards and packing measured quantities of food for clinical trials	**04/2005 – 12/2005**
Visiting Lecturer	**Central Institutes of Technology, India**	Instruct, teach, grade 'computer science' for students in 3-year engineering diploma program	**05/2004 – 08/2004**

Other Work Experience:

I have also worked as a systems administrator, database analyst, help desk consultant and library assistant at McGill University for nearly 5 years. Moreover during my undergraduate studies, I had worked as a part time chief technical assistant at Gayatri Associates, Coimbatore, India, wherein I had assembled and serviced computers for 4 years.

Leadership Activities:

Participation in Committees and Professional Societies

1. Chair, College of Applied Sciences (CAS) library committee, April 2013 – till date
2. Member and representative for CAS in ASU's University Library Committee, September 2013 – till date
3. Member and representative for CAS in A' Sharqiyah University's (ASU) University Council, September 2012 – till date
4. Member and representative for CAS in ASU's University Research Council, September 2012 – March 2013
5. Member, ASU's University committee for textbooks and instructional materials, October 2012 – March 2013
6. Member and representative for Department of Food Science and Nutrition for the CAS college council, September 2012 – till date
7. Member of CAS Research Committee, January 2013 – till date
8. Member of the Canadian Society of Bio-Engineering (CSBE), Since June 2006 – till date.
9. Member of the American Society of Agricultural and Biological Engineers (ASABE), June 2006 – till date.
10. Member of ASABE Standards Committee on Physical Properties of Agricultural and Biological Products, since June 2007 – till date.
11. Executive Member, Postdoctoral Society of Penn State University, Since March 2011-September 2011.
12. Elected delegate, Association of Graduate Students Employed (AGSEM) at McGill University, Canada, Effective: 2007-2010.
13. Elected Member, AGSEM Constitutional Committee 2010-2011.
14. Elected Councillor, Post Graduate Student Society (PGSS) at McGill University, Canada, Effective: 2006-2010.

15. Elected Representative for PGSS, Council for Graduate and Postdoctoral Studies at McGill University, Canada, Effective: 2007- 2009.
16. Life Member, Foundation for the Study of Cycles (FSC), Since June 2006

Participation as External Reviewer for Peer Reviewed Journals and Conferences

1. **Associate Editor – Frontiers in Nutrition**
2. **Member of Editorial Board – Journal of Food Research and Technology**
3. Journal of Food Engineering - 2 articles
4. Progress in Electromagnetics Research - 4 articles
5. International Journal of Numerical Modelling – 1 article
6. Journal of Food Protection – 1 article
7. Journal of Wood Chemistry and Technology – 1 article
8. Heat Transfer, Fluid Mechanics and Thermodynamics Conference, 2011 – 2 articles
9. International Journal of Food Properties – 1 article
10. Food Control – 1 article

Participation in Teaching and Training Activities

1. Instructor for the course “Food Sanitation” in the department of Food Science and Nutrition, College of Applied Sciences, A’Sharqiyah University for a class of 74 students Since Fall 2013.
2. Instructor for the courses “Biology” and “Introduction to Food Science” in the department of Food Science and Nutrition, College of Applied Sciences, A’Sharqiyah University for a class of 90 students each during both Fall 2012 and Spring 2013 terms.
3. Sessional Lecturer for the courses "Fluid Mechanics" and “Geomatics” in Department of Bioresource Engineering at McGill University, for a class of 40 students during the terms of Fall 2010 and Fall 2011 respectively.
4. Teaching Assistant for the undergraduate mathematics course "Engineering mathematics", "Intermediate calculus", "Differential equations", "Microcomputer Applications" from 2005 to 2008 for class sizes in the range of 35 - 96 students every year at McGill University.
5. Teaching Assistant for the graduate level course "Postharvest Drying" for the term Winter 2010 for a class of 36 students at McGill University.

Participation in Scientific Outreach and/or Knowledge Translation Activities

1. **Judging:**
   a) Undergraduate paper competition, Graduate oral presentation and Graduate poster competition at the NABEC conference, July 2011 and June 2013;
   b) Post-doctoral research exhibition at Pennsylvania State University. April 2011;
   c) Graduate Student Poster competition organised by the Gamma Sigma Delta Association at the Pennsylvania State University. March 2011
   d) McGill undergraduate representation for Quebec Inter-university engineering competition” 2009.
2. **Session Moderator:** “Section VI-P-02: Food Properties (I)” - International Commission of Agricultural and Biosystems Engineering (CIGR), XVIIth World Congress in Québec City, Canada, June 2010 and Sessions III and V at the NABEC conference, June 2013.

3. **Conferences Organization and Volunteering**
    a. **Webmaster** for **NABEC (**a division of ASABE) from 2011 till date
    b. **Vice Chair** (Programs) **for NABEC** 2012-2013
    c. **Volunteer** for technical support and equipment organization for Inter-American Drying Conference (IADC) 2005, Northeast Agriculture and Biological Engineers Conference (NABEC) 2006 and McGill Conference on Global Food Security, 2009.
4. **Invited Guest Lectures**
    a. "Microwave Pasteurization for advanced Food Safety" Sultan Qaboos University, Muscat, Sultanate of Oman. November 2013.
    b. "Bio-Processing for Food, Fibre and Fuel" in the Department of Mechanical Engineering at the Indian Institute of Science, Bangalore, India. April 2012.
    c. For the courses "Elements of food engineering" and "Advanced food engineering" at the Department of Bioresource Engineering, McGill University, October 2008.
5. **Active volunteering** in Canadian International Development Agency funded programs at McGill University to facilitate visits and scholarly activities of international scientists and visitors from January 2005 to December 2007.

I hereby declare that the above details are correct to the best of my knowledge and belief.

(Satyanarayan R.S. Dev)

LIST OF PUBLICATIONS

Peer Reviewed Journal Publications

1. **S.R.S. Dev**, A. Demirci, R.E. Graves and V.M. Puri (2013). Optimization and modeling of an electrolyzed oxidizing water based clean-in-place technique for farm milking systems using a pilot- scale milking system. **Journal of Food Engineering.** Accepted–In Press.
2. Wang, R., **S. R. S. Dev,** G. S. V. Raghavan and Y. Gariepy (2013). Improving Mulberry Shelf-Life Using Peakfresh Package In Cold Environment. **Journal of Food Research and Technology.** 1: 2, 73-79.
3. Dutta, B., **S.R.S. Dev**, R. Gupta, S. M. Manoj, G. Sulebele and G.S.V. Raghavan (2013). Biochemical modification of buffalo milk and its physiological and sensory quality assessment. **Journal of Agricultural Science and Technology**. Accepted – In Press.
4. Dutta, B., **S.R.S. Dev** and G.S.V. Raghavan (2013). Finite Element Modeling of Selective Heating in Microwave Pyrolysis of Lignocellulosic Biomass - **Progress In Electromagnetics Research B**, 56, 1-24.
5. Wang, X., **S.R.S. Dev**, A. Demirci, R.E. Graves and V.M. Puri (2013). Electrolyzed Oxidizing Water for Cleaning-In-Place of Milking Systems on Dairy Farms – Performance Evaluation and Assessment. **Applied Engineering in Agriculture**. Vol. 29(5): 717-726. DOI 10.13031/aea.29.10099
6. Manickavasagan, A., I.M. Al-Marhubi and **S.R.S. Dev** (2013) Rheological properties of rice−blackgram batter while replacing white rice with brown rice. **Food Science and Technology International,** published online 10 June 2013. DOI: 10.1177/1082013213483612.
7. Kannan. S, **S. R. S. Dev,** Y. Gariepy and G. S. V. Raghavan (2013) Effect of radiofrequency heating on the dielectric and physical properties of eggs. **Progress In Electromagnetics Research B**, Vol. 51, 201-220.
8. **Dev, S.R.S.,** S. Kannan, Y. Gariepy, and G.S.V. Raghavan (2012). Optimization of Radiofrequency Heating of in-Shell Eggs Through Finite Element Modeling and Experimental Trials. **Progress In Electromagnetics Research** B, Vol. 45, 203-222.
9. **Dev, S.R.S**. and G.S.V. Raghavan (2012). Advancements in Drying Techniques for Food, Fibre and Fuel. **Drying Technology**, 30: 11-12, 1147-1159
10. Dutta, B., G.S.V Raghavan, **S.R.S. Dev,** P. Liplap, R. Murugesan, K. Anakella and T. Kaushal (2012). A Comparative Study on the Effects of Microwave and High Electric Field Pretreatments on Drying Kinetics and Quality of Mushrooms. **Drying Technology**, 30: 8, 891-897.

11. **Dev, S.R.S.**, V. Orsat, G.S.V. Raghavan and Y. Gariépy (2012). Finite Element Modeling for Optimization of Microwave Heating of In-Shell Eggs and Experimental Validation. **International Journal of Numerical Modeling**: Electronic Networks, Devices and Fields; 25:3 275–287. DOI: 10.1002/jnm.831
12. **Dev, S.R.S.**, K.C. Cheng, and Ali Demirci (2011). Electrolyzed Oxidizing Water Technology. **Resource (ASABE).** Special Issue. Sep/Oct 2011. 12-13.
13. **Dev, S.R.S**., P. Geetha, V. Orsat, Y. Gariépy and G.S.V. Raghavan (2011). Retention of Bioactive Molecules in *Moringa oleifera* by Microwave Assisted Drying and Analysis of other Quality Attributes. **Drying Technology**. 29:12, 1452-1458.
14. Corrêa, J.L.G., **S.R.S. Dev**, Y. Gariépy, and G.S.V. Raghavan (2011). Response Surface Modeling of Drying of Pineapple by Microwave-Vacuum with Osmotic Pretreatment. **Drying Technology**. Volume 29, Issue 13, 1556-1561.
15. Ngadi, M., **S.R.S. Dev**, G.S.V. Raghavan and S. Kazemi (2011). Dielectric Properties of Pork Muscle. **International Journal of Food Properties**. Accepted. (Jan 2011) - In press. DOI:10.1080/10942912.2010.528112
16. **Dev, S.R.S.**, Y. Gariépy, V. Orsat and G.S.V. Raghavan (2010). FDTD Modeling and Simulation of Microwave Heating of In-Shell Eggs. **Progress in Electromagnetics Research M.,** Vol. 13, 229-243, 2010
17. **Dev, S.R.S.,** Orsat, V., Gariépy, Y., Raghavan, G.S.V. and Ruiz-Feria, C. (2010). Selected Post-Heating Properties of Microwave or Hot Water Heated Egg White for In-Shell Pasteurization. **International Journal of Food Properties**, 13:4, 778 - 788,
18. **Dev, S.R.S.,** Y. Gariépy, and G.S.V. Raghavan (2009). Measurement of Dielectric Properties and Finite Element Simulation of Microwave Pretreatment for Convective Drying of Grapes. **PIERS Online**, Vol. 5, No. 7, 690-695.
19. Lu, J., **S.R.S. Dev**, G.S.V. Raghavan, C.Vigneault (2009). Simulation of a forced air-twin-chamber for measuring effect of heat treatment uniformity. **Journal of Food Engineering**; 95 (4), pp. 636-647
20. **Dev, S.R.S.**, G.S.V. Raghavan and Y. Gariépy (2008). Dielectric properties of egg components and microwave heating for in-shell pasteurization of eggs. **Journal of Food Engineering**; 86, 207–214.
21. **Dev, S.R.S.**, T. Padmini, A. Adedeji, Y. Gariépy, and G.S.V. Raghavan. (2008). A Comparative Study on the Effect of Chemical, Microwave, and Pulsed Electric Pretreatments on Convective Drying and Quality of Raisins. **Drying Technology**, 26:10, 1238 — 1243.

Peer Reviewed Conference Articles (Indexed by ISI and Thomson Reuters)

1. **Dev, S.R.S.** and G.S.V. Raghavan (2012). Thermodynamics of microbial destruction during drying. Proceedings of the 18th International Drying Symposium (IDS 2012) 11-15 November 2012, Xiamen, China.
2. **Dev, S.R.S.,** B. Srinivasan, G.S.V. Raghavan and Yvan Gariépy. (2012) Design Optimization of a Slotted Waveguide Applicator for Microwave Pasteurization of Shell Eggs. Advanced Electromagnetics Symposium, AES 2012, April 16-19, 2012, Paris, France.
3. **Dev, S.R.S.,** Y. Gariépy, V. Orsat And V.G.S. Raghavan (2012). Quality Assessment of Microwave Pasteurized In-Shell Eggs. International Congress of Food Engineering and Technology (IFET2012) March 26-28, 2012; Bangkok, Thailand.
4. **Dev, S.R.S.,** N. Abdel-nour, V.G.S. Raghavan and M. Ngadi (2012). Hyperspectral Imaging For Assessment Of In-Shell Pasteurized Egg Quality. International Congress of Food Engineering and Technology (IFET2012) March 26-28, 2012; Bangkok, Thailand.
5. Dutta, B., G.S.V Raghavan, **S.R.S. Dev** et al., (2011). Effect of Novel Pretreatments on the Drying Kinetics and Quality of Mushrooms. 7th Asia- Pacific Drying Conference, Tianjin, China, September 18-20, 2011.
6. Dutta, B., **S.R.S. Dev**, Y. Gariépy and G.S.V. Raghavan (2011). Finite Element Modelling and Experimental Validation of Rapid Pyrolysis of Lignocellulosic Biomass. International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Mauritius, July 11-13, 2011.
7. **Dev S.R.S** and G.S.V. Raghavan (2010) Contemporary Food Safety Issues- A Case Study with Microwave Pasteurization of In-Shell eggs. Presented at the Indian Institute of Crop Processing Technology – International Conference on Food Technology, Thanjavur, India. 30-31st October 2010.
8. Corrêa, J.L.G., **S.R.S. Dev**, Y. Gariépy, and G.S.V. Raghavan (2010). Drying of Pineapple by Microwave-Vacuum with Osmotic Pretreatment. 17th International Drying Symposium (IDS 2010), Magdeburg, Germany, 3-6 October 2010
9. **Dev, S.R.S**, Y. Gariépy, V. Orsat and G.S.V. Raghavan (2010). Modeling of Heat and Mass Transfer for Texture Improvement in Microwave Boiled Lentils. Presented at the

7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2010), Antalya, Turkey, July 19-21, 2010

10. Dutta, B., **S.R.S. Dev**, Y. Gariépy and G.S.V. Raghavan (2010). Finite Element Modelling of Microwave Pyrolysis of Biomass. Presented at the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2010), Antalya, Turkey, July 19-21, 2010
11. **Dev, S.R.S**, V. Orsat, Y. Gariépy and G.S.V. Raghavan (2010). Quality Assessment of Microwave Pasteurized In-Shell Eggs. Presented at the XVIIth World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR) Québec City, Canada, June 13-17, 2010
12. Hussain, A., **S.R.S. Dev**, Y. Gariépy and G.S.V. Raghavan (2010). Microwave-assisted separation of eggshell and membrane. Presented at the XVIIth World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR) Québec City, Canada, June 13-17, 2010.
13. Geetha, P., **S.R.S. Dev**, V. Orsat, Y. Gariépy and G.S.V. Raghavan (2009). Effect of Microwave Assisted Drying on the Bioactive Molecules and Other Quality Attributes of *Moringa oleifera*. Presented at the 6th Asia-Pacific Drying Conference (ADC09), Bangkok, Thailand, October 19-21, 2009.
14. **Dev, S.R.S.,** Y. Gariépy, V. Orsat, and G.S.V. Raghavan. (2008). Finite Element Modelling and Simulation of the Microwave Heating of In-Shell Eggs. ICEF10 - International Congress of Engineering and Food. Viña del Mar, Chile. 20-24 April 2008.

Submitted for Publication

1. **Dev, S.R.S.**, D. Lyew, V. Orsat, and G.S.V. Raghavan (2012). Validation of Microwave Pasteurization of Eggs using Non-Pathogenic Escherichia coli K12. Food Microbiology. Submitted for publication.
2. **Dev, S.R.S**, G.S.V. Raghavan, Y. Gariépy and V. Orsat, (2012). Nutrient retention and reduction of anti-nutritional factors in red lentils - A comparative study of different thermal processing techniques. Food Chemistry. Submitted for Publication.
3. Dai, J., **S.R.S. Dev** and G.S.V. Raghavan (2012). FDTD Simulation of Power Distribution in Microwave-Chemical Reactor/Extractor. International Journal of Chemical Reactor Engineering. Submitted for publication.

Non-Peer Reviewed Publications

1. Wang, X., **S.R.S. Dev**, A. Demirci, R.E. Graves and V.M. Puri (2013). Evaluation of Electrolyzed Oxidizing Water for Cleaning-In-Place of On-Farm Milking

Systems. Presented at the 2013 ASABE Annual International Meeting, Kansas City, Missouri, July 21 - 24, 2013. doi: 10.13031/aim.20131594214.

2. **Dev, S.R.S.,** A. Demirci, R.E. Graves and V.M. Puri (2013). Mathematical Modeling and Optimization of Clean-In-Place by Using Electrolyzed Oxidizing Water for a Pilot-Scale Milking System. Presented at the 2013 ASABE Annual International Meeting, Kansas City, Missouri, July 21 - 24, 2013. doi: 10.13031/aim. 20131592861.
3. **Dev, S.R.S.,** A. Demirci, V.M. Puri and R.E. Graves (2013). Optimization of Clean-In-Place (CIP) Process for Cleaning Pipelines in a Farm Milking System Using Finite Element Modeling and Simulation of a Turbulent Multiphase Flow System. Presented at the 2013 ASABE Annual International Meeting, Kansas City, Missouri, July 21 - 24, 2013. doi: 10.13031/aim. 20131592893.
4. **Dev, S.R.S.,** Y. Gariépy, B. Srinivasan and G.S.V. Raghavan (2012). Design of a Dielectric Probe Prototype for Real-Time Quality Assessment of Milk. Presented at the 2012 ASABE Annual International Meeting, Dallas, TX, July 29- August 1, 2012.
5. Dutta.B., **Dev, S.R.S.** and G.S.V. Raghavan (2012). Process Optimization of Microwave Pyrolysis of Lignocellulosic Biomass for Enhanced Biochar Production. Presented at the 2012 ASABE Annual International Meeting, Dallas, TX, July 29- August 1, 2012.
6. Raghavan, G.S.V, V. Sosle, **S.R.S. Dev**, V. Orsat and Y. Gariépy (2012). Canada-India Partnership for Consolidation of Food Security. 46th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and International Symposium on Grain Storage, Pantnagar, Uttarakhand, India, February 27-29, 2012.
7. Raghavan, G.S.V., and **S.R.S. Dev**. (2012). Novel postharvest techniques for enhancing storage life of food and feed grains. Presented at the 46th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and International Symposium on Grain Storage, Pantnagar, Uttarakhand, India, February 27-29, 2012.
8. Raghavan, G.S.V and **S.R.S. Dev** (2011). Food Processing Scenario in Canada. International Workshop on "Recent Trends in Food Processing-The Global Scenario. TANUVAS, Chennai, India, December 8 - 9, 2011.
9. **Dev**, **S.R.S.,** S. Kannan, Y. Gariépy, V. Orsat, G.S.V. Raghavan (2011). Simulation, Experimental Validation and Process Optimization of Radio Frequency Heating for Pasteurization of In-Shell Eggs. Presented at the 2011 ASABE Annual International Meeting, Louisville, KY, August 7-10, 2011.
10. Dutta, B., **S.R.S. Dev**, G.S.V. Raghavan, R. Gupta, S. M. Manoj and G. Sulebele (2010). Physiological and Sensory Quality of Chenna (Milk Protein Coagulate) made from

Biochemically modified Buffalo Milk. Presented at the 2010 ASABE Annual International Meeting, Pittsburgh, PA, June 20 - 23, 2010.

11. **Dev, S.R.S**, Y. Gariépy, G.S.V. Raghavan, V. Orsat, S. Prakash (2010). Effect of Thermal Processes on the Anti-Nutritional Factors of Red Lentils. Presented at the 2010 ASABE Annual International Meeting, Pittsburgh, PA, June 20 - 23, 2010
12. **Dev, S.R.S**, V. Orsat, Y. Gariépy and G.S.V. Raghavan (2009).Microbial Validation of Microwave pasteurization of eggs. Presented at the 2009 ASABE Annual International Meeting, Reno, NV, June 21 - 24, 2009
13. **Dev, S.R.S.**, V. Orsat, Y. Gariépy and G.S.V. Raghavan (2008). Optimization of Microwave Heating of In-Shell Eggs through Modeling and Experimental Trials. Presented at the 2008 ASABE Annual International Meeting, Providence, June 29–July 2, 2008.
14. **Dev, S.R.S**, V. Orsat, Y. Gariépy, G.S.V. Raghavan and C. Ruiz-Feria (2007). Physical Properties of Egg White after In-Shell Pasteurization by using Microwave or by Immersion in Hot Water. Presented at the 2007 ASABE Annual International Meeting, Minneapolis, MN, June 17-20, 2007.
15. **Dev, S.R.S**, T. Padmini, A. Adedeji, Y. Gariépy and G.S.V. Raghavan (2007) Effects of Chemical, Microwave and Pulsed Electric Pre-treatments on Convective Drying of Grapes. Presented at the 2007 ASABE Annual International Meeting, Minneapolis, MN, June 17-20, 2007.

Other Conference Presentations

1. Thumula, P., **S.R.S. Dev,** Y. Gariepy and G. S. V. Raghavan (2013). Respiration and Quality Changes in Chitosan – Lysozyme coated Tomatoes. Presented at the 2013 NABEC Conference, Altoona, PA, USA, June 16-19, 2013.
2. Wang, X., **S.R.S. Dev,** A. Demirci, R. E. Graves, and V. M. Puri (2013). Evaluation of Electrolyzed Oxidizing Water for Cleaning-In-Place of On-Farm Milking Systems. Presented at the 2013 NABEC Conference, Altoona, PA, USA, June 16-19, 2013.
3. **Dev, S.R.S**. (2012) Food Safety: Past, Present and Future. Presented at the 3rd Oman International Food Safety Conference, Muscat, Oman, November 6-8, 2012.
4. **Dev, S.R.S.,** G. Clark. M. Lefsrud, P. Adewale and J. Diaz Martinez (2012). Finite element modelling and simulation of a Natural Ventilation Greenhouse. Presented at the 2012 NABEC Conference, Orillia, ON, Canada, July 16-18, 2012.
5. **Dev, S.R.S.,** V.M. Puri, A. Demirci, and R.E. Graves (2012). Computational Fluid Dynamics Simulation of a Turbulent Multiphase Flow System for Optimization of Clean-

In-Place (CIP) Technique for Pipelines Using Farm Milking System as a model. Presented at the 2012 NABEC Conference, Orillia, ON, Canada, July 16-18, 2012.

6. Dutta. B, **S.R.S Dev** and G.S.V. Raghavan (2012). A Comprehensive Life Cycle Analysis for Environmental Assessment of Biochar Systems. Presented at the 2012 NABEC Conference, Orillia, ON, Canada, July 16-18, 2012.
7. Wang, X., **S.R.S. Dev**, A. Demirci, R.E. Graves and V.M. Puri (2012). Electrolyzed Oxidizing Water for Cleaning-In-Place of Milking Systems on Dairy Farms – Performance Evaluation and Assessment. Presented at the 2012 NABEC Conference, Orillia, ON, Canada, July 16-18, 2012.
8. **Dev, S.R.S.,** B. Srinivasan, G.S.V. Raghavan and Yvan Gariépy. (2012). Mathematical Three-Step Design Optimization of a Slotted Waveguide Applicator for Microwave Pasteurization of Shell Eggs. Statistics and Control Conference, McMaster University, Hamilton, ON, Canada, May 24-25, 2012.
9. **Dev, S.R.S,** A. Demirci, and R.E. Graves (2011). Mathematical Modeling of CIP of Milking Systems using Electrolyzed Oxidizing Water. Presented at the NABEC Conference, Burlington, VT, July 24-27, 2011.
10. Kannan, S., **S.R.S. Dev**, Y. Gariépy, V. Orsat and G.S.V. Raghavan. Preliminary analyses of the Dielectric properties of Egg for Radio frequency Pasteurization. Presented at the NABEC Conference, Burlington, VT, July 24-27, 2011.
11. Raghavan, G.S.V., **S.R.S. Dev** and Y. Gariépy (2011). Microwave Engineering for Thermal Applications. Presented at the International Conference on Materials for Advanced Technology 2011, Suntec, Singapore, June 26 – July 1, 2011.
12. **Dev, S.R.S**, V. Orsat, Y. Gariépy and G.S.V. Raghavan (2010) Quality of Milk as a Function of Dielectric Properties. Presented at the NABEC Conference, Geneva, NY, July 18-21, 2010.
13. Dutta, B., **S.R.S. Dev**, R. Gupta, S. M. Manoj, G. Sulebele and G.S.V. Raghavan (2010). Yield and Chemical Quality of Chenna (Milk Protein Coagulate) made from Biochemically modified Buffalo milk. Presented at the NABEC Conference, Geneva, NY, July 18-21, 2010.
14. **Dev, S.R.S**, V. Orsat, Y. Gariépy and G.S.V. Raghavan. (2009). Experimental validation of a stochastic statistical model based decision support system for postharvest storage of tomatoes. Presented at the NABEC Conference, Halifax, NS, Canada, July 26-29, 2009

15. **Dev, S.R.S**, Y. Gariépy, V. Orsat and G.S.V. Raghavan (2009). FEM Simulation of Different Dielectric Heating Techniques for the In-Shell Pasteurization of Eggs. Presented at the CSBE Quebec Conference on Agricultural and Food Engineering, March 25th 2009.
16. **Dev, S.R.S.,** Gariépy, Y., Orsat, V. and Raghavan G.S.V (2008). Pasteurisation par micro-ondes des œufs frais en coquille. Presented at the 76^{e} Congrès de l'Acfas à Québec, ACFAS (L'Association francophone pour le savoir). Quebec City, Canada, May 5-9, 2008.
17. **Dev, S.R.S.**, Y. Gariépy, V. Orsat and G.S.V. Raghavan (2008). Radio Frequency Thermal Processing for In-Shell Pasteurization of Eggs. NABEC Annual Conference Aberdeen, MD, July 27-30, 2008
18. **Dev, S.R.S**, N. Mittal Y. Gariepy, V. Orsat and G.S.V. Raghavan (2007) Simulation and Modeling of Microwave heating of In-shell Eggs. Presented at the NABEC Conference, Wooster, OH, U.S.A, held Jul 29-Aug 1, 2007.
19. **Dev, S.R.S**, G.S.V. Raghavan and Y. Gariépy (2006). A Study of Dielectric Properties for Microwave Pasteurization of Shell Eggs. Presented at the NABEC Conference, Montreal, QC, Canada, Jul 30-Aug 2, 2006.
20. **Dev, S.R.S**, G.S.V. Raghavan and Y. Gariépy (2006). A Decision Support System for the Post harvest Handling and Storage of Fresh Fruits and Vegetables. Presented at the NABEC Conference, Montreal, QC, Canada, Jul 30-Aug 2, 2006.
21. Padmini, T., **S.R.S. Dev**, G.S.V. Raghavan and Y. Gariépy (2005). Characterisation of the hay box. Presented at the NABEC Conference, Lewes, DE, Aug. 7-10.

Book Chapters

1. **Dev, S.R.S** and G.S.V. Raghavan (2013), 'Radio Frequency Drying of Foodstuff' in 'Electro-Technologies for Food Processing: Book Series. Volume 3. Radio Frequency: Principles, Practice and Applications; Ed: Awuah, Ramaswamy, and Tang. CRC Press (In Press).
2. **Dev, S.R.S.,** A. Hussain, and G.S.V. Raghavan (2013). 'Membrane Processing of Food Materials' in 'Introduction to Advanced Food Processing Technologies'. Ed. J.K. Sahu. Taylor and Francis Group LLC. Cat. No. K13794.
3. **Dev, S.R.S** and G.S.V. Raghavan (2012), 'Electrical Properties of Foods' in 'Contemporary Food Engineering' Book Series. Volume 1. 'Physical Properties of Foods:

Novel Measurement Techniques and Applications'. Ed. Arana. CRC Press. eISBN: 9781439835371, pISBN: 9781439835364.

4. **Dev**, **S.R.S.,** S.L. Birla, J. Subbiah and G.S.V. Raghavan (2012) 'Microbial Decontamination of Food by Microwave and Radio-Frequency' in 'Microbial Decontamination in the Food Industry: Novel Methods and Applications' Ed. Ngadi and Demirci. Woodhead Publishing. eISBN 9780857090850 pISBN: 9780857095756
5. Cheng, K., **S.R.S. Dev**, K.L. Bialka and A. Demirci (2012) 'Electrolyzed oxidizing water for food decontamination' in 'Microbial Decontamination in the Food Industry: Novel Methods and Applications' Ed. Ngadi and Demirci. Woodhead Publishing. eISBN 9780857090850 pISBN: 9780857095756
6. **Dev**, **S.R.S.,** N.M. Keklik, A. Demirci and G.S.V. Raghavan (2012) "Microbiological Safety and Decontamination of Chicken Eggs" in "Eggs: Nutrition, Consumption and Health" Ed. Gotsirize-Columbus, Nova Science Publishers, Inc, Hauppauge, NY. ISBN: 9781621001256.
7. **Dev, S.R.S** and G.S.V. Raghavan (2012), 'Non-Osmotic Pretreatments in Food Drying' in 'Food drying' Ed. Law, Sachin and Mujumdar. eBook. Wiley-Blackwell Publishers.

Published Books

1. Hussain, A., S. R. S. Dev, G. S. V. Raghavan (2010). Microwave Assisted Separation of Eggshell and Membrane. Lambert Academic Publishing Paperback: 96p. ISBN-10: 3843357897 ISBN-13: 978-3843357890

Reports of Invention:

1. "Electromagnetic Radiation for Production of Nanoscale Products from Biochar for Diverse Applications". Report of invention submitted at McGill University, Canada (ROI# 11028). B. Dutta, **S.R.S. Dev**, Y. Gariépy and G.S.V. Raghavan (2010).
2. "Non-linear slotted waveguide for diverse applications". Report of invention submitted at McGill University, Canada (ROI# 11022). **S.R.S. Dev**, Y. Gariépy and G.S.V. Raghavan (2010).

Theses

1. **S.R.S. Dev** (2007) Microwave Pasteurization of Shell Eggs – A Prelude. Dissertation submitted for the degree of Master of Science, Department of Bioresource Engineering, McGill University, Canada

2. **S.R.S. Dev** (2010) Microwave Pasteurization of Shell Eggs – A Comprehensive Study. Dissertation submitted for the degree of Doctor of Philosophy, Department of Bioresource Engineering, McGill University, Canada

Appendix D

Support Letter from the University of Florida

College of Agricultural and Life Sciences
Food Science & Human Nutrition
PO Box 110370
Gainesville, FL 611
352-392-1991 Tel
352-392-9467 Fax

July 3, 2012
Neil James, Ph.D.
Professor and Food Science Program Leader
College of Agriculture and Food Sciences
Florida A& M University
305 South Perry-Paige
Tallahassee, FL 32307

Dear Dr. James,
What a pleasure speaking with you about the development of a BS degree in Food Science at Florida A&M University. Our undergraduate Food Science major at the University of Florida enrolls about 80 students and our graduate program about 20 MS students and 20 PhD students. There will always be great careers in the food industry, so your program will be a welcome addition to training new food scientists. I hope we can also collaborate through the National and the Florida division of the Institute of Food Technologists. They have many programs that we participate in such as College Bowl and the regularly schedule monthly meetings.
Please let us know if we can assist any further.
Sincerely,

Susan S. Percival, PhD
Professor and Chair
P.O. Box 110370
Food Science & Human Nutrition
University of Florida
Gainesville, FL 32611
352-392-1991 x 217
Fax 352-392-9467

FAMU Advisory Reviews for Academic Program Proposals

The Dean of the College of Agriculture and Food Sciences has reviewed the proposal for the B.S. Food Science and recommends it for consideration.

DocuSigned by:
Robert Taylor
F8C5064088494F1...
Dean or Chair/Director of the academic unit — 4/25/2016 — Date

The College Curriculum Committee of the College/School in which the program resides has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by:
Neil James
A0239C0B8B3E429...
Chair, College Curriculum Committee — 4/26/2016 — Date

The University Program Authorization Review Committee (UPARC) has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by:
[signature]
7F8E7C4C4C304F5...
Chair, UPARC — 4/25/2016 — Date

The Curriculum Committee of the Faculty Senate has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by:
Neil James
A0239C0B8B3E429...
Chair, Curriculum Committee of Faculty Senate — 4/26/2016 — Date

The Faculty Senate has reviewed the proposal and affirms that it is consistent with the policies of the full body and recommends approval.

DocuSigned by:
Bettye Grable
2D17386CD79F4E9...
President, Faculty Senate — 4/26/2016 — Date

Graduate Programs Only:
The Chair of the Graduate Council has reviewed the proposal and affirms that it is consistent with the policies of that Council.

Chair, Graduate Council

[signature] — 4-26-16

Signature of Provost and Vice President for Academic Affairs — **Date**

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Date: May 11, 2016

Agenda Item: VII-B

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: BS Supply Chain Management (CIP Code 52.0203)

Rationale: The School of Business and Industry (SBI) is proposing to offer a Bachelor of Science degree in Supply Chain Management, designated as STEM in the Board of Governors Areas of Strategic Emphasis, beginning Fall 2017. The proposed BS Supply Chain Management will involve an introductory study of the complete supply chain management process, including Production Operations Management and Strategic Purchasing. Because the supply chain management practice relies greatly upon sound management informed and guided by quantitative techniques, this program will rely heavily upon mathematical and computer modeling. The objective of the program will be to prepare supply chain management professionals who will be capable of rapidly advancing to middle management positions in corporate America. Consistent with FAMU's mission, the proposed BS Supply Chain Management will also aid in the "advancement of knowledge and resolution of complex issues" not only for our graduates, but also in the economic workforce nationally and in the State of Florida.

Graduates in this field will oversee many of the required business processes in various corporations and will have the ability to respond to the increased complexities associated with logistics and supply chain networks. Nationally, there is a growing trend for Supply Chain baccalaureate degree graduates in the U.S. At the same time, we are also seeing a great interest in African Americans, FAMU's primary constituent, seeking this degree as well. Employment outlook for this field is also favorable. FAMU's School of Business and Industry has a reputation of success in producing qualified graduates and has developed numerous relationships with corporate partners seeking to hire our graduates. A bachelor's degree in Supply Chain Management would further compliment the offerings of SBI and respond to the growing demand of today's workforce and industry need in supply chain and logistics.

The estimated projections and program costs for years one to five are as follows:

Implementation Timeframe	Projected Enrollment (From Table 1)		Projected Program Costs (From Table 2)				
	HC	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
Year 1	15	11.25	$16,089				$181,003
Year 2	25	18.75					
Year 3	35	26.25					
Year 4	55	41.25					
Year 5	75	56.25	$3,981				$223,925

Attachment: BS Supply Chain Management Full Proposal

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve the BS Supply Chain (CIP Code 52.0203) in the School of Business and Industry, effective Fall 2017.

Board of Governors, State University System of Florida

Request to Offer a New Degree Program

(Please do not revise this proposal format without prior approval from Board staff)

Florida A & M University University Submitting Proposal	Fall 2017 Proposed Implementation Term
School of Business and Industry Name of College(s) or School(s)	Infor. Systems and Operations Mgmt. Name of Department(s)/ Division(s)
Supply Chain Management Academic Specialty or Field	BS in Supply Chain Management Complete Name of Degree
52.0203 Proposed CIP Code	

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees		President	Date 5/2/2016
Signature of Chair, Board of Trustees	Date	Vice President for Academic Affairs	Date 4-29-16

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1 in Appendix A. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2 in Appendix A. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	Projected Enrollment (From Table 1)	
	HC	FTE
Year 1	15	11.25
Year 2	25	18.75
Year 3	35	26.25
Year 4	55	41.25
Year 5	75	56.25

Projected Program Costs (From Table 2)				
E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
$16,089	121,166	$0	$0	$181,003
$3,981	129,249	0	0	$223,925

Note: This outline and the questions pertaining to each section must be reproduced within the body of the proposal to ensure that all sections have been satisfactorily addressed. Tables 1 through 4 are to be included as Appendix A and not reproduced within the body of the proposals because this often causes errors in the automatic calculations.

INTRODUCTION

I. Program Description and Relationship to System-Level Goals

A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.

The School of Business and Industry at FAMU currently offers a graduate concentration in Supply Chain Management as part of its Master of Business Administration. The goal of the School is to expand the existing concentration and make it a stand-alone degree as a Bachelor of Science in Supply Chain Management under CIP 52.0203. The proposed program would require 120 credit hours, and would be aimed at providing well-prepared, analytically competent graduates who will be able to rise to the increasing demands of the growing field of Supply Chain Management. Graduates in this field will oversee many of the required business processes in various corporations and will need a greater level of skills and education to respond to the increased complexities associated with logistics and supply chain networks. A Bachelor's Degree in Supply Chain Management can prepare individuals with this knowledge base and also the necessary skills to integrate supply chain management into effective business processes and move rapidly into middle management positions. Based upon SBI's experience, the African-American population has been well served in the SCM field. Those MBA graduates of SBI with an SCM background have been in wide demand from several companies, and some have received 2-3 offers before graduation. One of SBI's corporate partners, an international company, has hired a number of SCM students from SBI, and wishes to hire even more. Therefore, it is anticipated that this degree will be attractive to our native students as well as baccalaureate graduates coming from other institutions.

B. Please provide the date when the pre-proposal was presented to CAVP (Council of Academic Vice Presidents) Academic Program Coordination review group. Identify any concerns that the CAVP review group raised with the pre-proposed program and provide a brief narrative explaining how each of these concerns has been or is being addressed.

The pre-proposal for the BSSCM and Feasibility were presented to the CAVP review group on December 11th, 2015, and was approved without any concern(s.)

C. If this is a doctoral level program please include the external consultant's report at the end of the proposal as Appendix D. Please provide a few highlights from the report and describe ways in which the report affected the approval process at the university.

This paragraph is not applicable for Bachelor's programs.

D. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which specific goals the program will directly support and which goals the program will indirectly support (see link to the SUS Strategic Plan on the resource page for new program proposal).

The proposed BS in Supply Chain Management will support the SUS Planning Goals as follows: A) Strengthen Quality & Reputation of Academic Programs and Universities – The BSSCM will make available a new, high-demand, quality degree to all qualifying students in the state university system while at the same time increasing the number of graduate

degrees offered by FAMU. B) Strengthen Quality & Recognition of Commitment to Community and Business – One of the objectives of the executive branch of State government is to attract corporations and businesses to Florida. This policy has proven successful, and is creating the need for professionals in the SCM area. Thus, the new program will help to provide SCM professionals to fill positions in workforce; C) Strengthen Quality & Reputation of Scholarship, Research, and Innovation Building world-class academic programs and research capacity – SBI has for a number of years had a superior program in SCM. SBI graduates are sought by a number of companies. The proposed BSSCM would make an already high-quality degree program available for growth into a world-class academic program with the capacity for applied research; D) Strengthen Quality & Recognition of Commitment to Community and Business Engagement Meeting community needs and fulfilling unique institutional responsibilities – The proposed BSSCM would strengthen community and business engagement by affording students with an educational opportunity in a growing, professional career, and in doing so, would enable SBI/FAMU to satisfy its institutional responsibilities to both the community and to the businesses in the State; E) Increase the Number of Degrees Awarded within Programs of Strategic Emphasis – The proposed BSSCM would be a STEM degree, and would increase the number of degrees awarded within programs of strategic emphasis.

E. If the program is to be included in a category within the Programs of Strategic Emphasis as described in the SUS Strategic Plan, please indicate the category and the justification for inclusion.

The Programs of Strategic Emphasis Categories:

1. **Critical Workforce:**
   - **Education**
   - **Health**
   - **Gap Analysis**
2. **Economic Development:**
   - **Global Competitiveness**
3. **Science, Technology, Engineering, and Math (STEM)**

Please see the Programs of Strategic Emphasis (PSE) methodology for additional explanations on program inclusion criteria at the resource page for new program proposal.

The proposed program will be included in the STEM category among those programs of strategic emphasis under CIP code 52.0203, Logistics, Materials, and Supply Chain Management.

F. Identify any established or planned educational sites at which the program is expected to be offered and indicate whether it will be offered only at sites other than the main campus.

The proposed program will be offered only at the main campus.

INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY

II. Need and Demand

A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.

According to the Bureau of Labor Statistics, there are about 126,000 SCM professionals in the US at the present time. The entry-level education for this career field is a BS, and the median salary is nearly $73,000. The career outlook for the Supply Chain Management field appears particularly favorable for the foreseeable future, and is expected to grow by approximately 22% to 155,000 by 2022. The growth rate is expected to exceed the average growth rate for other positions. Thus, SCM will provide an excellent opportunity for those who choose to pursue it. The number of Bachelor's Degrees awarded in Supply Chain Management has steadily increased since 2011. Degree productivity nationally has seen an increase by 50% from 2011-2014 in the number of students graduating from these types of programs. At the same time, we are also seeing a great interest in African Americans, FAMU's primary constituent, seeking this degree as well. The number of Bachelor's Degrees awarded to African Americans in Supply Chain Management has increased proportionally, approximately 82%between 2011-2014. FAMU's School of Business and Industry has a reputation of success in producing qualified graduates and has developed numerous relationships with corporate partners seeking to hire our graduates. A bachelor's degree in Supply Chain Management would further compliment the offerings of SBI and respond to the growing demand of today's workforce and industry need in supply chain and logistics.

B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.

Please see response II-A above for employment outlook in the supply chain management career field. Students will respond to academic programs that prepare them for successful careers in challenging fields. In addition, based upon SBI's experience, the African-American population has been well served in the SCM field. The demand for supply chain management professionals will exist at the State, national and international levels. In response to this increase in demand, degree productivity nationally has seen an increase in the number of master's degrees awarded overall in Supply Chain Management and also for African Americans, a primary constituent of FAMU. The number of master's degrees awarded in Supply Chain Management has steadily increased since 2011. Degree productivity nationally has seen an increase by 46% from 2011-2014 in the number of students graduating from these types of programs. At the same time, we are also seeing a great interest in African Americans. The number of master's degrees awarded to African Americans in Supply Chain Management increased by 38% from 2011-2014. Therefore, a Bachelor's Degree in SCM would serve the students of FAMU very well in that increasing numbers of African-American students are being employed. Those MBA graduates of SBI with an SCM background have been in wide demand from several companies, and some have received 2-3 offers before graduation. One of SBI's corporate partners, an international company, has hired a number of SCM students from SBI, and wishes to hire even more. Therefore, it is anticipated that this degree will be attractive to our native students as well as baccalaureate graduates coming from other institutions. Informal surveys conducted by SBI over the past few years have indicated 10-15 students each year who were interested in an SCM career. It is anticipated that the new program will grow from about 5 students initially to 25 students within the five-year planning horizon.

C. If substantially similar programs (generally at the four-digit CIP Code or 60 percent similar in core courses), either private or public exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and

research). In Appendix C, provide data that support the need for an additional program.

As of the present time, no graduate program in the SUS exists in CIP 52.0203, and consequently, no data are available for the state universities. However, members of the CAVP Academic Coordination Workgroup reviewed the program and deemed it to be one they thought would be highly viable and attractive to students. The University of North Florida and Florida International University are in the process of developing a Master's in Logistics and Supply Chain Management and have had their pre-proposals approved by the CAVP at its meeting in December 2015. Because only one other institution in the SUS currently offers an BS/SCM, FAMU's School of Business and Industry is currently collaborating with the FAMU-FSU College of Engineering whereby students in the College of Engineering are afforded the opportunity to add the graduate concentration in Supply Chain Management as part of their existing degree. The agreement between SBI and FAMU-FSU College of Engineering was formalized with a memorandum of understanding in May 2012. Also, it is anticipated that collaborations with Florida Polytechnic University, University of North Florida, and University of West Florida may be possible.

D. Use Table 1 in Appendix A (1-A for undergraduate and 1-B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 40 credit hours per year and graduate FTE will be calculated as 32 credit hours per year. Describe the rationale underlying enrollment projections. If students within the institution are expected to change majors to enroll in the proposed program at its inception, describe the shifts from disciplines that will likely occur.

The FTE calculations are based upon 32 credit hours per year. Enrollment projections are based upon the number of undergraduate students in SBI who indicate an interest in the SCM field. Growth includes these plus those students from other institutions who will be attracted to earn the degree at SBI.

E. Indicate what steps will be taken to achieve a diverse student body in this program. If the proposed program substantially duplicates a program at FAMU or FIU, provide, (in consultation with the affected university), an analysis of how the program might have an impact upon that university's ability to attract students of races different from that which is predominant on their campus in the subject program. The university's Equal Opportunity Officer shall review this section of the proposal and then sign and date Appendix B to indicate that the analysis required by this subsection has been completed.

FAMU is an equal opportunity and equal access university and the BS degree in Supply Chain Management will uphold that mission. Strategic Initiative 4 in the SBI strategic plan requires that SBI "Expand Diversity and International Initiatives." Specifically, Goal 4.1 requires SBI to "Expand Diversity Initiatives." To achieve this goal, the proposed BSSCM program will be open to all qualified students, regardless of race, color, religion, creed, gender, national origin, disability, marital or veteran status, or any other legally protected status. SBI through its corporate partnerships will seek to recruit highly qualified and diverse students.

III. Budget

A. Use Table 2 in Appendix A to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 in Appendix A to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than

cumulative costs.)

See Tables 2 and 3, Appendix A. No new resources are required to implement the proposed BS Supply Chain Management. Faculty are already dedicated to the program and teaching SCM courses required for existing programs in the School of Business and Industry.

B. Please explain whether the university intends to operate the program through continuing education on a cost-recovery basis, seek approval for market tuition rate, or establish differentiated graduate-level tuition. Provide a rationale for doing so and a timeline for seeking Board of Governors' approval, if appropriate. Please include the expected rate of tuition that the university plans to charge for this program and use this amount when calculating cost entries in Table 2.

RESPONSE: The tuition rate to be charged for the courses in this program is the standard, differentiated, graduate-level tuition rate.

C. If other programs will be impacted by a reallocation of resources for the proposed program, identify the impacted programs and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).

It is not anticipated that there will be any impact on other programs within the School of Business and Industry. Currently, faculty are already teaching the required courses as part of their regular assignment.

D. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).

RESPONSE: Not applicable.

E. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.

The School of Business and Industry has strong working relationships with a number of corporate partners who are very interested in SBI Supply Chain graduates. Several corporate partners have already hired SBI graduates with Supply Chain backgrounds, and wish to hire more. Informal discussions with these corporate partners indicate that they will support the program by providing internship opportunities, which will allow students to complete thesis projects of importance to the companies. It is also believed that it will be possible to arrange such opportunities with such Federal agencies as the Department of Defense.

IV. Projected Benefit of the Program to the University, Local Community, and State

Use information from Tables 1 and 2 in Appendix A, and the supporting narrative for "Need and

Demand" to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.

The career outlook for the supply chain management field is outstanding for the foreseeable future, growing by nearly 130,000 in the next seven years, with a starting salary of $73,000, which will rival that of the engineering field. Graduates in this field will oversee many of the required business processes in various corporations and will have the ability to respond to the increased complexities associated with logistics and supply chain networks. Nationally, there is a growing trend for Supply Chain baccalaureate degree graduates in the U.S. At the same time, we are also seeing a great interest in African Americans, FAMU's primary constituent, seeking this degree as well. Employment outlook for this field is also favorable as seen in the Bureau of Labor Statistics projections for this discipline. FAMU's School of Business and Industry also has a reputation of success in producing qualified graduates and has developed numerous relationships with corporate partners seeking to hire our graduates. A bachelor's degree in Supply Chain Management would further compliment the offerings of SBI and respond to the growing demand of today's workforce and industry need in supply chain and logistics.

V. Access and Articulation – Bachelor's Degrees Only

A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a separate request to the Board of Governors for an exception along with notification of the program's approval. (See criteria in Board of Governors Regulation 6C-8.014)

The total number of credit hours for the Bachelor of Science in SCM will be 120.

B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see link to the Common Prerequisite Manual on the resource page for new program proposal). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as "limited access."

If the proposed prerequisites are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional "track" of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.

The proposed program will follow the approved common pre-requisites for CIP Code 52.0303 Track 3/3.

C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that Florida College System transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in Board of Governors Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.

Limited access will not be sought for the program.

D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see link to the Statewide Articulation Manual on the resource page for new program proposal). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.

Not applicable for Bachelor of Science in Supply Chain Management.

INSTITUTIONAL READINESS

VI. Related Institutional Mission and Strength

A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan (see link to the SUS Strategic Plan on the resource page for new program proposal).

The mission statement of Florida A&M University dictates that the University develop and implement new degree programs based on University priorities that are consistent with the Florida Board of Governors established goals and distinctive missions. In concert with the mission statement, this proposal seeks to develop a new degree program, the Bachelor of Science degree in Supply Chain Management that meets market and student demands, which is a strategic goal outlined in the University's strategic plan and a degree program targeted in the State University System of Florida's strategic plan. Moreover, the BSSCM is consistent with the following SBI strategic initiatives: Initiative 1) Enhance the Educational Program Quality, Access, Recruitment, Enrollment, Retention, Progression, & Graduation at the Undergraduate and Graduate Levels; Initiative 2) Acquire and Retain Necessary Institutional Resources (Human, Physical, Financial, & Technological); Initiative 4: Expand Diversity and International Initiatives.

B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.

Florida A&M University is the leading producer of baccalaureate degrees awarded to African-American students in the SUS and one of the leading producers nationally. FAMU's School of Business and Industry also has a well-known reputation for producing African American graduates in the business world, based on its innovative business education model of "academic, professional development, and internship experiences. The Bachelor of Science degree in Supply Chain Management will further enhance the University's institutional strength in the production of degrees awarded to African Americans by providing graduates with a sound educational background in Supply Chain to meet the workforce requirements for the State of Florida as well as the global workforce. This degree will also increase the number of STEM prepared graduates.

C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology in table format of the activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.

The planning process for this degree included numerous activities and participants from the SBI faculty and administration, as well as the University administration. An approximate chronology of the planning process events is as follows:

Planning Process

Date	Participants	Planning Activity
Nov 2015	Drs. Kincey and Sutterfield	Consultation on proposal document
Nov 2015	UPARC and FAMU Provost	Approval of Feasibility Study
Oct 2015	Fred Towler and Dr. Sutterfield	Discussion of proposed SCM program
Sept 2015	SBI Dean, Drs. Davis, Nkansah & Sutterfield	Status report on feasibility study
Sept 2015	Drs. Kincey and Sutterfield	Consultation on feasibility document
Sept 2015	CAVP Conference	Presentation & approval of pre-proposal
Sept 2015	SBI Dean and Faculty	Progress report to faculty
Sept 2015	SBI Dean, Drs. Davis, Nkansah & Sutterfield	Status report on pre-proposal document before faculty meeting
Sept 2015	SBI Dean, Drs. Davis, Nkansah & Sutterfield	Discussion of details of pre-proposal document
Aug 2015	SBI Dean and faculty	Status report on progress
Aug 2015	Drs. Kincey and Sutterfield	Consultation on pre-proposal document
July 2015	SBI Dean and Dr. Sutterfield	Dr. S. assigned to prepare documents
Apr 2015	SBI Dean and faculty	Faculty approves MSSCM plan
Apr 2015	SBI Dean and faculty	Faculty presented with MSSCM plan
Mar 2015	SBI Dean and Curriculum Committee	Discuss program details and options
Dec 2014	SBI Dean and Administrators	Discuss new program possibilities

Events Leading to Implementation

Date	Implementation Activity
Apr 2015	Dr. Sutterfield: Special project with International Paper concerning production operations management
Mar 2015	Dr. Sutterfield: Two presentations on production operations management at 2015 IEMS Conference
Nov 2014	Dr. Cole: Presentation of SCM paper at Decision Sciences Institute
May 2014	Dr. Etienne: TQM paper and presentation at GABE
Mar 2014	Dr. Sutterfield: Presentation of SCM paper at 2014 IEMS Conference

VII. Program Quality Indicators - Reviews and Accreditation

Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.

The Accreditation Council for Business Schools and Programs (ACBSP) accredits Florida A&M University School of Business and Industry. ACBSP is recognized by the Council for Higher Education Accreditation (CHEA) to accredit business, accounting, and business-

related programs at the Associate, Baccalaureate, Master's, and Doctoral degree levels worldwide. ACBSP's Spring 2013 accreditation visit resulted in no recommendations. The proposed degree will be reviewed as part of the Schools' overall accreditation.

VIII. Curriculum

A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor's degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.

Learning outcomes for the proposed program will include an introduction to all facets of the supply chain management enterprise. Developing a supply chain strategy to conform to the corporate competitive strategy; the supply chain logistical drivers, facilities, inventory and transportation; the cross functional drivers, information, sourcing and pricing; the coordination and adjustment of the logistical drivers and the cross functional drivers to ensure conformity of supply chain operation with the supply chain strategy. Other topics will include risk analysis, facilities planning, aggregate planning, and pricing. The course of study will introduce the student to the basic quantitative methods and mathematical modeling for supply chain analysis. The learning outcomes for the BSSCM are as follows:

The student will be able to …

1) Identify the various functional areas in the supply chain
2) Define the relationship between the corporate strategy and the supply chain strategy and explain how to bring them into conformity
3) Identify the functional drivers and metrics in designing a supply chain strategy
4) Design and operate a supply chain network
5) Apply analytical tools for supply chain analysis
6) Analyze risk in the supply chain

B. Describe the admission standards and graduation requirements for the program.

RESPONSE: Admission requirements to the program will be consistent as those required for the University and entry into the School of Business and Industry existing programs Graduation from the program will require completion of 120 course hours from the prescribed course of study.

C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.

The total number of semester credit hours for the proposed program will be 120. The core courses are to be Production Management, Purchasing and Supply Management, Introduction to Supply Chain Management, Advanced Risk Management, and Quantitative Methods II. The electives will be restricted to Successful Business Negotiations or Human Resources Management. The program will not contain any unrestricted electives.

D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.

A typical sequence in within the courses for the program is shown in the following tables:

Year 1		
Course number	*Course title*	*Credit hours*
ENC 1101	Freshman Composition I	3
ENC 1102	Freshman Composition II	3
MAC 1105	College Algebra	3
MAD 2120	Finite Mathematics	3
BSC 1005	Biological Science	3
BSC 1005L	Biological Science Lab	1
PSC 1121C, AST 1002	Phy. Science, Astronomy or Natural Science	4
Year 1 (cont'd)		
Course number	*Course title*	*Credit hours*
SPC 1017 or 2608	Foundations of Speech or Public Speaking	3
HUM 2211	Historical Survey I	3
HUM 2230	Historical Survey II (or other topical Human.)	3
GEB 1091	Intro. to Prof Leadership & Develop I	1
[redacted]	*Semester hours*	30
	Cumulative hours	30

Year 2		
Course number	*Course title*	*Credit hours*
ECO 2013	Principles of Economics I	3
ECO 2023	Principles of Economics II	3
ACG 2021	Financial Accounting Principles	3
AMH 2010 or 2020	U.S. History	3
AMH 2091	Introduction to African-American History	3
MAC 2233	Business Calculus	3
QMB 2100	Quantitative Methods in Business I	3
SYG 2000 or 3010	Intro. to Sociology or Social Science Elective	3
QMB 3602	Quantitative Methods in Business II	3
GEB 2082	Professional Leadership and Development II	2
[redacted]	*Semester hours*	29
	Cumulative hours	59

Year 3		
Course number	*Course title*	*Credit hours*
MAN 4532	Introduction to Risk Management	3
MAN 4504	Production Management	3
ACG 3361	Cost Accounting	3
MAN 4549	Introduction to Quality Management	3
GEB 3213	Prof. Bus. Comm. & Report Writing	3
FIN 3403	Corporation Finance	3
MAR 3023	Principles of Marketing	3
MAN 3025	Principles of Management	3
ACG 2071	Managerial Accounting Principles	3
ENC 3320	Advanced Composition	3
GEB 3084	Adv. Prof. Leadership Development II	1
[redacted]	*Semester hours*	31
	Cumulative hours	90

Year 4		
Course number	*Course title*	*Credit hours*
TRA 4722	Introduction to Supply Chain Management	3
MAR 4461	Purchasing and Supply Management	3
ARC 4010	Facilities Management	3
ECO 4704	International Trade	3

Year 4: (cont'd)		
Course number	*Course title*	*Credit hours*
BUL 4130	Legal Environment of Business	3
MAN 4720	Business Policy	
GEB 4931	Senior Seminar & Leadership I	1
GEB 4932	Senior Seminar & Leadership II	1
	Electives	10
	Total Semester	30
	Cumulative hours	120

D. Provide a one or two-sentence description of each required or elective course.

MAN 4504 – Production Management: An introduction to the various facets of production management, beginning with the importance of strategy, including facilities planning, forecasting, project management, and an introduction to six-sigma (3 hrs.).

TRA 4722 – Introduction to Supply Chain Management: A comprehensive study in supply chain management; the relationship between corporate strategy and supply chain strategy; the use of the cross-functional drivers and logistical drivers in the supply chain strategy; introduction to risk analysis (3hrs.).

MAR 4461 –Purchasing and Supply Management: An introduction to purchasing and its relationship to and importance in global competitiveness; simple transportation models (3hrs.).

MAN 4532 – Introduction to Risk Management: Introduces the types of risk to which supply chains are exposed, with emphasis upon the use of mathematical modeling to develop a risk mitigation strategy (3hrs.).

MAN 4549 – Introduction to Quality Management: Introduces the student to the fundamental concepts of quality, the tools of quality, the use of control charts and six-sigma (3 hrs.).

QMB 3602 – Quantitative Methods II: Study in management science techniques, introduction to linear programming, transportation programming, inventory management, and decision modeling techniques (3hrs.).

MAN 4XXX – Electives (12 hrs.)

E. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and indicate whether any industry advisory council exists to provide input for curriculum development and student assessment.

The topics comprising the curriculum were chosen because of the skills sought by SBI corporate partners, as well as those that are necessary at the various stages of the supply chain process. They were chosen to prepare students for a career in any facet of supply chain management, and to enable them to advance in this career field by moving easily from one area to another.

F. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.

RESPONSE: The BS Supply Chain Management will be reviewed as part of the accreditation for the School of Business and Industry. It is also anticipated graduates will be eligible for certification in SCM upon completion of the degree.

G. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?

Not applicable for Bachelor of Science

H. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2 in Appendix A. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

The Bachelor of Science degree in Supply Chain Management will be offered in the School of Business and Industry at Florida A&M University in Tallahassee, Florida. The degree program will employ a combination of the traditional and nontraditional systems in delivering the educational program. The program delivery system will not require any specialized services, nor will it incur any additional costs. No plans have been made to offer this program in collaboration with other universities.

IX. Faculty Participation

A. Use Table 4 in Appendix A to identify existing and anticipated full-time (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).

For the details of this response, please see Table 4 or Appendix A. The professors who will be participating in this program are Drs. Sutterfield, Ridley, Etienne and Cole. All hold at least the Ph.D., and Dr. Sutterfield has done some post-doctoral study. Sutterfield, Ridley and Etienne are tenured, and Cole is tenure track. Dr. Sutterfield is on a 9 month contract, and the others on a 12 month contract. Drs. Sutterfield, Ridley and Etienne have major areas in Production Operations Management, the most important facet of Supply Chain

Management, and have taught Supply Chain Management for several years. Dr. Cole has a Ph.D. and has been teaching Supply Chain Management since his arrival at SBI in 2013. All are academically qualified. No visiting or adjunct faculty will be used in this program.

B. Use Table 2 in Appendix A to display the costs and associated funding resources for existing and anticipated full-time faculty (as identified in Table 2 in Appendix A). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.

Please see Table in Appendix A for this information. Only full-time faculty will be employed for the program.

C. Provide in the appendices the abbreviated curriculum vitae (CV) for each existing faculty member (do not include information for visiting or adjunct faculty).

The curriculum vitae for each permanent faculty member are provided in Appendix B. No visiting or adjunct faculty will be employed in the program.

D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.

The tables referenced in this paragraph, which provide supporting details, may be seen at Appendix C. SBI faculty members who will be assigned to the M.S. degree program in Supply Chain Management are in engaged in research activities; continuous improvement of their instructional content and delivery; and service at the institutional, professional, and community levels, which may include activities related to economic development and organizational consulting, as reflected in Table 1. Additionally, Tables 2 and following show that for the past five (5) years, SBI faculty members assigned to the M.S. degree program in Supply Chain Management are engaged in research activities in the areas of teaching, discovery, application and integration. Curriculum vitae for each faculty member may be found in Appendix D in connection with this paragraph.

X. Non-Faculty Resources

Library resources and services are sufficient to ensure the achievement of the goals and outcomes of the Bachelor of Science in Supply Chain Management. The University Libraries provide collections of current books, periodicals, and pertinent reference materials, which are readily accessible to students and are sufficient in scope to support the curriculum. The Samuel H. Coleman Memorial Library (the main library) and branch libraries provide traditional print, as well as electronic access to full text databases, e-journals, e-books, images and video. Library collections contain materials that support the Supply Chain Management curriculum directly and indirectly through interdisciplinary collections.

The following table shows library holdings targeted for use by the general campus and community population, as well as holdings targeted to support Supply Chain Management.

Library Resources	*GENERAL*	*Business*	*Supply Chain Management*
Holdings	*1,638,853*	*75,290*	*566*
Books	*1,407,354*	*46,269*	*541*
Images/Video	*95,458*	*6,242*	*4*
Electronic Books	*173,004*	*13,522*	*273*
Journals/Serial	*116,217*	*21,561*	*19*
Electronic Journals	*90,192*	*20,628*	*19*

Electronic databases	*320*	*36*	*36*

The University maintains borrowing agreements and memberships that mutually enhance resources availability for FAMU and other Florida learning communities. Partnerships are with the State University Libraries of Florida, the Florida College System Libraries and the State Library of Florida. The Libraries are members of the Florida Academic Library Services Cooperative (FALSC), which provides services to the users and staff of Florida's public college and university libraries. Florida public postsecondary college and university libraries provide services directly and indirectly to students and faculty of State of Florida postsecondary institutions. Over 13,000 volumes held by the other 39 Florida public postsecondary institutions supplement the FAMU collections related to Supply Chain Management. The following information details additional resources and services available to FAMU students and faculty.

Libraries	*GENERAL*	*Business*	*Supply Chain Management*
State University System	*39,941,347*	*826,889*	*6,791*
Florida College System	*6,200,388*	*458,507*	*6,534*

Onsite and reciprocal borrowing privileges to students and faculty at all 40 Florida public institutions of postsecondary education is provided. Service includes daily document delivery via statewide courier to over 250 libraries in the Florida Library Information Network (FLIN). FAMU students and faculty have access to the courier service for interlibrary loan transactions.

Budget

The following chart illustrates the University Libraries' funding over the last five years and its expenditures for library/information resources in supply chain management during that period.

University Libraries Budget

Year	*2010-2011*	*2011-2012*	*2012-2013*	*2013-2014*	*2014-2015*
University Libraries Budget	*$2,500,401.00*	*$2,625,803.00*	*$3,417,950.00*	*$3,773,647.00*	*$3,088,963.00*
Supply Chain Management					
Books	*$7,305.00*	*$10,123.00*	*$17,361.00*	*$20,277.00*	*$12,561.00*
Journals	*$71,369.00*	*$47,969.00*	*$51,073.00*	*$54,222.00*	*$57,488.00*
Databases	*$127,060.00*	*$170,695.00*	*$178,825.00*	*$176,452.00*	*$183,760.00*
Total	*$205,734.00*	*$228,787.00*	*$247,259.00*	*$250,951.00*	*$253,809.00*

Access to Collections and Services

Students, faculty and staff have access to collections, resources and services 24 hours a day, seven days a week, either through the 140 hours that the main library is open or through the library web page. Through the University Libraries' web page, faculty and students have full access to the FAMU library catalog on or off campus, and the library catalogs of the State University System and Florida College System libraries. Online resources and services are available within the libraries, from campus computers, in faculty offices, and from residence halls. Off-campus access is also available 24 hours a day to authenticated users (students, faculty, and staff). Support services such as instruction, interlibrary loans, loan renewals, course reserves, reference assistance, and distance learning services are also accessible from the web page. vices

FAMU Libraries provide a full range of traditional and innovative library services. Users have access to reference services via local and toll free telephone, electronic mail, online chat service (AskALibrarian), text and fax. Services enable users to access and to use information resources in the libraries and from remote locations. The Information Commons, in Coleman Library, allows users to access main library services from one common area. Several Library services are available from this service point. Services include borrowing privileges, interlibrary loan, course reserves, reference and research services, and systems support services.

Borrowing Privileges

Students, faculty, and staff have borrowing privileges at the FAMU Libraries, and reciprocal borrowing privileges to the 40 public universities and colleges in Florida. Borrowers may view and renew items that are currently checked out through the online catalog.

Interlibrary Loan

Students, faculty, and staff who are currently enrolled and engaged in academic research have Interlibrary Loan (ILL) borrowing privileges to the 40 public universities and colleges in Florida and to other libraries globally. Requests may be initiated in person or through the online catalog, which along with reciprocal borrowing, provides access to materials that the University does not own.

Course Reserves

Print and electronic materials may be placed on reserve at the Libraries. The reserve service provides a central and convenient location for students to retrieve materials. These materials are owned by the University or come from the private collections of faculty who place materials on reserve for enrolled students.

Reference and Research Services

On site and virtual reference/research services are provided. Reference Services include individual research/ consultation, the provision of electronic and print research guides and the provision of online tutorials. Reference librarians provide a variety of instructional services to meet the information literacy needs of students, faculty, staff, administrators, and the community at large.

Instruction/Information Literacy

The University Libraries provide competent, quality, and timely instruction through a variety of instructional services. Information is delivered through informal and point of use instruction, individual and group instruction, formal orientations and literacy sessions, orientation to new student groups, subject specific scheduled workshops, printed handouts, research guides and online tutorials. Instruction is provided to local users as well as to distance learners. Library users should be able to differentiate between trustworthy and untrustworthy sources, and have the skills to use resources independently. Information literacy sessions are designed to equip users with the skills needed to locate, evaluate, and use library information resources and services. Formal literacy instruction is based upon goals as defined by classroom faculty. These classes are held in a classroom, which allow hands-on interactive instruction. Library instruction is based upon guidelines published by the Association of College and Research Libraries (ACRL) Guidelines for Instruction Programs in Academic Libraries.

Liaison Program

Librarians work with all academic units to assure that the collection supports defined curricular goals and that adequate services, including instruction are provided. The School of Business has appointed a representative to the Library Collection Development

Committee. This liaison works in collaboration with librarians to evaluate, select, and purchase resources recommended for Business programs, including Supply Chain Management.

Systems Support Services

The Systems Department provides and maintains 250 public computers along with software, hardware and support services necessary for providing and using information resources. Computers are configured to provide access to the libraries' web page and online catalog. Computers are also configured with various types of production software. Computers have been placed in group study rooms and wireless access is available in the Café. Library users can print to designated print stations. Computers are located on each floor of the main library and in all branch libraries. A help desk is staffed as part of the Information Commons to assist users with software applications and technology support. Helpdesk staff assists patrons with directional questions, laptop registration and circulation, referrals and resolution of computing and printing needs and issues.

Staff

All Library and related personnel meet or exceed minimal educational requirements as defined by the Association of College and Research Libraries (ACRL). Librarians hold master's degrees from ALA accredited schools. Additionally, two faculty librarians have completed the specialists' degree in library science and four faculty librarians have completed master's degrees in other subject disciplines. The University employs 15 librarians. Support staff are also very well qualified, evidenced by one support staff holding a master's degree and 17 support staff holding bachelor's degrees.

Facilities

All faculty and students have full access to the facilities of FAMU's Coleman Memorial Library and branch libraries. These facilities more than adequately support faculty and student use of information technology for instruction, learning and research. Coleman Memorial Library occupies approximately 88,964 net square feet. Almost 20,000 additional square feet are available in the branch libraries. The University Libraries have a seating capacity of 834, including group study rooms, a student study lounge and cafe, and 20 graduate/faculty study carrels. Also included are an information literacy classroom and teleconference rooms. All library facilities enjoy dense fiber optic wiring (one outlet for every 40 square feet of floor space) to the desktop. In addition to fiber wiring, much of the main library and its immediate grounds are wireless, enabling students and faculty convenient and generous access to the wireless network using their own supported laptops, or they may borrow one of 24 network-ready laptops from the Library Systems Department for use in the library.

The Office of Instructional Technology is housed in Coleman Library. Instructional Technology contains two teleconference centers/distance learning classrooms, with a combined seating capacity of over 50 people, designed for both satellite teleconferencing and for mediated viewing. The OIT also contains an open computer laboratory and faculty development laboratory. Audiovisual resources and equipment are available for faculty to reserve and/or view.

XI – Non-Discrimination Policy

10.103 Non-Discrimination Policy and Discrimination and Harassment Complaint Procedures of Florida A&M University.

(1) It is the policy of Florida A & M University that each member of the University community be permitted to work or attend class in an environment free from any form of discrimination including race, religion, color, age, handicap, disability, sex, marital status, national origin, veteran status, and sexual harassment, as prohibited by state and federal statutes. Organizations using University facilities, support or services must assure that they do not illegally discriminate in their membership with respect to race, color, religion, age, handicap, disability, sex, marital status, national origin, and veteran status. This commitment applies to all areas affecting students, faculty, administrative and professional (A &P) employees, Executive Service employees, University Support Personnel System (USPS) employees and Other Personal Services (OPS) employees. It is also relevant to the University's selection of contractors, to suppliers of goods and services, and any employment conditions and practices.

APPENDIX A

Board of Governors' New Degree Worksheets

APPENDIX A

TABLE 1-A (DRAFT)
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES
(Baccalaureate Degree Program)

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Upper-level students who are transferring from other majors within the university**	2	1.5	2	1.5	3	2.25	4	3	5	3.75
Students who initially entered the university as FTIC students and who are progressing from the lower to the upper level***	8	6	18	13.5	25	18.75	41	30.75	60	45
Florida College System transfers to the upper level***	3	2.25	3	2.25	4	3	5	3.75	5	3.75
Transfers to the upper level from other Florida colleges and universities***	2	1.5	2	1.5	3	2.25	5	3.75	5	3.75
Transfers from out of state colleges and universities***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
Totals	15	11.25	25	18.75	35	26.25	55	41.25	75	56.25

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.
** If numbers appear in this category, they should go DOWN in later years.
*** Do not include individuals counted in any PRIOR CATEGORY in a given COLUMN.

APPENDIX A

TABLE 2
PROJECTED COSTS AND FUNDING SOURCES

Instruction & Research Costs (non-cumulative)	Year 1 Funding Source							Year 5 Funding Source					
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	Other New Recurring (E&G)	New Non-Recurring (E&G)	Contracts & Grants (C&G)	Auxiliary Funds	Subtotal E&G, Auxiliary, and C&G	Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)	Auxiliary Funds	Subtotal E&G, Auxiliary, and C&G
Faculty Salaries and Benefits	181,003	0	0	0	0	0	$181,003	223,925	0	0	0	0	$223,925
A & P Salaries and Benefits	0	0	0	0	0	0	$0	0	0	0	0	0	$0
USPS Salaries and Benefits	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Other Personal Services	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Assistantships & Fellowships	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Library	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Expenses	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Operating Capital Outlay	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Special Categories	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Total Costs	$181,003	$0	$0	$0	$0	$0	$181,003	$223,925	$0	$0	$0	$0	$223,925

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "other new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Note: Year Five Continuing Base increased due to 1.30% inflation increase.

Faculty and Staff Summary

Total Positions	Year 1	Year 5
Faculty (person-years)	2.84	2.84
A & P (FTE)	0	0
USPS (FTE)	0	0

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	$181,003	$223,925
Annual Student FTE	11.25	56.25
E&G Cost per FTE	$16,089	$3,981

APPENDIX A

TABLE 3 (DRAFT)
ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS*

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Dean's Office	7,232,615	181,003	$7,051,612
Totals	$7,232,615	$181,003	$7,051,612

* If not reallocating funds, please submit a zeroed Table 3

APPENDIX A

TABLE 4 (DRAFT)
ANTICIPATED FACULTY PARTICIPATION

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	J. S. Sutterfield, Ph.D.+ Quant. Meth. & Supp. Chain Mgmnt.	Distinguished Professor	Tenured	Fall 2016	9	0.75	42%	0.32	9	0.75	42%	0.32
A	Eisenhower C. Etienne, Ph.D. Production Operations Management	Professor	Tenured	Fall 2016	12	1.00	63%	0.63	12	1.00	63%	0.63
A	A. Dennis Ridley Production Operations Management	Professor	Tenured	Fall 2016	9	0.75	42%	0.32	9	0.75	42%	0.32
A	Dwayne Cole Supply Chain Management	Assistant Professor	Tenure track	Fall 2016	9	0.75	42%	0.32	9	0.75	42%	0.32
	Total Person-Years (PY)							1.58				1.58

Faculty Code		Source of Funding	PY Workload by Budget Classsification Year 1		Year 5
A	Existing faculty on a regular line	Current Education & General Revenue	1.58		1.58
B	New faculty to be hired on a vacant line	Current Education & General Revenue	0.00		0.00
C	New faculty to be hired on a new line	New Education & General Revenue	0.00		0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.00		0.00
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00		0.00
		Overall Totals for Year 1	1.58	Year 5	1.58

Florida Agricultural and Mechanical University

Academic Learning Compact

Supply Chain Management (BS)

Intended Program Outcomes	Direct and Indirect Measures	
	Criteria for Success	**Methods of Assessment**
Our students will: 1. Identify, isolate and find relationships among concepts or problems 2. Draw sound inferences from multiple perspectives.	**Direct Criteria for Success:** Case analysis in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** Employer Evaluation of Student Performance.	**Direct Assessment Method(s):** 70% of the sample will meet or exceed expectations on 3-point rubric. **Indirect Assessment Method(s):** 70% of the sample will be rated at least 4 on a 5-point scale on Critical Thinking skills.
Our students will develop and present professional quality oral presentations accompanied by appropriate technology. Our students will prepare professional quality written business documents. Our students will demonstrate effective interpersonal communication skills.	**Direct Criteria for Success:** On a written assignment in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. On an oral presentation in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** Employer Evaluation of Student Performance in communication skills.	**Direct Criteria for Success:** On a written assignment in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. On an oral presentation in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** Employer Evaluation of Student Performance in communication skills.
Our students will demonstrate the ability to question team mates without attachment and judgment Our students will demonstrate the ability to offer assistance to other team members Our students will demonstrate the ability to exchange, defend, and rethink ideas with team members team.	**Direct Criteria for Success:** A course-embedded team project a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** On the Employer Evaluation of Student Performance of Collaboration skills.	**Direct Assessment Method(s):** 70% of the sample will meet or exceed expectations on a course-embedded assignment. **Indirect Assessment Method(s):** 70% of the sample will be rated at least 4 on a 5-point scale on Collaboration skills
Our students will know the code of conduct for the School of Business and Industry Our students will identify issues that may present an ethical dilemma, and will articulate the consequences associated with unethical behavior. Our students will identify an ethical dilemma and apply an ethics model to propose and defend a solution.	**Direct Criteria for Success:** On a course-embedded assignment in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** On the Employer Evaluation of Student Performance on Internship survey.	**Direct Assessment Method(s):** 70% of the sample will meet or exceed expectations on a 4-point scoring rubric. **Indirect Assessment Method(s):** 70% of the sample will be rated at least 4 on a 5-point scale for Ethical Understanding.

Intended Program Outcomes	Direct and Indirect Measures	
	Criteria for Success	**Methods of Assessment**
Our students will identify multicultural and diversity concepts in a business scenario. Our students will demonstrate the ability to analyze a multicultural and diversity situation in a business scenario and develop a resolution.	**Direct Criteria for Success:** On a course-embedded case analysis in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** On the Employer Evaluation of Student Performance on Internship survey.	**Direct Assessment Method(s):** 70% of the sample will meet or exceed expectations on a course-embedded case analysis on a 3-point rubric. **Indirect Assessment Method(s):** 70% of the sample will be rated at least 4 on a 5-point scale for Cultural Diversity by employer.
Our students will recognize and apply concepts, principles and theories in the Business Administration program from the following disciplines: Accounting, Finance, Information Systems, Operations Management, Management and Marketing.	**Direct Criteria for Success:** On a comprehensive case analysis administered in a senior-level course, MAN 4720 - Business Policy, MAR 4461, BUL 4130, or TRA 4722. **Indirect Criteria for Success:** On the Employer Evaluation of Student Performance on Internship survey.	**Direct Assessment Method(s):** 70% of the sample will meet or exceed expectations on a 3-point rubric. **Indirect Assessment Method(s):** 70% of the sample will be rated at least 4 on a 5-point scale for Content Knowledge skills.

APPENDIX B

Please include the signature of the Equal Opportunity Officer and the Library Director.

Carin M. Hanin
Signature of Equal Opportunity Officer

February 18, 2016
Date

Faye Watkins
Signature of Library Director

February 18, 2016
Date

This appendix was created to facilitate the collection of signatures in support of the proposal. Signatures in this section illustrate that the Equal Opportunity Officer has reviewed section II.E of the proposal and the Library Director has reviewed sections X.A and X.B.

APPENDIX C

Statistical Data

Table 1: Scholarly and Professional Activities (2010-2015)

Last Name	First Name	Highest Degree	Professional Certification	PRJ	RM	Books	Chapters	PRP	PRPP	FRS	NPRJ	A	B	C	D	Total
Etienne	Eisenhower	PhD		8	0	0	0	0	1	0	0	1	0	2	6	9
Ridley	Dennis	PhD		5	0	0	1	9	0	0	0	1	5	1	8	15
Sutterfield	J. Scott	PhD+	RPE	11	0	0	0	12	12	0	0	4	6	6	19	35
Cole	Dwayne	PhD		2	0	0	1	1	4	0	0	1	2	0	5	8

Legend

PRJ- Peer Reviewed Journals
RM- Research Monographs
PRP- Peer Reviewed Proceedings
PRPP- Peer Reviewed Paper Presentations
FRS- Faculty Research Seminars
NPRJ- Non-Peer Reviewed Journals

A- Scholarship of Teaching
B- Scholarship of Discovery
C- Scholarship of Integration
D- Scholarship of Application

Tables 2, 3, and 4 below provide a summary of SBI faculty members' loads to demonstrate these faculty members' productivity in teaching, research, and service. These tables also show that SBI faculty members who are assigned to the M.S. degree program in Supply Chain Management are engaged in the essential functions of classroom teaching assignments, student advising and counseling activities, scholarly and professional activities, and university/school and community service activities.

Table 2: Faculty Load 2013-2014

Last Name	First Name	Hours Taught	# Preps/ Years	Fall	Spring	Summer	Scholarly Activities	Professional Activities	# Committees
Etienne	Eisenhower	27	5		2	3	Yes	Yes	1
Ridley	Dennis	12	2		0	2	Yes	Yes	1
Sutterfield	J. Scott	6	2		0	0	Yes	Yes	2
Cole	Dwayne	12	1		1	1	Yes	Yes	1

Table 3: Faculty Load 2014-2015

Last Name	First Name	Hours Taught	# Preps/ Years	Fall	Spring	Summer	Scholarly Activities	Professional Activities	# Committees
Etienne	Eisenhower	21	5	3	2	1	Yes	Yes	1
Ridley	Dennis	18	2	1	1	1	Yes	Yes	1
Sutterfield	J. Scott	12	4	1	3	0	Yes	Yes	2
Cole	Dwayne	15	3	1	3	1	Yes	Yes	1

Table 4: Faculty Load 2015-2016

Last Name	First Name	Hours Taught	Number of Preps/Years	Fall	Spring	Summer	Scholarly Activities	Professional Activities	Number of Committees
Etienne	Eisenhower	18	3	2	2	1	Yes	Yes	1
Ridley	Dennis	12	2	1	2	1	Yes	Yes	1
Sutterfield	J. Scott	9	3	1	2	0	Yes	Yes	2
Cole	Dwayne	18	4	2	2	1	Yes	Yes	1

Table 5 below shows SBI's undergraduate student enrollment for the past four (4) years. The average undergraduate student enrollment for the 3-year period was approximately 1154.

Table 5: Undergraduate Student Enrollment

SBI Undergraduate Student Enrollment		
Fall 2015	Fall 2014	Fall 2013
868	962	1087

The number of graduate degrees awarded in SBI for the past three (3) years can be found in Table 6. The average number of undergraduate degrees awarded in SBI during the past three years was approximately 200.

Table 6: Undergraduate Student Degree Productivity

SBI Undergraduate Degrees Awarded		
2014- 2015	2013 - 2014	2012- 2013
213	193	195

Appendix D

Curriculum Vitae

Curriculum Vitae

for

J. S. Sutterfield, Ph.D.

Florida A&M University
School of Business and Industry
Standard Faculty Vitae

Date Received: 4-20-2007

A. GENERAL INFORMATION:

Name: J. S. Sutterfield

Academic Rank: Associate Professor

Graduate	**X**
Undergraduate	

Discipline: Operations Management/Mgmnt. Science

Status:

Primary Teaching Field: Engineering and Supply Chain Management

Email: pisces4914@earthlink.net

Date of Initial Appointment: August 2001

Phone: 850-412-7723

B. EDUCATION/DEGREES

DEGREE	YEAR	INSTITUTION	MAJOR FIELD
Post. Doc.	1994-1995	U. of Mo. Rolla-Rolla, MO	Engineering Management/Mgmt. Science
Ph.D.	1994	U. of Mo. Rolla-Rolla, MO	Engineering Management/Mgmt. Science
MS	1970	U. of Mo. Rolla-Rolla, MO	Mech./Aero. Engr. & Applied Mathematics
BS	1962	U. of Mo. Rolla-Rolla, MO	Mech. Engineering & Applied Mathematics

C. PROFESSIONAL CERTIFICATION AND/OR LICENSES

CERTIFICATION/LICENSE	DATE RECEIVED	ORIGANIZATION	ACTIVE/INACTIVE
Registered Professional	**May 1970**	**Missouri State Board of**	**Inactive**
Engineer in MO: E-13883		**Registration for Architects**	
		and Professional Engineers	

D. PROFESSIONAL WORK EXPERIENCES RELATED TO TEACHING FIELD

YEAR	EMPLOYER	POSITION	PERIOD OF EMPLOYMENT
2/99-6/01	Duchesne High School	Instructor of Physics and Math.	Approximately 3 years
9/99-6/01	Southeast Mo. State University	Adjunct Professor of Industrial Tech.	Two academic years
9/67-11/97	U.S.A. Department of Army	Deputy PM, Chief Engr. & Acq. Mgr.	30-1/4 years

DESCRIPTION OF EXPERIENCES:

1- Instructed students in Physics and Mathematics in preparation for college

2- Instructed university students in industrial technology

3- Managed P.M. operations, managed acquisition of large systems, served as Chief Engineer for PM

SERVICES (TYPE = COMMUNITY, UNIVERSITY, OR SCHOOL)

YEAR/TERM	TYPE	DESCRIPTION
2007 – Pres.	Univer.	General Education Assessment Committee (GEAC)
2007 – Pres.	Univer.	FAMU Honors program board of Directors
2007 – Pres.	School	Strategic Planning Committee
2007 – Pres.	School	Curriculum Committee
2006 – Pres.	Comm.	Special projects officer for Timberlane Church of Christ
2011 – Pres.	Comm.	Board of Directors for New Saints School

E. COURSES TAUGHT DURING PAST FIVE YEARS:

TERM/YEAR	COURSE NO.	SECTION	COURSE TITLE
Spring/2012	TRA 5722	301	Supply Chain Management I
Spring/2012	QMB 2102 & 3602	301 and 304	Quantitative Methods in Business II
Fall/2011	TRA 5723	301	Global Logistics II
Fall/2011	MAR 5465	301	Strategic Purchasing and Supply Management
Fall/2011	MAN 4532	301	Engineering and Production Management
Spring/2011	TRA 5722	301	Global Logistics I
Spring/2011	MAN 5511	301	Production Operations Management
Spring/2011	MAN 4533	301	Management Engineering II
Fall/2010	TRA 5722	301	Global Logistics I
Fall/2010	MAR 5465	301	Strategic Purchasing and Supply Management
Fall/2010	MAN 3532	301	Management Engineering I
Spring/2010	TRA 5722	301	Global Logistics I
Spring/2010	MAN 4503	301	Production Management
Spring/2010	MAN 3532	301	Management Engineering I
Fall/2009	MAR 5465	301	Strategic Purchasing and Supply Management
Fall/2009	MAR 4461	301	Purchasing and Supply Management
Fall/2009	MAN 3532	301	Management Engineering I
Spring/2009	TRA 5723	301	Global Logistics II
Spring/2009	TRA 5723	301	Global Logistics II
Spring/2009	MAR 4461	301	Purchasing and Supply Management
Spring/2008	MAN 3532	301	Management Engineering I
Spring/2008	MAR 4461	301	Purchasing and Supply Management
Spring/2008	MAN 5511	301	Production Operations Management
Fall/2008	MAN 3532	301	Management Engineering I
Fall/2008	MAR 4461	301	Purchasing and Supply Management
Fall/2008	MAR 5465	301	Strategic Purchasing and Supply Management
Spring/2007	MAN 3532	302	Management Engineering I
Spring/2007	MAN 3533	301 and 302	Management Engineering II
Fall/2007	MAN 3532	301 and 302	Management Engineering I
Fall/2007	MAR 5465	301	Strategic Purchasing and Supply Management
Spring/2006	MAN 3532	301 and 302	Management Engineering I
Spring/2006	MAN 5511	301	Production Operations Management
Fall/ 2006	MAN 3532	301 and 302	Management Engineering I
Fall/2006	MAR 5465	301	Strategic Purchasing and Supply Management
Spring/2005	MAN 3532	301 and 302	Management Engineering I
Spring/2005	MAN 5511	301	Production Operations Management
Fall/2005	MAN 3532	301, 302, 303	Management Engineering I
Fall/2005	MAN 4503	303	Production Management
Spring/2004	MAN 3532	301 and 302	Management Engineering I

E. COURSES TAUGHT DURING PAST FIVE YEARS (cont'd):

TERM/YEAR	COURSE NO.	SECTION	COURSE TITLE
Spring/2004	MAN 5511	301	Production Operations Management
Fall/2004	MAN 5511	301	Production Operations Management
Spring/2003	MAN 3532	301 and 302	Management Engineering I
Spring/2003	MAN 5511	301	Production Operations Management
Fall/2003	MAN 3532	301 and 302	Management Engineering I
Fall/2003	MAN 5511	301	Production Operations Management
Fall/2002	MAN 3532	304, 305, 306	Management Engineering I
Spring/2002	MAN 3532	304, 305	Management Engineering I
Spring/2002	MAN 3531	301	Introduction to Management Engineering
Fall/2001	MAN 3532	304, 305, 306	Management Engineering I

F. INTELLECTUAL CONTRIBUTIONS

Note 1: List each contribution in the appropriate category, leaving a blank line between each category.
Note 2: Date each contribution and be able to provide documentary evidence for each contribution.
Note 3: Use APA Chicago, Turabian or any common style recommended by journals in your field.

1. CATEGORY A CONTRIBUTION (Discipline-Based Scholarship)

Intellectual contribution related to the teaching and learning activities of the school. Example of such intellectual contributions includes:

- Published journal article and conference proceedings papers on the theory and practice of effective teaching pedagogies or student learning;
- Presentation at educational conferences and seminars;
- Major editorial responsibilities with pedagogical or learning-focused journals related to the field of the faculty member's area of primary teaching responsibility;
- Development of innovative teaching cases and materials;
- And the development of new course offerings and curricula.

Activities 2008 – Present:

Journal article: **SHKF Paper Company: An Analysis in Strategic Planning Cost Optimization**, *The Business Studies Journal*, double blind referred, LoA dated June 11, 2012

Journal article: **The Use of Analytical Hierarchy Process to Design a Healthcare System**, *The Journal of Management and Engineering Integration*, double blind referred, vol. 4, num. 1, Summer 2011

Journal article: **Supplier Selection Using QFD: A Consumer Products Case Study**, *International Journal of Quality and Reliability Management*, double blind referred, LoA dated July 26, 2011

Journal article: **Using Taguchi Methods in a Marketing Study to Determine Features for a SmartPhone**, *Academy of Marketing Studies Journal*, double blind referred, LoA dated February 21, 2011

Journal article: **A Binomially Distributed Production Process Revisited: A Pedagogical Approach**, *Academy of Information and Management Sciences Journal*, double blind referred, Volume 14, Number 1, 2011, Printed ISSN: 1524-7252

Journal article: **Taguchi Analysis for Plasma Etching Optimization**, *Journal of Management & Engineering Integration*, double blind referred, Volume 3, Number 1, Summer 2010

Journal article: **Production Cost Using the Pascal Distribution**, *Journal of Management & Engineering Integration*, double blind referred, Volume 2, Number 2, Winter 2009/2010

Journal article: **Using Taguchi Methods for Industrial Process Optimization**, *Journal of Academy of Business and Economics*, double blind referred, LoA dated February 13, 2009

Journal article: **Project Management Software Selection Using Analytical Hierarchy Process**, *Academy of Information and Management Sciences Journal*, double blind referred, Volume II, Number 2, 2008, LoA August 6, 2008

Journal article: **The Revolution of Six-Sigma: An Analysis of its Theory and Application**, *Academy of Information and Management Sciences Journal*, double blind referred, Volume II, Number 1, 2008, LoA August 6, 2008

Presentation: **SHKF Paper Company: An Analysis in Strategic Planning Cost Optimization**, *2012 Allied Academics Conference*, New Orleans, LA, April 5, 2012

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods,** *2012 IEMS Conference*, Cocoa Beach, FL, March 26, 2012

Presentation: **The Effect of Religion Upon Consumer Behavior,** *2012 IEMS Conference*, Cocoa Beach, FL, March 26, 2012

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods,** *2012 FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2012

Presentation: **The Effect of Religion Upon Consumer Behavior,** *2012 FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2012

Presentation: **Using Taguchi Methods in a Marketing Study to Determine Features for a SmartPhone**, *2011 Allied Academics Conference*, Orlando, FL, April 8, 2011

Presentation: **Local Business Live Case Analysis & Simulation: Ujama Embroidery and Design**, *2011 FAMU Scholar's Conference*, Tallahassee, FL, March 30, 2011

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods,** *2011 FAMU Scholar's Conference*, Tallahassee, FL, March 30, 2011

Presentation: **The Use of Analytical Hierarchy Process (AHP) to Design a Healthcare System**, *2011 FAMU Scholar's Conference*, Tallahassee, FL, March 30, 2011

Presentation: **Local Business Live Case Analysis & Simulation: Ujama Embroidery and Design,** *2011 IEMS Conference*, Cocoa Beach, FL, March 28, 2011

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods,** *2011 IEMS Conference*, Cocoa Beach, FL, March 28, 2011

Presentation: **The Use of Analytical Hierarchy Process (AHP) to Design a Healthcare System**, *2011 IEMS Conference*, Cocoa Beach, FL, March 28, 2011

Presentation: **Taguchi Analysis for Plasma Etching Optimization**, *2010 FAMU Scholar's Conference*, Tallahassee, FL, March 23, 2010

F. INTELLECTUAL CONTRIBUTIONS

2. CATEGORY B CONTRIBUTION (Learning & Pedagogical Scholarship)

Intellectual contribution related to the teaching and learning activities of the school. Example of such intellectual contributions includes:

- Published journal article and conference proceedings papers on the theory and practice of effective teaching pedagogies or student learning;
- Presentation at educational conferences and seminars;
- Major editorial responsibilities with pedagogical or learning-focused journals related to the field of the faculty member's area of primary teaching responsibility;
- Development of innovative teaching cases and materials;
- And the development of new course offerings and curricula;

Presentation: **Optimizing Outbound Logistics Costs**, *2010 FAMU Scholar's Conference*, Tallahassee, FL, March 23, 2010

Presentation: **Taguchi Analysis for Plasma Etching Optimization**, *2010 IEMS Conference*, Cocoa Beach, FL, March 8, 2010

Presentation: **Using Taguchi Methods to Analyze Fabric Wear,** *2009 FAMU Scholar's Conference*, Tallahassee, FL, March 10, 2009

Presentation: **Production Cost Using the Pascal Distribution**, *2009 FAMU Scholar's Conference*, Tallahassee, FL, March 10, 2009

Presentation: **Using Taguchi Methods to Analyze Fabric Wear,** *2009 IEMS Conference*, Cocoa Beach, FL, March 10, 2009

Presentation: **Production Cost Using the Pascal Distribution**, *2009 IEMS Conference*, Cocoa Beach, FL, March 10, 2009

Presentation: **The Use of Taguchi Methods to Analyze Nozzle Designs for Maximum Water Jet Stability**, 2008 *FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2008

Presentation: **The Six-sigma Revolution: An Analysis of Theory and Practice**, *2008 FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2008

Presentation: **The Use of Taguchi Methods to Analyze Nozzle Designs for Maximum Water Jet Stability**, *2008 IEMS Conference*, Cocoa Beach, FL, March 12, 2008

Presentation: **The Six-sigma Revolution: An Analysis of Theory and Practice**, *2008 IEMS Conference*, Cocoa Beach, FL, March 12, 2008

Proceedings: **Optimization of Turbine Engine Design Parameters with Taguchi Methods-II,** *2012 IEMS Conference referred proceedings, LoA dated*

Proceedings: **The Effect of Religion Upon Consumer Behavior,** *2012 IEMS Conference referred proceedings, LoA dated*

Proceedings: **Optimization of Turbine Engine Design Parameters with Taguchi Methods-I,** *2011 IEMS Conference referred proceedings, pgs. 220-229*

Proceedings: **Local Business Live Case Analysis and Simulation: Ujama Embroidery and Design,** *2011 IEMS referred proceedings, pgs. 32-34*

Proceedings: **Using Taguchi Methods to Analyze Fabric Wear,** *2011 IEMS Conference referred Proceedings, pgs. 203-210*

Proceedings: **The Use of Taguchi Methods to Analyze Nozzle Designs for Maximum Water Jet Stability,** *2008 IEMS referred Proceedings, pgs. 173 - 181*

Course: **Developed and presented course offering for TRA 5723,** *Global Logistics II*, **in Spring 2009**

Course: **Developed and presented course offering for MAR 4461,** *Purchasing and Supply Management*, **in Spring 2008**

Fall 2001 – Spring 2007:

Journal article: **A Conceptual Framework for Integrating Six-sigma and Strategic Management Methodologies to Quantify Decision-Making**, *TQM Magazine, Emerald Publisher*, volume 19, number 6, 2007, ISSN 0954-478X, pgs. 561-571, Dec. 2007

Journal article: **How NOT to Manage a Project: Conflict Management Lessons Learned from a DOD Case Study,** *Journal of Behavior and Applied Management*, May 2007, volume 8, no. 3, pgs. 218-238, ISSN 1930-0158

Journal article: **A Case Study of Stakeholder and Project Management Failures: Lessons Learned,** *Project Management Journal*, Dec 2006, 37, 5, pgs. 26-35, ISSN 8756-9728/03

Journal article: Paper: **The Use of Taguchi Methods to Solve Quality Engineering Problems**, *Journal of International Academy of Business and Economics*, Volume VI, Number 1, 2006, pgs. 228-242, ISBN 1542-8710

Presentation: **Production Yield Using the Pascal Distribution**, *2007 FAMU Scholar's Conference*, MAR 26-28, 2007, Tallahassee, FL

Presentation: **The Use of Taguchi Methods to Analyze Automotive Emissions**, *2007 FAMU Scholar's Conference*, MAR 26-28, 2007, Tallahassee, FL

Presentation: **Production Yield Using the Pascal Distribution**, *2007 IEMS Conference*, MAR 12-14, 2007, Cocoa Beach, FL

Presentation: **The Use of Taguchi Methods to Analyze Automotive Emissions**, *2007 IEMS Conference*, Mar 12-14, 2007, Cocoa Beach, FL

Presentation: **Investigation of Animal Survival Times Comparing Standard Methods with Taguchi Methods**, *2006 FAMU*

Scholar's Conference, Mar. 20, Tallahassee, FL
Presentation: **The Six-Sigma Quality Evolution and the Tools of Six-Sigma,** *2006 FAMU Scholar's Conference, Mar. xx-xx, Tallahassee, FL*
Presentation: **Investigation of Animal Survival Times Comparing Standard Methods with Taguchi Methods,** *2006 IEMS Conference, Mar. 11-13, Cocoa Beach, FL*
Presentation: **The Six-Sigma Quality Evolution and the Tools of Six-Sigma,** *2006 IEMS Conference, Mar. 11-13, Cocoa Beach, FL*
Presentation: **The Use of Analysis of Variance in Production Problem Diagnosis,** *2005 FAMU Scholar's Conference, Mar. 21, Tallahassee, FL*
Presentation: **Metrics for Continuous Process Improvement,** *2005 FAMU Scholar's Conference, Mar. 21, Tallahassee, FL*
Presentation: **The Use of Analysis of Variance in Production Problem Diagnosis,** *2005 IEMS Conference, Mar. 12-14, Cocoa Beach, FL*
Presentation: **Metrics for Continuous Process Improvement,** *2005 IEMS Conference, Mar. 12-14, Cocoa Beach, FL*
Proceedings: **Investigation of Animal Survival Times Comparing Standard Methods with Taguchi Methods**, *2006 IEMS Proceedings*, refereed, pgs. 470-478
Proceedings: **The Six-Sigma Quality Evolution and the Tools of Six-Sigma,** *2006 IEMS Proceedings*, refereed, pgs. 523-532
Proceedings: **The Use of Analysis of Variance in Production Problem Diagnosis,** *2005 IEMS Proceedings*, refereed, pgs. 362-369, ISBN 0-9710330-4-8
Proceedings: **Metrics for Continuous Process Improvement**, *2005 IEMS Proceedings*, refereed, pgs. 370-378, ISBN 0-9710330-4-8
Proceedings: **Analytical Hierarchy Process for Project Management Software,** *2004 IEMS Proceedings*, refereed, pgs. 376-384, ISBN 0-9710330-3-X
Presentation: **Methodology for Using Quality Function Deployment to Improve Processes**, *2003 IEMS Conference*
Proceedings: **Methodology for Using Quality Function Deployment to Improve Processes,** *2003 IEMS Proceedings*, refereed, pgs. 414-420, ISBN 0-9710330-2-1
Proceedings: **A Methodology for Project Management Software Selection,** *2002 IEMS Refereed Proceedings*, CD, Sect. E67-71, ISBN 0-9710330-1-3
Course: Developed and presented course offering for **MAN 4503, Production Management,** Fall 2005
Course: Developed and presented course offering for **MAN 3533, Management Engineering II,** Fall 2004
Evaluation: Wrote evaluation of paper for West Indian Journal of Engineering, December 2004
Course: Developed and presented course offering for **MAN 5511, Production Operations Management,** Spring 2003
Course: Developed and presented course offering for **MAN 3531, Introduction to Management Engineering,** Spring 2002
Course: Developed and presented course offering for **MAN 3532, Managewment Engineering I,** in Fall 2001

COMMENTS/REMARKS
* Editor for International Journal of Quality & Reliability Management, Emerald Group, April 2012
* Negotiated and prepared and a memorandum of understanding with the Engineering school for joint Business and Engineering programs, Feb. – Aug. 2012
* Led team to prepare a proposal for Progress Energy, February 2012 (currently under review)
* Editor for Operations Management Track of AIEMS Journal 2008 – Present
* Editor for Operations Management Track of IEMS Proceedings 2007 – Present
* Chair for Operations Management Track of IEMS Conference 2007 – Present
* Editor for Operations Management Track of 2007 IEMS Proceedings
* Chair for Operations Management Track of 2007 IEMS Conference
* Chair of one session in Operations Management at 2007 IEMS Conference
* Chair for Operations Management Track of 2006 IEMS Conference
* Chair of two sessions in Operations Management at 2006 IEMS Conference
* Chair of two sessions in Operations Management at 2005 IEMS Conference
* Wrote evaluation of paper for West Indian Journal of Engineering, December 2004
* Session chair in Operations Management at 2004 IEMS Conference
* Selected for "Who's Who in Science and Engineering, 2006-2007"
* Selected for "Who's Who Among America's Teachers, 2004-2005"
* Selected for "Who's Who Among America's Teachers, 2003-2004"
* Selected by Alpha Kappa Alpha Sorority as SBI Distinguished Professor for 2004
* Serve on the editorial board of the West Indian Journal of Engineering, 2004- Present
* Appointed track chair In Operations Management for the International Engineering, and Management Systems Conference, April 2006
* Member of ***Emerald Literati*** scholar's society, 2007-Present
* Served as a peer reviewer, consultant and performance monitor on a successful grant from Department of Education, "Global Opportunities on Interstate 10" ($177,451, May 2005)
* Mentored Ms. Breda Platt in teaching MAN 3532 (Fall Semester 2004)

Curriculum Vitae

for

Dwayne C. Cole, Ph.D.

DWAYNE D. COLE, PH.D.

CV

545-4 E. Park Avenue
allahassee, FL 32301
407) 399-2074
e-mail: dwayne.cole@famu.edu / dwaynedcole@gmail.com

EDUCATION

8/07 – 8/11 **Syracuse University**
PhD Supply Chain Management / Marketing (Fall 2011)

Dissertation
Title: "Essays on End-of-Use Product Acquisition Policies"
Committee: Scott Webster (Chair), Amiya K. Basu, Burak Kazaz, Eunkyu Lee, and Santosh. Mahapatra

8/99 – 12/01 **Florida A&M University**
Masters of Business Administration (Fall 2001)

8/98 – 9/99 **Florida State University**
Masters of Science in Management Information Systems (Summer 1999)

8/86 - 5/91 **Florida A&M University**
Bachelors of Science, Actuarial Science (Spring 1991)

RESEARCH INTERESTS

I am generally interested in managerial issues that arise at the intersection of supply chain management, operations management, and marketing distribution channels. I am particular drawn towards on the business aspects of close-loop supply chains and sustainability. I mostly examine economic models that focus on marketing issues related to channel coordination and competition, and operational issues related to flexibility and uncertainty.

AWARDS

Elliott Initiative Doctoral Dissertation Support Award
University of Michigan at Dearborn
Betty F. Elliott Initiative for Academic Excellence.
The award was granted as response to a competitive call for papers related to "The Business of Sustainability".

Decision Sciences Institute – 2014 Annual Meeting Best Analytical Paper Award
Decision Sciences Institute
The award was granted as response to a competitive call for papers related to "The Business of Sustainability".

PUBLICATIONS

- Cole, D., B. Kazaz, S. Webster (2015), "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement: A Deterministic Analysis," *International Journal of Product Research*
- Cole, D., B. Kazaz, S. Webster (2015), "Satisfying Warranty Claims on an Obsolete Product," *Trends and Research in the Decision Sciences*. Ed. Pearson Education (Referred Book Chapter)
- Cole, D., S. Webster, M. Santosh. (2015) "A Comparison of Buyback and Trade-in Policies to Acquire Used Products for Remanufacturing," *Journal of Business Logistics*, (Minor Revisions)

CONFERENCE PAPERS AND PRESENTATIONS

- Cole, D., B. Kazaz, S. Webster, "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement," presentation at the DSI Annual Meeting, Tampa, Nov 22, 2014.
- Cole, D. S. M. Mahapatra, S. Webster, "Product Acquisition for Remanufacturing: A Dynamic Analysis," presentation at the MSOM Conference, New York, June, 2012.
- Cole, D., B. Kazaz, S. Webster, "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement," presentation at the POMS Conference, Reno, Feb 27, 2011.
- Cole, D., B. Kazaz, S. Webster*, "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement," presentation at the MSOM Conference, Ann Arbor, June 27, 2011.
- Benjamin, C.O., Dwayne Cole and Alvin Hicks, "Strategies for campus-wide entrepreneurship programs", Proc., 13th Int'l Conf. on Industry, Engineering & Management Systems (IEMS), Cocoa Beach, FL Mar. 12-14, 2007

POSITIONS HELD

Florida A&M University *(Visiting Professor, Supply Chain Management– 2013 - Present)*

- Graduate MBA level: Strategic Supply Chain Management I & II (MBA)
- Undergraduate MBA level: Production Management, Quantitative Methods of Business Decisions I & II

University of Central Florida *(Lecturer, Supply Chain Management– 2011- 2013)*

- Taught Strategic Supply Chain Management (Undergraduate)
- Taught Strategic Supply Chain Management at the MBA and executive MBA level

Florida A&M University *(Visiting Professor, Quantitative Methods of Business Decisions – 2000/2007)*

- Taught Database Management, Introduction to Business Information Systems, and Systems Theory & Design
- Taught quantitative methods to support business decisions related to resource allocation, demand/capacity management, forecasting, business process design, and spreadsheet simulation and modeling

Florida A&M University *(Student Government Association (Administrative / Faculty Advisor) - 2005 - 2006)*

- Provided administrative and budget over-site of 4 full time employees, 100 part time student employees, and a 3.2 million dollar operations budget
- Re-engineered workflows and job responsibilities to better match strategic goals and objectives of university administration and student government leadership
- Modernized IT infrastructure and introduced database applications to better manage partner relationships, website content, employee time & attendance tracking, inventory & equipment tracking, and a SGA membership & participation

American Express Financial Advisors *(January 2000 / May 2000)*

- Designed "Integrated Strategic Performance Indicators" for a multi-channel service delivery environment
- Performed needs requirement analysis and constructed system design documentation for a Data-Warehouse solution to support "Balanced Scorecard" reporting and "Business Performance Monitoring"

FluxFlow, Business Consultants *(Director of Business Transformation – 1996 - 2004)*

- Enabled e-Business processes by designing and implementing information systems that integrated the company's customer service and order processing functions.
- Designed, developed, and implemented a database driven engagement management system that allows the company to manage, track, and analyze engagement itineraries, customer relationships, and contract information
- Designed and coordinated the development of a Web application system that provides online interface to backoffice product information, articles, and engagement schedules
- Lead a Quality Function Deployment (QFD) team that integrated customer input into the company's New Product Development processes and then facilitated the development and promotion of 4 new products and services

MAAT Educational Services *(Entrepreneurial Venture 1992-1996)*

- MAAT provided academic support services to junior and senior high school students. Services included: Math and Science Tutoring; Study Skills Enhancement courses and workshops; ACT Preparation courses and workshops; Tutor Training workshops, and Parental Suggestion workshops
- Developed custom curriculums and learning materials; planned and implemented market and promotion strategies; and directed administrative operations

Pontiac Area Urban League *(Program Director 1993-1994)*

- Constructed instructional materials, recruited youth advocates, coordinated workshops, solicited support from the leadership of various community organizations, and advocated policy change within local government

DIRECTED STUDIES (Select)

- **Applying Yield Management to control resident assignment of Student Housing**
  Florida A&M University, Student Assisted Study (Spring 2002)
- **Forecasting Safety Escorts to Improve Scheduling and Optimize Resource Allocation**
  Florida A&M University student Safe Team, Student Assisted Study (Summer 2002)
- **Overbooking Strategy for Small Dental Office. Children's Endodontic Therapy**
  Student Assisted Study (Spring 2003)
- **Forecasting Service Delivery and Simulating Service Performance for a Regional Automobile Service Chain**
  SuperLube, Student Assisted Study (Summer 2003)
- **Tallahassee Chamber of Commerce: Forecasting New Member Acquisition and Retention**
  Tallahassee Chamber of Commerce, Student Assisted Study (Fall 2003)

DIRECTED STUDIES (continued)

- **Applying Queuing Theory to Enhance the Accuracy of Estimated Wait time in Restaurant Service Delivery System** *Carraba's Food Chain, Student Assisted Study* (Spring 2004)
- **Applying Exponential Smoothing and Classical Decomposition Models to Forecast Student Course Enrollment** *Florida A&M University School of Business & Industry, Student Assisted Study* (Spring 2004)
- **Operational Capacity Implications of Marketing & Advertising Strategy for Hair Salons and Barbara Shops** *Student Assisted Study* (Summer 2004)
- **Leveraging Linear Programming to Enhance Student Government A&S Budget Allocation** *Florida A&M University Student Government Association, Student Assisted Study* (Spring 2005)
- **Leveraging Queuing Theory and Spreadsheet Simulation to Reduce Student Tardiness and Morning Drop-off Congestion** *Gilchrest Elementary, Student Assisted Study* (Spring 2005)
- **Analyzing Customer Acquisition, Retention, and Switching rates of a mid-size Internet Service Provider** *Network Tallahassee, Student Assisted Study* (Spring 2005)
- **Demand & Capacity Management: New Orleans Arena Concessions Stand** *Student Assisted Study* (Spring 2003)
- **Demand Forecasting for the School of Business & Industry's Computer Lab : Analysis of Sign-in Logs** *Student Assisted Study* (Spring 2002)
- **Quantitative Analysis of Operations at Allen Shannon Flea Market: Forecasting Vendor Lease Delinquency and Maximizing Advertising Circulation through Optimization Modeling.** *Allen Shannon Community Exchange Flea Market, Student Assisted Study* (Spring 2004)
- **Leveraging Simple Forecasting to Reduce delays in University Postal Delivery Systems** , *Florida A&M University / University Post Office, Student Assisted Study* (Spring 2002)

VOLUNTEER / PROFESSIONAL SERVICE

- **SBI / AACSB Learning & Assurance Committee** *Committee Member (2006 - 2007)*
- **Florida A&M University / Student Government Association** *Student Organization / Administrative Advisor (2005 – 2006)*
- **Girl Scout Council of the Big Bend** *Performance Evaluation Task Group (2004)*
- **Tallahassee Chamber of Commerce** *Leads Group 5 Executive Committee (2003 – 2005)*
- **Syracuse University / SUNY Environmental Science and Forestry** *Interdisciplinary Sustainability Research Group (2008 – 2009)*

AFFILIATIONS

The PhD Project (Marketing DSA)
Member (2007 – Present)

Council of Supply Chain Management Professionals
Member (2007 – Present)

American Marketing Association
Member (2007 – Present)

INFORMS
Member (2010 – Present)

Decision Science Institute
Member (2010 – Present)

Curriculum Vitae

for

Eisenhower C. Etienne, Ph.D.

CURRICULUM VITAE

Dr. Eisenhower C. Etienne,
Professor,
Production/Operations Management
Total Quality Management/Six-Sigma
School of Business and industry,
Florida A&M University,
One SBI Plaza,
Tallahassee, FL. 32307.

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February, 2015.

CURRICULUM VITAE

NAME : Eisenhower C. Etienne

POSITION SOUGHT :

EDUCATION:

1971-1974	University of the West Indies, Trinidad, B.Sc.(Management Studies)
1975	Univ. of Western Ontario, Ivey School of Business, London, Canada. MBA (first year)
1982	Univ. of Western Ontario, Ivey School of Business, London, Canada. PhD

AWARDS, HONORS AND DISTINCTIONS:

1971-1974	Summa Cum Laude (First Class Honors), University of the West Indies
1975	MBA-I Dean's Honors List, Ivey School of Business, University of Western Ontario
1975-1977	Doctoral Fellowship, Ivey School of Business, University of Western Ontario
1977-1978	Plan for Excellence Scholarship, Ivey School of Business, University of Western Ontario
1978	Doctoral Research Fellowship, Ivey School of Business, University of Western Ontario
1978	Shell Canada Doctoral Research Award, University of Western Ontario
1994	Outstanding OECS Citizen, High Commission of the Organization of Eastern Caribbean States to Canada
1997	City of Montreal, Outstanding Citizen-Contribution to Business
2003	Academic Faculty of the Year, School of Business and Industry, Florida A&M University
2004	Appeared in "Who's Who Among America's Teachers"
2006	Exemplary Mentor Award, Faculty of Graduate Studies, Florida A&M University

OTHER AWARDS AND DISTINCTIONS:

2002	IRA/TRA, INC., FAMU-SBI. Certificate of Excellence as feature speaker for teaching video on Porter's Five Forces Model
2003	Institute of Management Accountants, FAMU Chapter, Certificate of Appreciation

LANGUAGE COMPETENCY:

English (mother tongue)
French (spoken/written/read fluently)
Spanish (spoken/written/read well)

ACADEMIC PRIZES:

1981	Administrative Sciences Association of Canada (ASAC), Division of Production and Operations Management. Prize for Excellence for the paper: "How to Achieve Factory Focus".
1986	ASAC Prize for Excellence for the paper: "The Distribution of Stock-outs during Lead Time.
1987-1988	School of Business Administration, University of Montreal, Prize for Excellence in research for the year 1987-1988.
2008	Global Academy of Business and Economic Research (GABER), International Conference, September, 2008 (Orlando, Florida), Best Paper Award for the paper: "Marketing Differentiation Synergies of High-Velocity Inventory Turns".

TEACHING EXPERIENCE:

1978-1984	Assistant Professor, School of Business, University of Montreal
1984-1999	Associate Professor, School of Business, University of Montreal
1990-1991	Adjunct Professor of Quantitative Methods and Operations Management, Laurentian University, Sudbury, Ontario
1993	Visiting Professor of Project Management, Tianjin University, People's Republic of China(Summer).
1998-2001	Part-time Lecturer in Manufacturing Strategy, Masters in Manufacturing Management, McGill University.
1999-2000	Associate Professor, School of Business, Langston University, Langston, OK
2000-2001	Full Professor, School of Business, Langston University, Langston, OK.
2001-2006	Associate Professor, School of Business and Industry, Florida A&M University, Tallahassee, Florida.
2006-Pres.	Full Professor, School of Business and Industry, Florida A&M University, Tallahassee, Florida.

OTHER EXPERIENCE:

1983-1998	Management Consultant, ACEM, Montreal, Canada
1998-2001	Management Consultant, Hamilton Associates, Toronto, Canada
1999-2001	Associate Dean, School of Business, Langston University, Langston, OK.

PUBLICATIONS:

1. "Global Affiliation, Competition Intensity, Firm Size and the Adoption of Benchmark Quality Practices by Firms in Emerging Economies: The Case of Trinidad and Tobago", Global Review of Business and Economics Research, Vol. 10, no. 1, 2014.
2. "Firm Size, Global Affiliation, International Trade Exposure and the Adoption of Strategic Quality Practices by Firms in Emerging Economies: The Case of a

Petroleum Export Driven Emerging Economy". Submitted for publication, Indian Development Review: An International Journal of Development Economics.

3. "Managerial and Operational Challenges of Deploying Lean Thinking and Six-Sigma in Service Business". Submitted for publication, Global Review of Business and Economics Research.
4. "Strategic Knowledge and the Impact of Implemented Benchmark Quality Systems and Practices by Firms in Emerging Economies: The Case of Trinidad and Tobago". Expected completion, December 2011.
5. "Bermudez Biscuit Company: Quality Crackers and Crix", **(real-life case based on field research)**, anticipated release November, 2011.
6. "Process Control at Bermudez Biscuit Company", **(real-life case based on field research)**, anticipated release November, 2011.
7. "Interactions Between Product R&D and Process Technology", in The Strategy of Managing Innovation and Technology, Murray R. Millson and David Wilemon, editors, (Upper Saddle River, NJ: Prentice Hall), chapter 30, pages 399-406.
8. "Six-Sigma/Lean Six-Sigma in Health Care: A Comprehensive Literature Review and Critical Assessment", submitted for publication.
9. "Comparative Service Quality System Analysis Using Benchmark Six-Sigma Metrics: Evaluation of the Robustness of Service Industry Processes". International Journal of Lean Six Sigma (IJLSS), Vol. 1, Iss. 4, December, 2010.
10. "The Sigma Metric as a Measure of Process Taguchi Robustness: Some Evidence". Submitted for publication, Int. Journal of Quality and Reliability Management" (progressing through refereeing process.
11. "Taguchi Quality Specification Categories and the Computation of Six-Sigma Metrics: Analytical and Service Industry Anomalies and Their Managerial Implications". Submitted for publication, Int. Journal of Six-Sigma and Competitive Advantage (IJSSCA), (progressing through refereeing process).
12. "Empirical Verification of a Mathematical Model for Measuring the Required Reduction in Process Variation to Achieve Six-Sigma Quality Benchmarks". Int. Journal of Six Sigma and Competitive Advantage", Vol. 5, No. 4, (2009), pp. 359-379.
13. "Comparative Quality System Analysis and Evaluation Using the Six-Sigma Benchmark: Evidence from Two Manufacturing Industry Case Studies". Int. Journal of Six Sigma and Competitive Advantage (IJSSCA), Vol. 4, No. 4, 2008, pp 409-433.
14. "The Analysis and Evaluation of a Quality System Using the Six-Sigma Benchmark: Evidence for the Robustness of Six-Sigma Processes". Int. Journal of Productivity and Quality Management, Vol. 4, No. 2, 2009, pp. 178-198.
15. "Development of a Model for Computing the Reduction in Process Variation to Achieve Six-Sigma Performance Benchmarks". Submitted for publication (progressing through refereeing process), Global Review of Business and Economic Research.

16. "Marketing Differentiation Synergies of High-Velocity Inventory Turns". Third Annual Global Academy of Business and Economic Research Conference Proceedings, Orlando, Florida, September 17-19, 2008.
17. "Marketing Differentiation Synergies of High-Velocity Inventory Turns". Global Review of Business and Economic Research, Vol. 5, No. 1, (2009), pp. 21-43.
18. "Supply Chain Responsiveness and the Inventory Illusion". Supply Chain Forum: An International Journal, Vol. 6, no. 1, 2005.
19. "Synergy, Tradeoff and the Dimensions of Supply Chain Responsiveness". International Journal of Applied Operations Management, Vol. 1, no. 1, 2005.
20. "The Implementation Challenges of Six-Sigma in Service Businesses". International Journal of Applied Quality Management, Vol. 2, no. 1, 2005.
21. "Dimensions of Global Operations Strategy in Service Businesses: A Value-Chain Based Analysis". International Journal of Applied Operations Management, Vol. 1, no. 1, 2005.
22. "The Dimensions and Drivers of Supply Chain Responsiveness". International Journal of Applied Operations Management (forthcoming).
23. "The Nature and Determinants of Global Platforms". International Journal of Business Studies, Vol. 10, No. 2, December, 2002, 20 pages.
24. "Six Sigma in Service Businesses: Barriers to Implementation and How to Overcome Them". Proceedings, 30th Annual Conference, Administrative Sciences Association of Canada (ASAC), May, 2002.
25. "The Global Strategies of Service Businesses". Proceedings, 30th Annual Conference, ASAC, May, 2002.
26. "The Management of Service Demand Using Elasticity: The Design of Multi-tiered Price Structures for Demand Management", Working Paper, School of Business, University of Montreal, March, 1997.
27. "Managing Service Demand and Supply Using Elasticity of Demand Information", Working Paper, School of Business, University of Montreal, October, 1996.
28. Operations Strategies for Competitive Advantage. Fort Worth, Texas: Harcourt Brace, (International Thompson Publications, 1994), 559 pages.
29. "Proposals for the Creation, Structuring and Operation of the Matthieu DaCosta Business Development Corporation", Working paper, School of Business, University of Montreal, October, 1993, 187 pages.
30. "Computing the Service Level in Contexts Where Lot Sizes Are Used", Working Paper, School of Business, University of Montreal, March, 1992.
31. "Demand and Lead Time Randomness and the Service Level Impact of Lot Sizes", Working Paper, School of Business, University of Montreal, March, 1992.
32. "Just-in-Time", Purchasing Management Association of Canada, 1985, 34 pages.
33. "MRP", Purchasing Management Association of Canada, 1985, 50 pages.
34. "Economic and Operational Factors in the Design of Refineries", Lecture Notes, Diploma in Petroleum Industry Management, School of Business, University of Montreal, November, 1987.

35. "MRP-II and the Strategic Position of Purchasing: Potential versus Reality", National Association of Purchasing and Materials Management, Conference Proceedings, University of Michigan, October 10-12, 1987.
36. "The Distribution of Stockouts During Lead Time", Administrative Sciences Association of Canada (ASAC) Conference Proceedings, June, 1987.
37. "Service Operations Management in Four Modes", Working Paper, School of Business, University of Montreal, 1982.
38. "Choosing Optimal Buffering Strategies in MRP", Journal of Operations and Production Management, Vol. 7, No.1, 1987.
39. "Service Strategy and the Service Level Impact of Lot Sizes in Dependent and Independent Demand Contexts", Administrative Sciences Association of Canada (ASAC) Conference Proceedings, June, 1986.
40. "A Simple and Robust Model for Computing the Service Level Impact of Lot Sizes in Dependent and Independent Demand Contexts", Journal of Operations and Production Management, Vol. 7, No.2, 1987.
41. "MRP and the Strategic Position of Purchasing: Potential versus Reality", Proceedings, National Association of Purchasing Managers, Purchasing Research Symposium, University of Michigan, October, 1987.
42. "The Choice of Optimal Buffering Strategies for Dealing with Uncertainty in Material Requirements Plans", Administrative Sciences Association of Canada (ASAC) Conference Proceedings, June, 1985.
43. "The Management of Public Service Operations", Ecole Nationale d'Administration Publique (ENAP), 1985, 47 pages.
44. "Production and Operations Management: Toward 2001," Chapter 14 in, Management in 2001, (Montreal, Canada: Chenetiere and Stanke, 1983), 21 pages.
45. "Characteristics and Requirements of Product and Process Technology and Their Implications for the Strategic Management of Innovation," ASAC Conference Proceedings-Production and Operations Management , Vol. 41, Part 7, June, 1983.
46. "How to Achieve Factory Focus,", ASAC Conference Proceedings-Production and Operations Management, Vol. 3, Part 7, 1983.
47. "MRP May not Be Right for You: At Least not Yet," Production and Operations Management, Vol. 24, no. 3, September, 1983.
48. "Comparative Behavior of Statistical Inventory Control and Materials Requirement Planning System Under Varying Industrial Conditions: Presentation and Evaluation of a Model," International Journal of Operations and Production Management, Vol. 3, no. 2, September, 1983.
49. "Products and Processes: What Should Be the Firm's Innovation Strategy?" Revue Francaise de Gestion, No. 41, July/August, 1983.
50. "Reussir la Focalisation du Systeme de Production," Revue Gestion, Vol. 7, no. 4, November, 1982,
51. "Research in Production and Operations Management: The Case of Quebec," HEC-Paris/HEC-Montreal Marketing and Production Conference, 1981, 17 pages.

52. "Integrating Product and Process Technology with Corporate Strategy," Working Paper 82-19, School of Business Administration, University of Montreal, 37 pages.
53. "Production and Operations Management: Towards 2001," Working Paper 81-06-16, School of Business Administration, University of Montreal, 1981, 17 pages.
54. "The Development of Production and Operations Management: A Historical Perspective," Working Paper, School of Business Administration, University of Montreal, 1978, 39 Pages.

PUBLICATIONS IN PROGRESS:

1. "Six Sigma in Health Care Services: A Comprehensive Literature Review and Critical Assessment".
2. "Comparative Quality System Analysis and Evaluation Using the Six-Sigma Benchmark: A Comparison of Manufacturing and Service Industries Cases". Expected completion date: November, 2010.
3. "Operating Synergies of High-Velocity Inventory Turns". Submitted for publication- going through refereeing process.
4. "Strategic Synergies of High-Velocity Inventory Turns". Expected completion date: December, 2010.
5. The Measurement Problem of Six-Sigma in Service Businesses. Expected completion date: October, 2010.
6. A Comparative Analysis of the Similarities and Differences between the TQM and Six-Sigma Paradigms. Expected completion date: December, 2010.

MAJOR CONFERENCES/PRESENTATIONS (Partial List):

1. "Total Quality Practices of Firms in Emerging Economies: The Case of Trinidad and Tobago", GABER Conference, Orlando/Florida, May 22, 2014.
2. "Marketing Differentiation Synergies of High-Velocity Inventory Turns". Third Annual Global Academy of Business and Economic Research, Orlando, Florida, September 17-19, 2008.
3. "Six Sigma in Service Businesses: Barriers to Implementation and How to Overcome Them". ASAC, 30th Annual Conference, May, 2002.
4. "The Global Strategies of Service Businesses". ASAC, 30th Annual Conference, May, 2002.
5. Clarkson University, Potsdam, New York, Masters in Engineering and Manufacturing Management Program. Lecture: Strategic Management of the Supply Chain, June, 1998.
6. American Institute of Industrial Engineers (AIIE). Strategic Management of the Supply Chain. One-day workshop conducted for members of AIIE, Rochester, New York chapter, March 18, 1998.
7. "Creating Superior Value through Strategic Supply Chain Management". American Institute of Industrial Engineers, Annual Performance Improvement Conference, Rochester, New York, March 17, 1998.

8. "Globalization, Competition and the Management of Public Services", Montreal Urban Transport Commission, January, 1994. (Encore of November, 1993 presentation).
9. "Globalization, Competition and the Management of Public Services", Montreal Urban Transport Commission, November, 1993.
10. "Time-based Competition and Its Implications for Purchasing and Supply Management". Purchasing Management Association of Canada, Annual Conference, June, 1992.
11. "Time-based Competition and Purchasing and Supply Management in the Public Sector". Government of Ontario Purchasing Council, January, 1992.
12. "Crisis in World Class Manufacturing in Canada". Presentation to Management Team, Formica Canada, September, 1990.
13. "Why MRP-II Implementations Fail", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, April, 1990.
14. "How to Create the Continuously Improving Organization", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, March, 1990.
15. "Crisis in World Class Manufacturing in Canada", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, February, 1990.
16. "New Horizons in Logistics and Materials Management", Department of National Defense of Canada, May, 1989.
17. "Just-in-Time", One-Day Seminar, Purchasing Management Association of Canada, May, 1989.
18. "MRP-II, JIT and TQM: Beyond the Slogans", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Annual Conference, March, 1989.
19. "Management and World Class Manufacturing in Canada", Faculty Conference, School of Business Administration, University of Montreal, April, 1989.
20. "World Class Manufacturing: The Bedrock Concepts", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, April, 1988.
21. "MRP and the Strategic Position of Purchasing: Potential versus Reality", National Association of Purchasing Managers, Purchasing Research Symposium, University of Michigan, October, 1987.
22. "From the Conception of Advanced Production Technologies to Their Successful Exploitation and Management: The Contribution of the Manufacturing Strategy Framework", CQIP Conference, September, 1986.

PUBLICATIONS (CASES):

1. Bermudez Biscuit Company (BBC): Quality Crackers and Crix, 2011, 60 pages.
2. Process Control at Bermudez Biscuit Company, 2011, 51 pages.
3. Aluminum Corporation International (ACI). 2007, 3 pages.

4. European Mass Transit, Incorporated (EMTI), 2007, 6 pages.
5. International Aerospace, Inc. (IAI), 2007, 4pages.
6. New Technology Corporation (NTC). 2006, 8 pages.
7. Ontario Copper Products. 2009, 10 pages.
8. Plastic Containers, Inc., 2007, 3 pages.
9. Advanced Pharmaceuticals, Inc. (API). 2007, 8 pages
10. Global Pharmaceuticals Corporation (GPC). 2007, 13 pages.
11. Outdoor Sports, Inc., 2007, 5 pages.
12. Sports Equipment Manufacturing (SEM). 2007, 9 pages.
13. North American Paper Products (NAPP). 2007, 8 pages.

OTHER RESEARCH ACTIVITIES:

2011- Member of the Board of Editors, International Journal of Six-Sigma and Competitive Advantage.

CONSULTING ENGAGEMENTS (Partial list):

1. Postfax, Montreal, Canada. Consultant to top management on the implementation of TQM, JIT and MRP-II, 1999-2000.
2. Matthieu DaCosta Business Development Corporation. Consultant for the development of a five-year strategic plan, September, 1998.
3. Government of Quebec. Consultant to conduct feasibility study for the establishment of a business development fund to foster entrepreneurship in disadvantaged, immigrant communities, 1993.
4. Novartis, Canada. Consulting mandate to develop proposals for managing business planning for achieving flexibility and market responsiveness superiority in an MRP-II environment. Consulting report, 1996, 68 pages.
5. Novartis, Canada. Develop and conduct training sessions to implement proposals for managing business planning for achieving flexibility and market responsiveness superiority in an MRP-II environment,1996.

EXPERIENCE IN MANAGEMENT TRAINING, COURSE DEVELOPMENT AND SUPPORTING PEDAGOGICAL MATERIAL:

1980-1999 Development and delivery of seminars and training programs, University of Montreal Management Institute, ACEM and Hamilton Associates, in the following areas;

1. Materials and Inventory Management, Lean Inventory Systems
2. Material Requirements Planning
3. Management of the Master Production Schedule
4. Production Management for Top Managers
5. Manufacturing and Operations Strategy
6. Just-in-Time and Pull Systems
7. MRP-II
8. Structuring and Managing the Bill of Materials

9. Strategic Management of the Supply Chain

1980-Present Course Development work;

Bachelors level (third and final years):

1. Management of Service Operations
2. Manufacturing and Operations Strategy
3. Managing International Operations
4. Total Quality Management
5. Business Policy and Strategy
6. Human Behavior in Organizations
7. Entrepreneurship
8. Business Research Methods
9. Principles of Management

Masters Level (first and final year):

1. Production and Operations Management
2. Production and Inventory Planning and Control
3. Manufacturing Strategy for Engineers (McGill University)
4. Manufacturing and Operations Strategy
5. Management of Service Operations
6. Managing the Production Function
7. Managing Operations in a Global Context
8. Fundamental Engineering Concepts
9. Project Management
10. Global Logistics/Supply Chain Management I
11. Global Logistics/Supply Chain Management II
12. Total Quality Strategy and Six-Sigma
13. Management Engineering II

PhD Level (second year):

1. World Class Manufacturing
2. Seminars in Production/Operations Management
3. Development of the basic philosophy, orientation, general content and broad course outlines

Development of Pedagogical Material: PowerPoint Slides to support classroom teaching:

1. Human Behavior in Organizations; 350+ slides, Langston University, 1999.
2. Business Policy and Strategy; 300+ slides, Langston University, 1999-2001.
3. Business Research Methods; 150+ slides, Langston University, 1999-2001.
4. Global Logistics I; 550+slides, FAMU-SBI, 2001-2005
5. Supply Chain Management; 270+ slides, Hamilton Associates, 1999-2000.
6. Lean Inventories; 300+ slides, Hamilton Associates, 1999-2000.

7. Fundamental Engineering Concepts; 400+ slides, FAMU-SBI, 2001-2003.
8. Total Quality Strategy and Six Sigma; 400+ slides, FAMU-SBI, 2001-2005.
9. Management Engineering II; 200+ slides, FAMU-SBI, 2004-2005.
10. Production and Operations Management; 500+ slides, FAMU-SBI, 2007.

WRITTEN OUPUT FOR INTRAMURAL DISSEMINATION:

1. Proposals for Structuring the Core Curriculum at Langston University, School of Business, October 1999. 8 pages.
2. Proposals for the Creation of a Center for Entrepreneurial Studies and Research at Langston University, School of Business, November, 2000, 40 pages.
3. Report of the External Evaluator, Septennial evaluation of the Bachelor of Commerce program, Laurentian University, Algoma University and Universite de Hearst.

ON GOING RESEARCH INTERESTS:

1. Six-Sigma Strategies in Service Businesses
2. Lean Six-Sigma
3. Six-Sigma/Lean Six-Sigma in Healthcare industries
4. Strategic Management of the Supply Chain

REFERENCES: Available upon request

Curriculum Vitae

for

A. Dennis Ridley, Ph.D.

RESUMÉ

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Tallahassee FL 32312

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Fax (850)599-3533 or 668-5937

EDUCATION

1979-1982: Clemson University, Doctor of Philosophy
Major: Engineering Management
Dissertation: Spectral Analysis of the Electrical Power Market

1977: University of the West Indies (Trinidad), Master of Science
Major: Electrical Engineering--Power Systems Analysis
Thesis: Computer Optimized Economic Load Dispatch

1969: Middlesex University (England),
Higher National Diploma
Major: Electrical and Electronic Engineering

Computer languages: Fortran, Visual Basic.net
Competence: Expert developer of commercial professional software.

RESEARCH INTEREST:

Antithetic spectral time series analysis for biomedical data analysis, information feed forward process control, and forecasting. Global logistics expert, simulation& artificial intelligence systems.

HONORS AND ACTIVITIES

Visiting Professorships

Fall 1997, 2004, 2011 -Supercomputer Computations Research Institute, Florida State University.

Honors:

2006: Harvard University Business School Certificate: *The Art & Craft of Discussion leadership.*
2005: US Patent 6897773: Computer-powered wire(less) ultra-intelligent real-time monitor.
2004: Fulbright Senior Specialist Roster. Award: Create new course & dept. in Kharkov Univ. Ukraine.
2003: Inventor of Best Technology (computer-powered, ultra-intelligent, real-time, wireless heart monitor) presented by Florida A&M University students at Florida Int.
Univ.-Howard J. Leonhardt New Venture Challenge business plan competition.
1996: Tallahassee Democrat and Volunteer Big Bend - Volunteers of the year award.
1996: State University System of Florida teaching incentive program award.
1981: Omicron Delta Epsilon--graduate member(Honor Society in Economics)
1980: Omega Rho--member (International Honor Society)
1980: Organization of American States--Fellowship
1977: International Atomic Energy Agency --Fellowship
1976: Jamaica Institution of Engineers--member
1974: Jamaica Public Service Company--Scholarship
1965: Jamaica Industrial Government--Scholarship

Membership of professional / research/ civic organizations now or in the past:
Institute for Operations Research and the Management Sciences (INFORMS)
The International Institute of Forecasters
Institute of Business Forecasting
Production and Operations Management Society
American Statistical Association
Faculty associate - Supercomputer Computations Research Institute (FSU)
Economic Club of Florida
$\mathcal{E}^3$ - Excellence in education for Everyone (founding member - school choice organization)
Partners in Excellence (Leon County Schools)
Golden Eagle Country Club
Tallahassee Chamber of Commerce

PUBLICATIONS

Journals

Ridley, A. D., and Collins, J. A suggested evaluation metric instrument for faculty members at colleges and universities, *International Journal of Education Research*, forthcoming.

Ridley, A.D., and Ngnepieba, P. "Antithetic time series analysis and the CompanyX data," *Journal of the Royal Statistical Society,* A, 177(1), 2014, pp. 83-94.

Ridley, A. D. and Ngnepieba, P., "The Impact of Variance on Combining Antithetic Time Series," *Journal of Management and Engineering Integration*, 2014, pp.9-14.

Ridley, A.D., Ngnepieba, P., and Duke, D. "Parameter Optimization for Combining Lognormal Antithetic Time Series," *European Journal of Mathematical Sciences,* 2(2), 2013, pp. 235-245.

Ngnepieba, P., and Ridley, A. D. "Inverse correlated gamma variables," *Journal of Management and Engineering Integration*, 4(2), 2011, pp. 77-82.

Ridley, A.D. Desensitizing the forecast origin in: Process Control: Problems, Techniques and Applications, Editor: Samuel P. Werther, ISBN 978-1-6-61209-567-7, Nova Science, Publishers, Inc., 2011, ch 8, pp. Cross referenced in Journal of Current Issues in Finance, Business and Economics.

Ridley, A.D. and Ngnepieba, P. "The Multivariate Moving Window Spectral Method," Computers & Industrial Engineering, 56(1), 2009, pp11-18.

Ridley, A.D., Gist, W., Duke, D., Flagg, J. "The Predictive Ability and Usefulness of Accounting Operating Cash Flows," *American Journal of Finance and Accounting*, 1(2), 2008, pp. 169-193.

Ridley, A. D. and Duke, D. "Moving Window Spectral Model Based Statistical Process Control," *International Journal of Production Economics,* 105(2), February 2007, pp. 492-509.

Ridley, A.D. "The Univariate Moving Window Spectral Method," *Computers & Industrial Engineering*, 45(4), 2003, pp. 691-711.

Ridley, A.D. "Advances in Model Based Dual Chart Process Control." *International Journal of Industrial Engineering,* 8(1), 2001, pp. 45-51.

Ridley, A.D. and Llaugel, F. "Moving window spectral Neural Network Feedforward Process Control," *IEEE Trans on Eng. Mgt.*, 47(3), 2000, pp. 393-402.

Ridley, A.D. "Complementary Antithetic Weights for Lognormal Time Series Forecasting," *Computers and Operations Research*, 27(13),2000 , pp.1347-1349.

Ridley, A.D. "Optimal Antithetic Weights for Lognormal Time Series Forecasting," *Computers and Operations Research*, Vol. 26, No.3, 1999, pp. 189-209.

Ridley, A.D. "On the Sum of Weights: antithetic forecasting," *International Transactions in Operational Research,* Vol. 5, No. 4, 1998, pp.341-342.

Ridley, A.D. "Optimal Weights for Combining Antithetic Forecasts," *Computers & Industrial Engineering,* Vol. 32, No. 2, 1997, pp. 371-381.

Ridley, A.D. "Combining Global Antithetic Forecasts," *International Transactions in Operational Research,* Vol. 2, No. 4, 1995, pp 387-398

Ridley, A.D. "A Model-free Power Transformation to Homoscedasticity," *International Journal of Production Economics,* Vol. 36, No. 2, Oct,1994, pp191-202.

Ridley, A.D. "Counterbalancing Using Unequal Weights, "*Production Planning and Control,* Vol 5, No 2, March/April 1994, pp193-198.

Ridley, A.D. "Optimal Window Length for MWS Forecasting," *Technical Analysis of Stocks and Commodities,* Vol 12, No 3, March 1994, p70.

Ridley, A.D., Davis, B., Nkansa, P. "Revisiting the Five Versions of Hertzberg's Dual-Factor Theory in a Corporate Environment," *Florida A&M University Research Bulletin*, Vol. XXXV, 1993, pp. 31-45.

Ridley, A.D. "Variance Stabilization: A Direct yet Robust Method,"*Review of Business,* Vol. 15, No. 1, Summer/Fall, 1993, p.28.

Ridley, A.D. "Combining Negatively Correlated Forecasts," *Technical Analysis of Stocks and Commodities, May*, Vol. 11, No. 5, 1993, p.66.

Ridley, A.D. "Spectral Forecasting and the Financial Market," *Technical Analysis of Stocks and Commodities,* January 1993, Vol.11, No.1, p. 84.

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Ridley, A.D., Foree, M., Teralyn Seabrook, T, Wilson, K., "Crepe Vine's Live Case Study," *Refereed proceedings of the 18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012, pp.37-41.

Ridley, A.D., Corner, B., Glenn, J., Thomas, B., "Leola's Crab Shack Live Case Study," *Refereed proceedings of the 18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012. pp.104-108.

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Ridley, A.D. and Duke D. "Statistical Process Control: an mws model," *Refereed Proceedings of the Industrial,Engineering & Management Systems conference,* Cocoa Beach, Fl. March 13-15, 2000, pp.363-368.

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Ridley, A.D. "A Socio-economic study in motivation and it applicability to academic performance." *Proceedings of the Washington Consortium of Universities Research Forum,* February 28, Washington, D.C.

Ridley, A.D. "Color TV Industry Sales Time Series Analysis and Forecasting." *Refereed proceeding of the International Association of Business Forecasting Annual Conference.* December 8-10, New York, New York.

Ridley, A.D. "The Impact of Money Supply on Real and nominal GNP: a moving window spectral analysis." *Refereed proceedings of the Washington, D.C. Consortium of Universities Research Forum,* April 19, 1986, Washington D. C.

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Ridley, A.D. and Womer, N.K. "A Spectral Analysis of the Power Market in South Carolina," *Refereed Proceedings Seventeenth Annual Meeting, S.E. Chap, The Institute of Management Sciences,* Oct 1981,Vol. XI, p. 12.

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Presentations:

2015: Ridley, A D. and Collins, J., "A Professorial Evaluation Metric," *International Academy of Business and Public Administration Disciplines conference*, Orlando, FL, USA, January 2-5, 2015.

2014: Ridley, A. D. and Ngnepieba, P., "Exponentially derived antithetic random variates," *45th annual Decision Sciences conference*, Tampa, FL, USA, November 22-25, 2014. Forthcoming.

2014: Ridley, A D. and Collins, J., "A Professorial Evaluation Metric," *Decision Sciences annual conference*, Tampa, FL, USA, November 22-25, 2014.

2014: Ridley, A. D. and Ngnepieba, P., "The Impact of Variance on Combining Antithetic Time Series," *20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 24-26.

2012: Ridley, A. D. and Ngnepieba, P., "Optimal Parameters for Combining Antithetic Time Series," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012.

2012: Foree, M., Teralyn Seabrook, T, Wilson, K., Ridley, A.D., "Crepe Vine's Live Case Study," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28,2012.

2012: Corner, B., Glenn, J., Thomas, B., Ridley, A.D., "Leola's Crab Shack Live Case Study," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28,2012.

2012: Bryan, S., Miles, J., Mosley, M., Okon, A., Ridley, A.D., "Auntie Anne's Live Case Study," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28,2012.

2011: Ngnepieba, P., and Ridley, A. D. "Inverse correlated gamma variables," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Ridley, A. D., Sutterfield, J.S., Crawford, D., Price,T., Curry, Q., and Clark, B., "Local Business Live Case Analysis & Simulation: Ujama Embroidery and Design," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Brown, J., Noble., Ranish., Lones, L., Sharp, R., Curry, Q. and Ridley, A. D. "Rita's Italian Ice Live Cse Study, *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Abrams, T., Betts, C., Hill, R., Kirk, S., Curry, Q. and Ridley, A. D. "Cravings Truck Live Case Study," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Crafton, J., George, V., Wade, J., Curry, Q. and Ridley, A. D. "Fat Sandwhich Live Case Study," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2009: Paper presentation "Entrepreneurship curriculum at SBI," 13th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, Florida, USA, on July 10-13.

2009: Paper presentation "The Multivariate Moving Window Spectral Analysis," *1st Annual Florida A & M University Research Summit*, Tallahassee, FL, March 26-27.

2008: Paper presentation "From Theory to Practice: "A Strategy for University Campus-Wide Entrepreneurship Education and Community Transformation, *Global Academy of Business & Economic research conference*, Hilton, Walt Disney World Resort, Orlando, Florida, September 17 & 18, 2008.

2007: Paper presentation "Univariate vs. Multivariate Moving Window Spectral Analysis," 11th World Multi-Conference on Systems, Cybernetics and Informatics, Orlando, FL., USA, July 8-11, 2007.

2006: Paper presentation "Common cause Special cause vital signs charts," *Conference of the Portland International Center for the Management of Engineering and Technology (PICMET),* Istanbul, Turkey, July 8-13, 2006.

2005: Paper presentation "Random and Cyclical Data Elements in Quality Control," *20th European PV Solar Energy Conference & Exhibition*, Barcelona, Spain, June 6-10, 2005.

2003: Paper presentation "Single versus dual process control charts," *Production and Operations Management Conference: POMS 2003,* Savannah, Ga. April 4-7, 2003.

2002: Paper presentation "The Economic Benefit of Dual Statistical Process Control Charts," *11th International Conference on Management of Technology,* IAMOT 2002, Miami, Fl. March 1-14, 2002.

2001: Paper presentation "Pulse Oximetry: an mws model," *Industrial,Engineering & Management Systems conference,* Cocoa Beach, Fl. March 5-7, 2001.

2000: Seminar: "Moving Window Spectral Time Series Analysis & Forecasting: Theory and Applications," *Financial Mathematics Seminar, Dept. of Mathematics, Florida State University,* January 25, 2000.

2000: Paper presentation "Statistical Process Control: an mws model," Industrial, Engineering & Management Systems conference, Cocoa Beach, Fl. March 13-15, 2000.

1999: Paper presentation: "The Predictive Ability and Usefulness of Accounting Operating Cash Flows," South Eastern conference of the American Accounting Association, Atlanta Ga, April 8-10, 1999.

1999: Paper presentation: "Feedforward Process Control: an mws model," 10th annual Production & Operations Management Conference, March 20-23, 1999, Charleston, South Carolina.

1999: Seminar: An Antithetic Bias Filter for Time Series Models, Theory & Applications. Institute for Computational Research, Department of Physics, Florida A&M University, Tallahassee, Florida. March 16, 1999.

1999: Seminar: Antithetic Time Series Analysis & Forecasting, Theory & Applications. Supercomputer Computations Research Institute, Florida State University, Tallahassee, Florida. February 23, 1999.

1997: Paper presentation: "Antithetic Lognormal/Normal Random Variables," 21st International Conference for Computers and Industrial Engineering, , March 10-21, 1997, San Juan, Puerto Rico.

1995. Paper presentation: "Optimal Weights for Combining Antithetic Forecasts. Institute for Operations Research and Management Science, National meeting, Oct 29-Nov 1, 1995, New Orleans, Louisiana.

1995: Paper presentation: "Color television industry sales forecasting: an input to corporate planning." case study suggested by and funded through a 1987 grant from the RCA Corporation, *21st Annual Decision Sciences Institute Conference*, Nov 1995. Boston, Massachusetts.

1994: Paper presentation: "Combining Global Antithetic Forecasts," *Production & Operation Management conference*, Oct 8-11, 1994. Crystal City, Virginia.

1990: Paper presentation:"Power Transformations and Combining Global Antithetic Forecasts," *Operations Research Society/The Institute of Management Science joint National Meeting,* May 7-9, Las Vegas, Nevada.

1988: Paper presentation: "Counterbalancing--An Approach to Combining Forecasts." *International Association of Business Forecasting Annual Conference,* October 20-21, Bethesda, Maryland.

1987: Paper presentation: "Optimal Correction of Heteroscedasticity in Color TV Purchase Rates." *Operations Research Society of America/The Institute of Management Sciences, Joint National Meeting,* , October 25-28, 1987, St. Louis, Missouri.

1987: Paper presentation: "Temporal Relationships Between Real Gross National Product & Electricity. *Washington Consortium of Universities Research Forum,* February28, Washington, D.C.

1987: Paper presentation: "A Socio-economic study in motivation and it applicability to academic performance." *Washington Consortium of Universities Research Forum,* February 28, Washington, D.C.

1986: Paper presentation: "Color TV Industry Sales Time Series Analysis and Forecasting." *International Association of Business Forecasting Annual Conference.* December 8-10, New York, New York.

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1986: Paper presentation: "The Use of On Balance Volume in Forecasting security prices." *Washington, D.C. Consortium of Universities Research Forum,* April 19, 1986, Washington, D.C.

1985: Paper presentation:"The Univariate Moving Window-Spectral Algorithm." *20th International Atlantic Economic Conference,* Aug 29-Sept 1,1985. *Washington, D. C.*

1982: Paper presentation: "Spectral Analysis of the Electrical Power Market." *Operations Research Society of America/ The Institute of Management Sciences. Joint National Meeting*, October 25-27, 1982, *San Diego, California.*

1981: Paper presentation: "A Spectral Analysis of the Power Market in South Carolina," *Seventeenth Annual Meeting, S.E. Chapter, The Institute of Management Sciences,* Oct 1981, Atlanta, Georgia.

Working papers (Date first created, Title, Journal prepared for (bold=submitted)):

2014: **Separating Internal Biological effects from External Environmental effects** [American Scientist or Circulation]

2014: **Separating Fact from Artifact** [Royal Society Open Science]

2014: **General Theory of Antithetic Time Series** [Computational Statistics]

2014: **On the variance of antithetic time series** [Technometrics]

2014: Exponential antithetic random variates [JRSS-c]

2014: Antithetic power transformed random numbers in computer simulation [Decision Sciences, J. of Computational Physics, Physical Review Letters, PNAS]

2011: An Entrepreneurship Strategy for a Russian Curriculum

2011: Advances in antithetic times theory [International journal of forecasting]

2011: Developing an Entrepreneurial Mindset in Management Education [Entrepreneurship Research Journal]

2000: Common cause special cause biomedical charts (case + instructor's manual)[*Decision. Sc.*]

1999: False alarms in auditing seasonal cash flows (case + instructor's manual)[*Decision. Sc.*]

1998: Common cause special cause statistical process control (case + instructor's manual)[*Decision. Sc.*]

1998: Pro-active statistical process control (case + instructor's manual)[*Decision. Sc*]

1995: Counterbalancing is enhanced by variable weights. [*Decision. Sc.*]

1994: Education is worth a try. [*NER*]

1990: Power transformations and combining global antithetic forecasts. [*JOF*]

1988: MWS color TV sales forecasting [*JMR*].

1986: Color TV industry sales time series analysis and forecasting[*JOBF*].

PROFESSIONAL AND ACADEMIC EXPERIENCE

Academic experience:

1987: Professor of Global Logistics, Production/Operations Management, Management Science, Operations Research & Statistics.
School of Business & Industry,
Florida A&M University

Courses taught:

Spring 2015 – Management Science.

Fall 2014 – Management Science.
Summer 2014 – Production Management, Management Science.
Spring 2014 – Management Science.

Fall 2013 – Management Science.
Summer 2013 – Production Management, Supply Chain Management I.
Spring 2012 – Management Science.

Fall 2012 – Management Science.
Summer 2012 – Statistics.
Spring 2012 – Supply Chain Management II, Management Science.

Fall 2011-Research Sabbatical-Department of Scientific Computing, Florida State Univ.
Summer 2011 - Management Science.
Spring 2011 – Supply Chain Management II, Management Science.

Fall 2010 – Global logistics II, Management Science.
Summer 2010 - Management Science.
Spring 2010 – Global logistics II, Management Science.

Fall 2009 – Global logistics II, Management Science.
Summer 2009 - Management Science.
Spring 2009 - Management Science, Production/Operations Mgmt.

Fall 2008 - Management Science, Production/Operations Mgmt.
Summer 2008 - Management Science.
Spring 2008 - Management Science, Production/Operations Mgmt.

Fall 2007 - Management Science, Production/Operations Mgmt.
Summer 2007- Management Science, Graduate Production/Operations Mgmt.
Managing Operations–Ghana Inst. for Management & Public Admin. (MBA program).
Spring 2007- Management Science.

Fall 2006 - Management Science, Management engineering II

Summer 2006- Management Science, Production/Operations Mgmt.
Spring 2006- Global logistics II, Production/Operations Mgmt.

Fall 2005-Global logistics I, Production/Operations Mgmt.
Summer 2005- Management Engineering I, Production/Operations Mgmt.
Spring 2005- Global logistics II, Production/Operations Mgmt.

Fall 2004-Research Sabbatical-School of Computational Science, Florida State Univ.
Summer 2004-Logistics, Kharkov University, Ukraine.
Summer 2004-Production/Operations Mgmt, Management Science.
Spring 2004-Production/Operations Mgmt, Management Science.

Fall 2003-Production/Operations Mgmt, Management Science.
Summer 2003-Production/Operations Mgmt. Management Science.
Spring 2003-Production/Operations Mgmt, Management Science.

Fall 2002-Production/Operations Mgmt, Management Science.
Summer 2002-Production/Operations Mgmt. Management Science.
Spring 2002-Production/Operations Mgmt, Management Science.

Fall 2001-Production/Operations Mgmt, Management Science.
Summer 2001-Production/Operations Mgmt. Management Science.
Spring 2001-Production/Operations Mgmt, Management Science.

Fall 2000-Production/Operations Mgmt, Statistics.
Spring 2000-Production/Operations Mgmt, Statistics

Fall 1999-Production/Operations Mgmt, Statistics.
Summer 1999-Production/Operations Mgmt.
Spring 1999-Production/Operations Mgmt, Statistics

Fall 1998-Production/Operations Mgmt, Statistics.
Summer 1998-Production/Operations Mgmt.
Spring 1998-Production/Operations Mgmt.

Fall 1997-Research Sabbatical-Supercomputer Computations Res. Inst., Florida State Univ.
Summer 1997-Production/Operations Mgmt.
Spring 1997-Production/Operations Mgmt, Statistics

Fall 1996-Production/Operations Mgmt, Mgmt Science
Summer 1996-Mgmt Science
Spring 1996 - Production/Operations Mgmt

Fall 1995-Production/Operations Mgmt, Mgmt Science
Summer 1995-Mgmt Science

Spring 1995-Production/Operations Mgmt, Mgmt Science

Fall 1994--Production/Operations Mgmt., Mgmt. Science
Summer 1994-Mgmt Science
Spring 1994-Production/Operations Mgmt., Mgmt. Science

Fall 1993-Mgmt Science
Summer 1993-Mgmt Science
Spring 1993--Production/Operations Mgmt., Mgmt. Science

Fall 1992-Mgmt Science
Summer 1992-Mgmt Science
Spring 1992--Production/Operations Mgmt., Mgmt. Science

Fall 1991---Production/Operations Mgmt., Mgmt. Science
Summer 1991-Production/Ops Management (graduate),
Production Management/Operations,
Management Science.
Spring 1991--Production/Operations Mgmt., Mgmt. Science

Fall 1990---Production Mgmt., Mgmt. Science
Summer 1990-Production/Ops Management (graduate),
Global Logistics II (graduate),
Management Science.
Spring 1990--Production/Operations Mgmt., Mgmt. Science

Fall 1989---Production/Operations Mgmt., Mgmt. Science
Summer 1989-Production/Ops Management (graduate),
Management Science, Statistics.
Spring 1989-Global Logistics I (graduate),
Production/Operations Mgmt., Mgmt. Science.

Fall 1988---Global Logistics I (graduate), Production/Operations Management
Spring 1988-Management Science, Introduction to Business Systems.
Fall 1987---Mgmt. Science, Production/Operations Mgmt.

1984-1987: Assistant Professor of Information Systems and Analysis, Howard University

Courses taught:
Fall 1986---Computer Simulation and Information Systems, Prod. & Ops. Mgmt., Quantitative Analysis III (graduate POM)
Fall 1984 to Spring 1986--Production & Operations Management, Quantitative Analysis III (graduate, POM)

1982-1984: Assistant Professor of Decision Sciences George Mason University

Courses taught:
Summer 1984-Applied Statistical Analysis, Quantitative Methods in Managerial Analysis.
Spring 1984-Business Decision Models, Quant Methods in Managerial Analysis (graduate)
Fall 1983---Applied Statistical Analysis, Quant Methods in Managerial Analysis (graduate)
Summer 1983-Business Decision Models, Quant Methods in Managerial Analysis (graduate).
Spring 1983-Forecasting Methods in Management, Business Decision Models, Quantitative Methods in Managerial Analysis (graduate).
Fall 1982---Applied Statistical Analysis.
Summer 1982-Business Decision Models.

1980-1982: Lecturer--part-time faculty Clemson University
Courses taught:
Spring 1982-Statistical Methods (Department of Mathematical Sciences-MTHSC 301 Statistics with Calculus)
Fall 1980 to Fall 1981--Computer Utilization (MGT DEPT-IM 299)

1979-1980: Graduate Assistant, Industrial Management Department, Clemson University

1975-1976: Part-time teaching (night), Economics Department, University of the West Indies (Mona Campus, Jamaica)
Courses taught: Mathematics

Professional experience:

1976-1979: Manager--System Planning
Jamaica Public Service Co. (Jamaica)
--Electric Utility
--Feasibility studies related to planning new generating, transmission and distribution facilities for financing by Inter-American Development Bank. Other studies related to protection of and economic operation of the power system; including load flow, short circuit, stability and economic load dispatch. Liason with primary other utilities, government agencies, and consultants.

1979: Jamaica government participant in USAID sponsored (1 Month) discussions at United States Department of Energy and tour of prominent solar energy research and manufacturing organizations throughout the sun belt.

1977: Nuclear Power Planning Study for Government of Jamaica, conducted at International Atomic Energy (3 months) Agency, Vienna, Austria.

1975-1976: System Planning Engineer, Jamaica Public Service Co. (Jamaica).

1970-1975: Design Engineer, Jamaica Public Service Co. (Jamaica) Electric utility:
--Transmission and substation design
--Relay coordination

1965-1970: Student trainee, Alcan Industries, Ltd. (England)
--Aluminum fabrication plant

SERVICE TO PROFESSIONAL ORGANIZATIONS

2014: Session chairman for the *45th annual Decision Sciences conference*, Tampa, FL, USA, November 22-25, 2014.

2014: Referee. Research "Development of an integrated cost management system for small business 1169," *Proceedings of the 20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 23-26, 2014.

2014: Referee. Research "Layoffs as an Effective Restructuring 1141," *Proceedings of the 20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 23-26, 2014.

2013: Referee. Research "Effects of Engineering Student Grades on Graduation. Paper 1113," *Proceedings of the 20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 23-26, 2014.

2013: Referee. Research "Engineering Management Creating Individuals with a Mind for Business and a Heart for Engineering. Paper 1003," *Proceedings of the 19th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 24-27, 2013.

2012: Referee. Research "A Global Analysis of Sustainable Energy."*Proceedings of the 18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012.

2012: Referee. Research "The Effect of Religion upon Consumer Behavior."*Proceedings of the 18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012.

2012: Session chairman for the 18th International Conference on Industry, Engineering, & Management Systems, Cocoa Beach, Florida, USA, March 25-28, 2012.

2011: Referee. Research "Applications of Data Mining in Pharmaceutical Industry- Paper :166."*Proceedings of the 17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30, 2011.

2011: Referee. Research "The Orchestrator of History's Largest Ponzi Scheme - Paper #:662."*Proceedings of the 17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30, 2011.

2011: Session chairman for the 17th International Conference on Industry, Engineering, & Management Systems, Cocoa Beach, Florida, USA, March 28-30, 2011.

2009: Session chairman for the *13th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2009),* Orlando, Florida, USA, July 10-13, 2009.

2008: Session chairman for the *Global Academy of Business & Economic research conference*, Hilton, Walt Disney World Resort, Orlando, Florida, September 17 & 18, 2008.

2008: Referee. Research "Interpreting the out-of-control signals of the MEMWA control chart." *International Journal of Production Economics.*

2006: Referee. Research "A Hierarchy of Adaptive x-bar Control Charts." *International Journal of Production Economics.*

2006: Session chairman for the *Conference of the Portland International Center for the Management of Engineering and Technology (PICMET),* Istanbul, Turkey, July 8-13.

2003: MootCorp Fellow - University of Texas (Austin).

2003: Chairman for "Quality Management and Six Sigma Session Sa-3," at the Production and Operations Management Conference: POMS 2003, Savannah, Ga. April 4-7, 2003.

2003: Inventor of Best Technology presented by Florida A&M University students at Florida International University - Howard J. Leonhart New Venture Challenge, Clark Atlanta University - Kauffman foundation, and University of Texas (Austin) - Kauffman foundation business plan competitions.

2003: Referee. Research " Lagrangian Relaxation and Column Generation Algorithm for Stochastic Unit Commitment Problem." *Computers & Operations Research.*

2002: Referee. Research "Testing Process Index Cp Based on Multiple Samples." *International Journal of Industrial Engineering.*

2001: Referee. Research "A Proposal for a Solution to the Optimal Power Flow Problem." *Computers and Operations Research*, Pergamon.

2000: Referee. Research paper "Multi-level decomposition approach for design of power transmission systems," *Computers and Operations Research*, Pergamon.

1999: Session chairman for the 10th annual Production & Operations Management Conference, March 20-23, Charleston, South Carolina.

1998: Referee. Research paper (#98S-16-3)- "International Logistics Operations of MNCs." *Review of Business*, Business Research Inst. St. John's Univ., Jamaica, NY.

1997: Referee. Research paper (#97F-6-3)- "Operational Competitive Requirements for the 21st Century." *Review of Business*, Business Research Inst. St. John's Univ., Jamaica, NY.

1997: Referee. Research papers submitted to session: "Computer Supported Collaborative Work," *6th, Industrial Engineering Research Conference*, May 17-18, 1997, Miami Beach, FL.

1995: Referee. Research paper #95/141 "Forecasting using autocorrelated errors and multicollinear predictor variables." *Computers and Industrial Engineering.*

1994: Member of Middle States Association visitation team to accredit Seton Hall University.

1993: Referee. Research paper #1394- "VARMAX-modeling of blast furnace process variable." *European Journal of Operational Research.*

1992: Business School expert member of Middle States Association visitation team to accredit State University of New York at Brockport. March 8-11.

1990: Referee. Research paper (#90S-37)- "Forecasting Electric and Power data: A comparison of methods." *Review of Business*, Business Research Inst. St. John's Univ., Jamaica, NY.

1990: Chairman for "Forecasting Session MC2" *Joint ORSA/TIMS National Conference.* May 7-9, Las Vegas, NV.

1989: Referee (89F-10-3). Research paper-"Effective Management of the Older Worker: A Management Issue for the 1990s" (89F-10). *Review of Business*, Business Research Institute. St. John's University, Jamaica, NY.

1988: Business School expert member of Middle States Association visitation team to accredit Rutgers University. April 10-14.

1987: Chairman for "Forecasting Session TC03," Joint ORSA/TIMS National Conference. October 25-28. St. Louis, MO.

COMMUNITY SERVICE

2103: Attend accreditation conference, September 26-28, Tunica, Ms.
2013: Judge – E-stem business plan competition.
2000-2011: Faculty advisor – University entrepreneurs club
1993-94: Member of Leon County Schools, Fl, committee on PlanB of the gifted.
1987: Science fair judge, Killearn Lakes Elementary School, Tallahassee, Fl.
1987: Science fair judge, Maclay Middle School, Tallahassee Fl.
1989-91: Member-Board of Directors of the American Red Cross (Tallahassee FL)

1987: GMAT preparation help seminar, Howard University (86,87).
1986: Science fair judge, Thomas Jefferson High School for Science & Technology, Virginia.
1978: Lecture on project management. USAID/Jamaica ministry of finance seminar.
1977: Lecture on feasibility studies relating to generation expansion planning, The Jamaica Institute of Engineers.
1977: Lecture on economic conductor sizing. Organization of American States/University of the West Indies/JPS seminar.

CONSULTING

1988: (Summer 3 Months) Technical services & Process control consultant-Great Northern Nekoosa Packaging Corp. Special project: Design of mill wide process information system to include data element relationship catalog, data acquisition & computer automation, data analysis and correlation & information feed forward system.

1986: (Summer 3 Months) Operations Research Analyst-RCA Corp. Special Project: seminar presentations and implementation of color television industry sales time series analysis & forecasting methodology.

1986 & 1987: 2 Speaking Engagements: Presentation on statistical forecasting. American Gas Association annual seminars.

FAMU Advisory Reviews for Academic Program Proposals

The Dean of the School of Business and Industry has reviewed the proposal for the Bachelor of Science in Supply Chain Management and recommends it for consideration.

DocuSigned by:
Shawnta Friday-Stroud
710AAE8467F54C6...

4/26/2016

Dean or Chair/Director of the academic unit — Date

The College Curriculum Committee of the College/School in which the program resides has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

Saundra Drumming
31E79110BB39469...

4/26/2016

Chair, College Curriculum Committee — Date

The University Program Authorization Review Committee (UPARC) has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

7E6E7C4C4C304E5...

4/25/2016

Chair, UPARC — Date

The Curriculum Committee of the Faculty Senate has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by:
Neil James
A6239C0B8B3E429...

4/26/2016

Chair, Curriculum Committee of Faculty Senate — Date

The Faculty Senate has reviewed the proposal and affirms that it is consistent with the policies of the full body and recommends approval.

Bettye Grable
2D17286CD79F4F8...

4/26/2016

President, Faculty Senate — Date

Graduate Programs Only:

The Chair of the Graduate Council has reviewed the proposal and affirms that it is consistent with the policies of that Council.

Chair, Graduate Council

4-29-16

Signature of Provost and Vice President for Academic Affairs — **Date**

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Date: May 11, 2016
Agenda Item: VII-C

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: MS Supply Chain Management (CIP Code 52.0203)

Rationale: The School of Business and Industry (SBI) is proposing to offer a Master of Science degree in Supply Chain Management, designated as STEM in the Board of Governors Areas of Strategic Emphasis, beginning Fall 2016. The School currently offers a graduate concentration in Supply Chain Management as part of its Master of Business Administration. The goal of the School is to expand the existing concentration and make it a stand-alone master's degree totaling 30 hours to include a thesis project. FAMU's School of Business and Industry has developed strength in its current Supply Chain graduate concentration, which has received national recognition as SBI students have won the national supply chain case competition. The publicity generated by this win has caught the attention of industry officials and their keen interest in hiring our graduates. Feedback from industry representatives suggests that there is significant interest in our graduates and the need to offer Supply Chain Management as an advanced degree.

Nationally, there is a growing trend for Supply Chain graduates with an advanced degree, particularly for African Americans, FAMU's primary constituent. Employment outlook for this field is also favorable. Considering the national demand for this type of degree and employment outlook, a master's degree in Supply Chain Management can position FAMU graduates with the skills needed to advance to management roles increasing opportunities for financial success in this industry. Graduates of Supply Chain Management may also become involved in professional organizations, such as the Institute for Supply Management and Council of Supply Chain Management Professionals, which will further extend their career opportunities and professional growth. Because of FAMU's history and success in graduating quality students from the School of Business and Industry and the corporate partnerships that have already been forged, this type of advanced degree would serve the students of FAMU very well and contribute to the economic workforce both nationally and in the State of Florida.

The estimated projections and program costs for years one to five are as follows:

Implementation Timeframe	Projected Enrollment (From Table 1)		Projected Program Costs (From Table 2)				
	HC	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
Year 1	15	9.84	$34,281	$337,326	$0	$0	$337,326
Year 2	20	13.59					
Year 3	25	17.34					
Year 4	30	21.09					
Year 5	35	24.84	$14,486	$359,830	$0	$0	$359,830

Attachment: FAMU MS Supply Chain Management Proposal

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve the MS Supply Chain (CIP Code 52.0203) in the School of Business and Industry, effective Fall 2016.

Board of Governors, State University System of Florida

Request to Offer a New Degree Program

(Please do not revise this proposal format without prior approval from Board staff)

Florida A & M University University Submitting Proposal	Fall 2016 Proposed Implementation Term
School of Business and Industry Name of College(s) or School(s)	Infor. Systems and Operations Mgmt. Name of Department(s)/ Division(s)
Supply Chain Management Academic Specialty or Field	MS in Supply Chain Management Complete Name of Degree
52.0203 Proposed CIP Code	

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees		Elmira Mangum President	5/2/2016 Date
Signature of Chair, Board of Trustees	Date	Vice President for Academic Affairs	4-29-16 Date

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1 in Appendix A. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2 in Appendix A. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	Projected Enrollment (From Table 1)	
	HC	FTE
Year 1	15	9.84
Year 2	20	13.59
Year 3	25	17.34
Year 4	30	21.09
Year 5	35	24.84

Projected Program Costs (From Table 2)				
E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
$34,281	$337,326	$0	$0	$337,326
$14,486	$359,830	$0	$0	$359,830

Note: This outline and the questions pertaining to each section must be reproduced within the body of the proposal to ensure that all sections have been satisfactorily addressed. Tables 1 through 4 are to be included as Appendix A and not reproduced within the body of the proposals because this often causes errors in the automatic calculations.

INTRODUCTION

I. Program Description and Relationship to System-Level Goals

A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.

The School of Business and Industry at FAMU currently offers a graduate concentration in Supply Chain Management as part of its Master of Business Administration. The goal of the School is to expand the existing concentration and make it a stand-alone degree totaling 30 hours to include a thesis project. The proposed program is aimed at providing well-prepared, analytically competent graduates who will be able to rise to the increasing demands of the growing field of Supply Chain Management. Graduates in this field will oversee many of the required business processes in various corporations and will need a greater level of skills and education to respond to the increased complexities associated with logistics and supply chain networks. A master's degree in Supply Chain Management can prepare individuals with this knowledge base and also the higher order skills needed to effectively integrate supply chain management into effective business processes. Based upon SBI's experience, the African-American population has been well served in the SCM field. Those MBA graduates of SBI with an SCM background have been in wide demand from several companies, and some have received 2-3 offers before graduation. One of SBI's corporate partners, an international company, has hired a number of SCM students from SBI, and wishes to hire even more. Therefore, it is anticipated that this degree will be attractive to our native students as well as baccalaureate graduates coming from other institutions.

B. Please provide the date when the pre-proposal was presented to CAVP (Council of Academic Vice Presidents) Academic Program Coordination review group. Identify any concerns that the CAVP review group raised with the pre-proposed program and provide a brief narrative explaining how each of these concerns has been or is being addressed.

The pre-proposal for the MSSCM was presented to the CAVP review group on Sept. 25, 2015, and was approved without any concern(s.)

C. If this is a doctoral level program please include the external consultant's report at the end of the proposal as Appendix D. Please provide a few highlights from the report and describe ways in which the report affected the approval process at the university.

NA

D. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which specific goals the program will directly support and which goals the program will indirectly support (see link to the SUS Strategic Plan on the resource page for new program proposal).

The proposed MS in Supply Chain Management will support the SUS Planning Goals as follows: A) Strengthen Quality & Reputation of Academic Programs and Universities - The MSSCM will make available a new, high-demand, quality degree to all qualifying students in the state university system while at the same time increasing the number of graduate degrees offered by FAMU. B) Strengthen Quality & Recognition of Commitment to Community and Business – One of the objectives of the executive branch of State

government is to attract corporations and businesses to Florida. This policy has proven successful, and is creating the need for professionals in the SCM area. Thus, the new program will help to provide SCM professionals to fill positions in workforce; C) Strengthen Quality & Reputation of Scholarship, Research, and Innovation Building world-class academic programs and research capacity - SBI has for a number of years had a top-notch program in SCM. SBI graduates are sought by a number of companies. The proposed MSSCM would make an already high-quality degree program available for growth into a world-class academic program with the capacity for applied research; D) Strengthen Quality & Recognition of Commitment to Community and Business Engagement Meeting community needs and fulfilling unique institutional responsibilities - The proposed MSSCM would strengthen community and business engagement by affording students with an educational opportunity in a growing, professional career, and in doing so, would enable SBI/FAMU to satisfy its institutional responsibilities to both the community and to the businesses in the State; E) Increase the Number of Degrees Awarded within Programs of Strategic Emphasis - The proposed MSSCM would be a STEM degree, and would increase the number of degrees awarded within programs of strategic emphasis.

E. If the program is to be included in a category within the Programs of Strategic Emphasis as described in the SUS Strategic Plan, please indicate the category and the justification for inclusion.

The Programs of Strategic Emphasis Categories:

1. **Critical Workforce:**
   - **Education**
   - **Health**
   - **Gap Analysis**
2. **Economic Development:**
   - **Global Competitiveness**
3. **Science, Technology, Engineering, and Math (STEM)**

Please see the Programs of Strategic Emphasis (PSE) methodology for additional explanations on program inclusion criteria at the resource page for new program proposal.

The proposed program will be included in the STEM category among those programs of strategic emphasis under CIP code 52.0203 Logistics, Materials, and Supply Chain Management.

F. Identify any established or planned educational sites at which the program is expected to be offered and indicate whether it will be offered only at sites other than the main campus.

The proposed program will be offered only at the main campus.

INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY

II. Need and Demand

A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.

According to the Bureau of Labor Statistics, there are about 126,000 SCM professionals in the

US at the present time. The entry-level education for this career field is a BS, but the median salary for an MS is nearly $82,500. The career outlook for the Supply Chain Management field appears particularly favorable for the foreseeable future, and is expected to grow by approximately 22% to 155,000 by 2022. The growth rate is expected to exceed the average growth rate for other positions. Thus, SCM will provide an excellent opportunity for those who choose to pursue it. The number of master's degrees awarded in Supply Chain Management has steadily increased since 2011. Degree productivity nationally has seen an increase by 46% from 2011-2014 in the number of students graduating from these types of programs. At the same time, we are also seeing a great interest in African Americans, FAMU's primary constituent, seeking this degree as well. The number of master's degrees awarded to African Americans in Supply Chain Management increased by 38% from 2011-2014. Considering the national demand for this type of degree and employment outlook, a master's degree in Supply Chain Management can position FAMU graduates with the skills needed to advance to management roles increasing opportunities for financial success in this industry. Graduates of Supply Chain Management may also become involved in professional organizations, such as the Institute for Supply Management and Council of Supply Chain Management Professionals, which will further extend their career opportunities and professional growth. Because of FAMU's history and success in graduating quality students from the School of Business and Industry and the corporate partnerships that have already been forged, this type of advanced degree would serve the students of FAMU very well and contribute to the economic workforce both nationally and in the State of Florida.

B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.

Please see response II-A above for employment outlook in the supply chain management career field. Students will respond to academic programs that prepare them for successful careers in challenging fields. In addition, based upon SBI's experience, the African-American population has been well served in the SCM field. The demand for supply chain management professionals will exist at the State, national and international levels. In response to this increase in demand, degree productivity nationally has seen an increase in the number of master's degrees awarded overall in Supply Chain Management and also for African Americans, a primary constituent of FAMU. The number of master's degrees awarded in Supply Chain Management has steadily increased since 2011. Degree productivity nationally has seen an increase by 46% from 2011-2014 in the number of students graduating from these types of programs. At the same time, we are also seeing a great interest in African Americans. The number of master's degrees awarded to African Americans in Supply Chain Management increased by 38% from 2011-2014. Therefore, this type of program would serve the students of FAMU very well in that increasing numbers of African-American students are being employed. Those MBA graduates of SBI with an SCM background have been in wide demand from several companies, and some have received 2-3 offers before graduation. One of SBI's corporate partners, an international company, has hired a number of SCM students from SBI, and wishes to hire even more. Therefore, it is anticipated that this degree will be attractive to our native students as well as baccalaureate graduates coming from other institutions. Informal surveys conducted by SBI over the past few years have indicated 10-15 students each year who were interested in an SCM career. It is anticipated that the new program will grow from about 10 students initially to 30 students within the five-year planning horizon.

C. If substantially similar programs (generally at the four-digit CIP Code or 60 percent similar in

core courses), either private or public exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). In Appendix C, provide data that support the need for an additional program.

As of the present time, no graduate program in the SUS exists in CIP 52.0203, and consequently, no data are available for the state universities. However, members of the CAVP Academic Coordination Workgroup reviewed the program and deemed it is one they thought would be highly viable and attractive to students. The University of North Florida and Florida International University are in the process of developing a master's in Logistics and Supply Chain Management and have had their pre-proposals approved by the CAVP at its meeting in December 2015. Because no other institution in the SUS currently offers an MS/SCM, FAMU's School of Business and Industry is currently collaborating with the FAMU-FSU College of Engineering whereby students in the College of Engineering are afforded the opportunity to add the graduate concentration in Supply Chain Management as part of their existing degree. The agreement between SBI and FAMU-FSU College of Engineering was formalized with a memorandum of understanding in May 2012. Also, it is anticipated that collaborations with Florida Polytechnic University, University of North Florida, and University of West Florida may be possible to establish a feeder program for their students completing their baccalaureate programs in Supply Chain Management.

D. Use Table 1 in Appendix A (1-A for undergraduate and 1-B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 40 credit hours per year and graduate FTE will be calculated as 32 credit hours per year. Describe the rationale underlying enrollment projections. If students within the institution are expected to change majors to enroll in the proposed program at its inception, describe the shifts from disciplines that will likely occur.

The FTE calculations are based upon 32 credit hours per year. Enrollment projections are based upon the number of graduate students in SBI who indicate an interest in the SCM field. Growth includes these plus those students from other institutions who will be attracted to earn the degree at SBI. Those students having a BS or MS in an engineering discipline would easily have an adequate quantitative background to pursue an MS in SCM. Thus, some students are expected to come from the FAMU/FSU College of Engineering in accordance with the agreement between SBI and the FAMU/FSU College of Engineering after graduating to complete the MS Supply Chain Management degree. It should be noted that some are already coming to SBI to obtain the graduate concentration in SCM .

E. Indicate what steps will be taken to achieve a diverse student body in this program. If the proposed program substantially duplicates a program at FAMU or FIU, provide, (in consultation with the affected university), an analysis of how the program might have an impact upon that university's ability to attract students of races different from that which is predominant on their campus in the subject program. The university's Equal Opportunity Officer shall review this section of the proposal and then sign and date Appendix B to indicate that the analysis required by this subsection has been completed.

FAMU is an equal opportunity and equal access university and the MS degree in Supply Chain Management will uphold that mission. Strategic Initiative 4 in the SBI strategic plan requires that SBI "Expand Diversity and International Initiatives." Specifically, Goal 4.1 requires SBI to "Expand Diversity Initiatives." To achieve this goal, the proposed MSSCM program will be open to all qualified students, regardless of race, color, religion, creed, gender, national origin, disability, marital or veteran status, or any other legally protected

status. SBI through its corporate partnerships will seek to recruit highly qualified and diverse students.

III. Budget

A. Use Table 2 in Appendix A to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 in Appendix A to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)

Tables 2 and 3, Appendix A are appended to the end of this document. To summarize these tables, the beginning salary and benefits for the faculty to be engaged in the new MSSCM are $337,326 for the first year, and that for the fifth year will be $359,830. This increase reflects a 1.3% salary increase over the five year period. It is not anticipated that it will be necessary to redistribute E&G funds, or any other type of funds in order to implement this new program.

B. Please explain whether the university intends to operate the program through continuing education on a cost-recovery basis, seek approval for market tuition rate, or establish differentiated graduate-level tuition. Provide a rationale for doing so and a timeline for seeking Board of Governors' approval, if appropriate. Please include the expected rate of tuition that the university plans to charge for this program and use this amount when calculating cost entries in Table 2.

The tuition rate to be charged for the courses in this program is the standard, differentiated, graduate-level tuition rate of $405.67 per credit hour for in-state tuition, and $1,022.04 per credit hour for out-of-state tuition.

C. If other programs will be impacted by a reallocation of resources for the proposed program, identify the impacted programs and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).

It is not anticipated that there will be any impact on other programs, and consequently no requirement for the reallocation of any resources. The proposed program will not require any increase in faculty resources during the first five years as currently faculty are already teaching the required courses as part of their regular assignment and as part of the existing graduate concentration in Supply Chain Management.

D. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).

Not applicable.

E. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.

The School of Business and Industry has strong working relationships with a number of corporate partners who are very interested in SBI Supply Chain graduates. Several corporate partners have already hired SBI graduates with Supply Chain backgrounds, and wish to hire more. Informal discussions with these corporate partners indicate that they will support the program by providing internship opportunities, which will allow students to complete thesis projects of importance to the companies. It is also believed that it will be possible to arrange such opportunities with such Federal agencies as the Department of Defense.

IV. Projected Benefit of the Program to the University, Local Community, and State

Use information from Tables 1 and 2 in Appendix A, and the supporting narrative for "Need and Demand" to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.

According to the Bureau of Labor Statistics, the career outlook for the supply chain management field is outstanding for the foreseeable future, growing by nearly 30,000 in the next ten years, with a starting salary of about $82,000 for managers and above,, which will rival that of the engineering field. This view is supported by The Council of Supply Chain Management Professionals in 2011 reported that supply chain spending is growing faster than the overall economy and company executives recognizing the importance of Supply Chain Management, an attractive job market exists. *U.S. News and World Report* also reported that employment projections for supply chain management are favorable in its article titled *Online Supply Chain Master's Degree*. There appear to be few institutions in the country poised to meet this demand. The School of Business and Industry (SBI), however, is an exception to this in that it has been graduating well prepared supply chain management professionals for a number of years. It is in a perfect position to assume a larger role in satisfying the growing demand in this field. Further, SBI is prepared to do so with only a minimal expenditure of additional funds. Having such a program will lend prestige to SBI and to the University, as well as enabling the University to fulfill its classical responsibility of providing graduates to fill emerging career fields and increasing the number of graduates in a STEM field. In addition, the city, state and country will benefit from having qualified professionals to satisfy the increasing demand in this career field.

V. Access and Articulation – Bachelor's Degrees Only

A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a separate request to the Board of Governors for an exception along with notification of the program's approval. (See criteria in Board of Governors Regulation 6C-8.014)

Not applicable for Master of Science

B. List program prerequisites and provide assurance that they are the same as the approved

common prerequisites for other such degree programs within the SUS (see link to the Common Prerequisite Manual on the resource page for new program proposal). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as "limited access."

If the proposed prerequisites are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional "track" of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.

Not applicable for Master of Science

C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that Florida College System transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in Board of Governors Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.

Not applicable for Master of Science

D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see link to the Statewide Articulation Manual on the resource page for new program proposal). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.

Not applicable for Master of Science

INSTITUTIONAL READINESS

VI. Related Institutional Mission and Strength

A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan (see link to the SUS Strategic Plan on the resource page for new program proposal).

The mission statement of Florida A&M University dictates that the University develop and implement new degree programs based on University priorities that are consistent with the Florida Board of Governors established goals and distinctive missions. In concert with the mission statement, this proposal seeks to develop a new degree program, the Master of Science degree in Supply Chain Management that meet market and student demands, which is a strategic goal outlined in the University's strategic plan and a degree program

targeted in the State University System of Florida's strategic plan. Moreover, the MSSCM is consistent with the following SBI strategic initiatives: Initiative 1) Enhance the Educational Program Quality, Access, Recruitment, Enrollment, Retention, Progression, & Graduation at the Undergraduate and Graduate Levels; Initiative 2) Acquire and Retain Necessary Institutional Resources (Human, Physical, Financial, & Technological); Initiative 4: Expand Diversity and International Initiatives.

B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.

Florida A&M University is the leading producer of baccalaureate degrees awarded to African-American students in the SUS and one of the leading producers nationally. FAMU's School of Business and Industry also has a well-known reputation for producing African American graduates in the business world, based on its innovative business education model of "academic, professional development, and internship experiences. The Master of Science degree in Supply Chain Management will further enhance the University's institutional strength in the production of degrees awarded to African Americans by providing graduates with a sound educational background in Supply Chain to meet the workforce requirements for the State of Florida as well as the global workforce. This degree will also increase the number of STEM prepared graduates.

C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology in table format of the activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.

Response: The planning process for this degree included numerous activities and participants from the SBI faculty and administration, as well as the University administration. An approximate chronology of the planning process events is as follows:

Planning Process

Date	Participants	Planning Activity
Nov 2015	Drs. Kincey and Sutterfield	Consultation on proposal document
Nov 2015	UPARC and FAMU Provost	Approval of Feasibility Study
Oct 2015	Fred Towler and Dr. Sutterfield	Discussion of proposed SCM program
Sept 2015	SBI Dean, Drs. Davis, Nkansah & Sutterfield	Status report on feasibility study
Sept 2015	Drs. Kincey and Sutterfield	Consultation on feasibility document
Sept 2015	CAVP Conference	Presentation & approval of pre-proposal
Sept 2015	SBI Dean and Faculty	Progress report to faculty
Sept 2015	SBI Dean, Drs. Davis, Nkansah & Sutterfield	Status report on pre-proposal document before faculty meeting
Sept 2015	SBI Dean, Drs. Davis, Nkansah & Sutterfield	Discussion of details of pre-proposal document
Aug 2015	SBI Dean and faculty	Status report on progress
Aug 2015	Drs. Kincey and Sutterfield	Consultation on pre-proposal document
July 2015	SBI Dean and Dr. Sutterfield	Dr. S. assigned to prepare documents
Apr 2015	SBI Dean and faculty	Faculty approves MSSCM plan
Apr 2015	SBI Dean and faculty	Faculty presented with MSSCM plan
Mar 2015	SBI Dean and Curriculum Committee	Discuss program details and options
Dec 2014	SBI Dean and Administrators	Discuss new program possibilities

Events Leading to Implementation

Date	Implementation Activity
Apr 2015	Dr. Sutterfield: Special project with International Paper concerning production operations management
Mar 2015	Dr. Sutterfield: Two presentations on production operations management at 2015 IEMS Conference
Nov 2014	Dr. Cole: Presentation of SCM paper at Decision Sciences Institute
May 2014	Dr. Etienne: TQM paper and presentation at GABE
Mar 2014	Dr. Sutterfield: Presentation of SCM paper at 2014 IEMS Conference

VII. Program Quality Indicators - Reviews and Accreditation

Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.

The Accreditation Council for Business Schools and Programs (ACBSP) accredits Florida A&M University School of Business and Industry. ACBSP is recognized by the Council for Higher Education Accreditation (CHEA) to accredit business, accounting, and business-related programs at the Associate, Baccalaureate, Master's, and Doctoral degree levels worldwide. ACBSP's Spring 2013 accreditation visit resulted in no recommendations.

VIII. Curriculum

A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor's degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.

Learning outcomes for the proposed program will include all facets of the supply chain management enterprise. Developing a supply chain strategy to conform to the corporate competitive strategy; the supply chain logistical drivers, facilities, inventory and transportation; the cross functional drivers, information, sourcing and pricing; the coordination and adjustment of the logistical drivers and the cross functional drivers to ensure conformity of supply chain operation with the supply chain strategy. Other topics will include risk analysis, facilities planning, aggregate planning, and pricing. Throughout the course of study, the use of quantitative methods and mathematical modeling for supply chain management applications will be emphasized. The learning outcomes for an MSSCM are as follows:

The student will be able to …

1. Inter-relate the various functional areas in the supply chain management.
2. Apply supply chain management techniques in alignment with corporate strategies.
3. Utilize knowledge of supply chain functional drivers and metrics to develop a supply chain strategy.
4. Design an operational supply chain network.
5. Apply the analytical tools for supply chain analysis
6. Implement strategies to manage risk in the supply chain based on comprehensive data analysis.

B. Describe the admission standards and graduation requirements for the program.

Admission requirements to the program will include a 3.00 or better GPA in Business or Engineering. Students may also be admitted to the program under SBI's alternate admission criterion. Graduation from the program will require completion of 24 course hours with a thesis project consisting of six hours to conclude the program.

C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.

The total number of semester credit hours for the proposed program will be 30. The core courses are to be Production & Operations Management, Strategic Purchasing and Supply Management, Supply Chain Management I, Supply Chain Management II, Total Quality Management, Advanced Risk Management, and Advanced Management Science. The electives will be restricted to Successful Business Negotiations or Human Resources Management. The program will not contain any unrestricted electives. The program will conclude with a thesis project.

D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.

A typical sequence in within the courses for the program is shown in the following tables:

Year 1: Fall semester		
Course number	*Course title*	*Credit hours*
TRA 5722	Supply Chain Management I	3
MAN 5501	Production Operations Management	3
MAN 5533	Advanced Risk Management	3
	Total hours	9
	Cumulative hours	9

Year 1: Spring semester		
Course number	*Course title*	*Credit hours*
TRA 5723	Supply Chain Management II	3
MAR 5465	Strategic Purchasing and Supply Management	3
MAN 5XXX	Graduate Elective	3
	Total hours	9
	Cumulative hours	18

Year 1: Summer semester		
Course number	*Course title*	*Credit hours*
MAN 5549	Total Quality Management	3
MAN 5XXX	Graduate Elective	3
	Total semester hours	6
	Cumulative hours	24

Year 2: Fall semester		
Course number	*Course title*	*Credit hours*
MAN 5910	Graduate research for thesis	3

	Total semester hours	3
	Cumulative hours	27
Year 2: Spring semester		
Course number	*Course title*	*Credit hours*
MAN 5910	Graduate research for thesis	3
	Total semester hours	3
	Cumulative hours	30

D. Provide a one or two-sentence description of each required or elective course.

MAN5501 – Production Operations Management: A detailed study in all facets of production operations, beginning with the importance of strategy, including aggregate planning, thru MRP and capacity panning

MAN 5549 – Total Quality Management: A complete study in quality, with emphasis upon quality as a competitive strength and implementation of six-sigma

TRA 5722 – Supply Chain Management I: A comprehensive study in supply chain management; the relationship between corporate strategy and supply chain strategy; the use of the cross-functional drivers and logistical drivers to effect the supply chain strategy; risk

MAR 5465 – Strategic Purchasing and Supply Management: Thorough study of strategic purchasing and its relationship to and importance in global competitiveness

MAN 5533 – Advanced Risk Management: Analyzes the types of risk to which supply chains are exposed, with emphasis upon developing a risk mitigation strategy

QMB 5XXX – Advanced Management Science: Study in advanced management science techniques, such as integer programming, dynamic programming, and modeling techniques

TRA 5723 – Supply Chain Management II: Extension of TRA 5722 with emphasis upon supply chain management case applications

MAN 5325 (elective) – Human Resource Management: Study of human behavior and the theories and concepts used to implement policies and procedures in the global business environment

MAN 5405 (elective) – Successful Business Negotiations: A study in a broad range of negotiating situations, including experimental exercises with goal setting and strategy in distributive and integrative bargaining situations

QMB 5555 (elective) – Managerial Research Methods: Advanced study in statistical methods including primary data collection, data mining, and use statistical analysis software for management decisions

MAN 5910 - Graduate Research: Independent graduate study for thesis preparation (6 Hours)

E. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and indicate whether any industry advisory council exists to provide input for curriculum development and student assessment.

The topics chosen for the curriculum were chosen because of the skills sought by SBI corporate partners, as well as those that are necessary at the various stages of the supply chain process. They were chosen to prepare students for a career in any facet of supply chain management, and to enable them to advance in this career field by moving easily from one area to another.

F. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.

It has not been determined whether accreditation of the MS Supply Chain Management program will be sought. It is anticipated graduates will be eligible for certification upon completion of the degree.

G. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?

Not applicable for Master of Science

H. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2 in Appendix A. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

The Master of Science degree in Supply Chain Management will be offered in the School of Business and Industry at Florida A&M University in Tallahassee, Florida. The degree program will employ a combination of the traditional and nontraditional systems in delivering the educational program. Many of the course offerings in the degree program will be supplemented with online activities using a nontraditional platform allowing the graduate students to maximize in-person time in the classroom and support collaborative activities that take place remotely. The program delivery system will not require any specialized services, nor will it incur any additional costs. No plans have been made to offer this program in collaboration with other universities.

IX. Faculty Participation

A. Use Table 4 in Appendix A to identify existing and anticipated full-time (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year

annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).

For the details of this response, please see Table 4 or Appendix A. The professors who will be participating in this program are Drs. Sutterfield, Ridley, Etienne and Cole. All hold at least the Ph.D., and Dr. Sutterfield has done some post-doctoral study. Sutterfield, Ridley and Etienne are tenured, and Cole is tenure track. Dr. Sutterfield is on a 9 month contract, and the others on a 12 month contract. Drs. Sutterfield, Ridley and Etienne have major areas in Production Operations Management, the most important facet of Supply Chain Management, and have taught Supply Chain Management for several years. Dr. Cole has a Ph.D. and has been teaching Supply Chain Management since his arrival at SBI in 2013. All are academically qualified. No visiting or adjunct faculty will be used in this program. Details for each faculty member may be seen in Appendix D, Curriculum Vitae.

B. Use Table 2 in Appendix A to display the costs and associated funding resources for existing and anticipated full-time faculty (as identified in Table 2 in Appendix A). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.

For the first year of the program, the estimated cost will be $337,326. Assuming an average inflation rate of 1.3%, the estimated cost for the fifth year will be $359,830. All funds will be Education and General (E&G). No other types of funds will be necessary.

C. Provide in the appendices the abbreviated curriculum vitae (CV) for each existing faculty member (do not include information for visiting or adjunct faculty).

The curriculum vitae for each permanent faculty member are provided in Appendix D. No visiting or adjunct faculty will be employed in the program.

D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.

The tables referenced in this paragraph, which provide supporting details, may be seen at Appendix C. SBI faculty members who will be assigned to the M.S. degree program in Supply Chain Management are in engaged in research activities; continuous improvement of their instructional content and delivery; and service at the institutional, professional, and community levels, which may include activities related to economic development and organizational consulting, as reflected in Table 1. Additionally, Tables 2 and following show that for the past five (5) years, SBI faculty members assigned to the M.S. degree program in Supply Chain Management are engaged in research activities in the areas of teaching, discovery, application and integration. Curriculum vitae for each faculty member may be found in Appendix D in connection with this paragraph.

X. Non-Faculty Resources

Library resources and services are sufficient to ensure the achievement of the goals and outcomes of the Master of Science in Supply Chain Management. The University Libraries provide collections of current books, periodicals, and pertinent reference materials, which are readily accessible to students and are sufficient in scope to support the curriculum. The

Samuel H. Coleman Memorial Library (the main library) and branch libraries provide traditional print, as well as electronic access to full text databases, e-journals, e-books, images and video. Library collections contain materials that support the Supply Chain Management curriculum directly and indirectly through interdisciplinary collections.

The following table shows library holdings targeted for use by the general campus and community population, as well as holdings targeted to support Supply Chain Management.

Library Resources	*General*	*Business*	*Supply Chain Management*
Holdings	*1,638,853*	*75,290*	*566*
Books	*1,407,354*	*46,269*	*541*
Images/Video	*95,458*	*6,242*	*4*
Electronic Books	*173,004*	*13,522*	*273*
Journals/Serial	*116,217*	*21,561*	*19*
Electronic Journals	*90,192*	*20,628*	*19*
Electronic databases	*320*	*36*	*36*

The University maintains borrowing agreements and memberships that mutually enhance resources availability for FAMU and other Florida learning communities. Partnerships are with the State University Libraries of Florida, the Florida College System Libraries and the State Library of Florida. The Libraries are members of the Florida Academic Library Services Cooperative (FALSC), which provides services to the users and staff of Florida's public college and university libraries. Florida public postsecondary college and university libraries provide services directly and indirectly to students and faculty of State of Florida postsecondary institutions. Over 13,000 volumes held by the other 39 Florida public postsecondary institutions supplement the FAMU collections related to Supply Chain Management. The following information details additional resources and services available to FAMU students and faculty.

Libraries	*General*	*Business*	*Supply Chain Management*
State University System	*39,941,347*	*826,889*	*6,791*
Florida College System	*6,200,388*	*458,507*	*6,534*

Onsite and reciprocal borrowing privileges to students and faculty at all 40 Florida public institutions of postsecondary education is provided. Service includes daily document delivery via statewide courier to over 250 libraries in the Florida Library Information Network (FLIN). FAMU students and faculty have access to the courier service for interlibrary loan transactions.

Budget

The following chart illustrates the University Libraries' funding over the last five years and its expenditures for library/information resources in supply chain management during that period.

University Libraries Budget

Year	*2010-2011*	*2011-2012*	*2012-2013*	*2013-2014*	*2014-2015*

University Libraries Budget	***$2,500,401.00***	***$2,625,803.00***	***$3,417,950.00***	***$3,773,647.00***	***$3,088,963.00***
Supply Chain Management					
Books	***$7,305.00***	***$10,123.00***	***$17,361.00***	***$20,277.00***	***$12,561.00***
Journals	***$71,369.00***	***$47,969.00***	***$51,073.00***	***$54,222.00***	***$57,488.00***
Databases	***$127,060.00***	***$170,695.00***	***$178,825.00***	***$176,452.00***	***$183,760.00***
Total	***$205,734.00***	***$228,787.00***	***$247,259.00***	***$250,951.00***	***$253,809.00***

Access to Collections and Services

Students, faculty and staff have access to collections, resources and services 24 hours a day, seven days a week, either through the 140 hours that the main library is open or through the library web page. Through the University Libraries' web page, faculty and students have full access to the FAMU library catalog on or off campus, and the library catalogs of the State University System and Florida College System libraries. Online resources and services are available within the libraries, from campus computers, in faculty offices, and from residence halls. Off-campus access is also available 24 hours a day to authenticated users (students, faculty, and staff). Support services such as instruction, interlibrary loans, loan renewals, course reserves, reference assistance, and distance learning services are also accessible from the web page.

Services

FAMU Libraries provide a full range of traditional and innovative library services. Users have access to reference services via local and toll free telephone, electronic mail, online chat service (AskALibrarian), text and fax. Services enable users to access and to use information resources in the libraries and from remote locations. The Information Commons, in Coleman Library, allows users to access main library services from one common area. Several Library services are available from this service point. Services include borrowing privileges, interlibrary loan, course reserves, reference and research services, and systems support services.

Borrowing Privileges

Students, faculty, and staff have borrowing privileges at the FAMU Libraries, and reciprocal borrowing privileges to the 40 public universities and colleges in Florida. Borrowers may view and renew items that are currently checked out through the online catalog.

Interlibrary Loan

Students, faculty, and staff who are currently enrolled and engaged in academic research have Interlibrary Loan (ILL) borrowing privileges to the 40 public universities and colleges in Florida and to other libraries globally. Requests may be initiated in person or through the online catalog, which along with reciprocal borrowing, provides access to materials that the University does not own.

Course Reserves

Print and electronic materials may be placed on reserve at the Libraries. The reserve service provides a central and convenient location for students to retrieve materials. These materials are owned by the University or come from the private collections of faculty who place materials on reserve for enrolled students.

Reference and Research Services

On site and virtual reference/research services are provided. Reference Services include individual research/ consultation, the provision of electronic and print research guides and the provision of online tutorials. Reference librarians provide a variety of instructional

services to meet the information literacy needs of students, faculty, staff, administrators, and the community at large.

Instruction/Information Literacy

The University Libraries provide competent, quality, and timely instruction through a variety of instructional services. Information is delivered through informal and point of use instruction, individual and group instruction, formal orientations and literacy sessions, orientation to new student groups, subject specific scheduled workshops, printed handouts, research guides and online tutorials. Instruction is provided to local users as well as to distance learners. Library users should be able to differentiate between trustworthy and untrustworthy sources, and have the skills to use resources independently. Information literacy sessions are designed to equip users with the skills needed to locate, evaluate, and use library information resources and services. Formal literacy instruction is based upon goals as defined by classroom faculty. These classes are held in a classroom, which allow hands-on interactive instruction. Library instruction is based upon guidelines published by the Association of College and Research Libraries (ACRL) Guidelines for Instruction Programs in Academic Libraries.

Liaison Program

Librarians work with all academic units to assure that the collection supports defined curricular goals and that adequate services, including instruction are provided. The School of Business has appointed a representative to the Library Collection Development Committee. This liaison works in collaboration with librarians to evaluate, select, and purchase resources recommended for Business programs, including Supply Chain Management.

Systems Support Services

The Systems Department provides and maintains 250 public computers along with software, hardware and support services necessary for providing and using information resources. Computers are configured to provide access to the libraries' web page and online catalog. Computers are also configured with various types of production software. Computers have been placed in group study rooms and wireless access is available in the Café. Library users can print to designated print stations. Computers are located on each floor of the main library and in all branch libraries. A help desk is staffed as part of the Information Commons to assist users with software applications and technology support. Helpdesk staff assists patrons with directional questions, laptop registration and circulation, referrals and resolution of computing and printing needs and issues.

Staff

All Library and related personnel meet or exceed minimal educational requirements as defined by the Association of College and Research Libraries (ACRL). Librarians hold master's degrees from ALA accredited schools. Additionally, two faculty librarians have completed the specialists' degree in library science and four faculty librarians have completed master's degrees in other subject disciplines. The University employs 15 librarians. Support staffare also very well qualified, evidenced by one support staff holding a master's degree and 17 support staff holding bachelor's degrees.

Facilities

All faculty and students have full access to the facilities of FAMU's Coleman Memorial Library and branch libraries. These facilities more than adequately support faculty and student use of information technology for instruction, learning and research. Coleman Memorial Library occupies approximately 88,964 net square feet. Almost 20,000 additional

square feet are available in the branch libraries. The University Libraries have a seating capacity of 834, including group study rooms, a student study lounge and cafe, and 20 graduate/faculty study carrels. Also included are an information literacy classroom and teleconference rooms. All library facilities enjoy dense fiber optic wiring (one outlet for every 40 square feet of floor space) to the desktop. In addition to fiber wiring, much of the main library and its immediate grounds are wireless, enabling students and faculty convenient and generous access to the wireless network using their own supported laptops, or they may borrow one of 24 network-ready laptops from the Library Systems Department for use in the library.

The Office of Instructional Technology is housed in Coleman Library. Instructional Technology contains two teleconference centers/distance learning classrooms, with a combined seating capacity of over 50 people, designed for both satellite teleconferencing and for mediated viewing. The OIT also contains an open computer laboratory and faculty development laboratory. Audiovisual resources and equipment are available for faculty to reserve and/or view.

XI – Non-Discrimination Policy

10.103 Non-Discrimination Policy and Discrimination and Harassment Complaint Procedures of Florida A&M University.

(1) It is the policy of Florida A & M University that each member of the University community be permitted to work or attend class in an environment free from any form of discrimination including race, religion, color, age, handicap, disability, sex, marital status, sexual orientation, gender identity, gender expression, national origin, veteran status, and sexual harassment, as prohibited by state and federal statutes. Organizations using University facilities, support or services must assure that they do not illegally discriminate in their membership with respect to race, color, religion, age, handicap, disability, sex, marital status, national origin, and veteran status. This commitment applies to all areas affecting students, faculty, administrative and professional (A &P) employees, Executive Service employees, University Support Personnel System (USPS) employees and Other Personal Services (OPS) employees. It is also relevant to the University's selection of contractors, to suppliers of goods and services, and any employment conditions and practices.

Appendix A

Board of Governors' New Degree Worksheets

APPENDIX A

TABLE 1-B
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES
(Graduate Degree Program)

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	1	0.75	1	0.75	1	0.47	1	0.75	1	0.75
Students who transfer from other graduate programs within the university**	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Individuals who have recently graduated from preceding degree programs at this university	5	3.75	7	5.25	9	6.75	11	8.25	13	9.75
Individuals who graduated from preceding degree programs at other Florida public universities	4	3.00	5	3.75	6	4.50	7	5.25	8	6.00
Individuals who graduated from preceding degree programs at non-public Florida institutions	2	0.94	2	1.50	2	1.50	2	1.50	2	1.50
Additional in-state residents***	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Additional out-of-state residents***	1	0.47	2	0.94	3	2.25	4	3.00	5	2.34
Additional foreign residents***	2	0.94	3	1.41	4	1.88	5	2.34	6	4.50
Other (Explain)***	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Totals	15	9.84	20	13.59	25	17.34	30	21.09	35	24.84

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.
** If numbers appear in this category, they should go DOWN in later years.
*** Do not include individuals counted in any PRIOR category in a given COLUMN.

APPENDIX A

TABLE 2
PROJECTED COSTS AND FUNDING SOURCES

Instruction & Research Costs (non-cumulative)	Year 1 Funding Source							Year 5 Funding Source					
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	Other New Recurring (E&G)	New Non-Recurring (E&G)	Contracts & Grants (C&G)	Auxiliary Funds	Subtotal E&G, Auxiliary, and C&G	Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)	Auxiliary Funds	Subtotal E&G, Auxiliary, and C&G
Faculty Salaries and Benefits	337,326	0	0	0	0	0	$337,326	359,830	0	0	0	0	$359,830
A & P Salaries and Benefits	0	0	0	0	0	0	$0	0	0	0	0	0	$0
USPS Salaries and Benefits	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Other Personal Services	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Assistantships & Fellowships	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Library	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Expenses	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Operating Capital Outlay	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Special Categories	0	0	0	0	0	0	$0	0	0	0	0	0	$0
Total Costs	$337,326	$0	$0	$0	$0	$0	$337,326	$359,830	$0	$0	$0	$0	$359,830

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "other new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Note: Year Five Continuing Base increased due to 1.30% inflation increase.

Faculty and Staff Summary

Total Positions	Year 1	Year 5
Faculty (person-years)	2.84	2.84
A & P (FTE)	0	0
USPS (FTE)	0	0

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	$337,326	$359,830
Annual Student FTE	9.84	24.84
E&G Cost per FTE	$34,281	$14,486

APPENDIX A

TABLE 3 (DRAFT)
ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS*

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Dean's Office		337,326	
Totals		$337,326	

* If not reallocating funds, please submit a zeroed Table 3

APPENDIX A

TABLE 4 (DRAFT)
ANTICIPATED FACULTY PARTICIPATION

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	J. S. Sutterfield, Ph.D.+ Quant. Meth. & Supp. Chain Mgmnt.	Distinguished Professor	Tenured	Fall 2016	9	0.75	54%	0.41	9	0.75	54%	0.41
A	Eisenhower C. Etienne, Ph.D. Production Operations Management	Professor	Tenured	Fall 2016	12	1.00	81%	0.81	12	1.00	81%	0.81
A	A. Dennis Ridley Production Operations Management	Professor	Tenured	Fall 2016	9	0.75	81%	0.61	9	0.75	81%	0.61
A	Dwayne Cole Supply Chain Management	Assistant Professor	Tenure track	Fall 2016	9	0.75	81%	0.61	9	0.75	81%	0.61
	Total Person-Years (PY)							2.43				2.43

Faculty Code		Source of Funding	PY Workload by Budget Classsification Year 1	Year 5
A	Existing faculty on a regular line	Current Education & General Revenue	2.43	2.43
B	New faculty to be hired on a vacant line	Current Education & General Revenue	0.00	0.00
C	New faculty to be hired on a new line	New Education & General Revenue	0.00	0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.00	0.00
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00	0.00

Overall Totals for	Year 1	2.43		Year 5	2.43

APPENDIX B

Please include the signature of the Equal Opportunity Officer and the Library Director.

Carin M. Hamin
Signature of Equal Opportunity Officer

February 18, 2016
Date

Faye Mackins
Signature of Library Director

February 18, 2016
Date

This appendix was created to facilitate the collection of signatures in support of the proposal. Signatures in this section illustrate that the Equal Opportunity Officer has reviewed section II.E of the proposal and the Library Director has reviewed sections X.A and X.B.

Appendix C

Statistical Data

Table 1: Scholarly and Professional Activities (2010-2015)

Last Name	First Name	Highest Degree	Professional Certification	PRJ	RM	Books	Chapters	PRP	PRPP	FRS	NPRJ	A	B	C	D	Total
Etienne	Eisenhower	PhD		8	0	0	0	0	1	0	0	1	0	2	6	9
Ridley	Dennis	PhD		5	0	0	1	9	0	0	0	1	5	1	8	15
Sutterfield	J. Scott	PhD+	RPE	11	0	0	0	12	12	0	0	4	6	6	19	35
Cole	Dwayne	PhD		2	0	0	1	1	4	0	0	1	2	0	5	8

Legend
PRJ- Peer Reviewed Journals
RM- Research Monographs
PRP- Peer Reviewed Proceedings
PRPP- Peer Reviewed Paper Presentations
FRS- Faculty Research Seminars
NPRJ- Non-Peer Reviewed Journals

A- Scholarship of Teaching
B- Scholarship of Discovery
C- Scholarship of Integration
D- Scholarship of Application

Tables 2, 3, and 4 below provide a summary of SBI faculty members' loads to demonstrate these faculty members' productivity in teaching, research, and service. These tables also show that SBI faculty members who are assigned to the M.S. degree program in Supply Chain Management are engaged in the essential functions of classroom teaching assignments, student advising and counseling activities, scholarly and professional activities, and university/school and community service activities.

Table 2: Faculty Load 2013-2014

Last Name	First Name	Hours Taught	# Preps/ Years	Fall	Spring	Summer	Scholarly Activities	Professional Activities	# Committees
Etienne	Eisenhower	27	5		2	3	Yes	Yes	1
Ridley	Dennis	12	2		0	2	Yes	Yes	1
Sutterfield	J. Scott	6	2		0	0	Yes	Yes	2
Cole	Dwayne	12	1		1	1	Yes	Yes	1

Table 3: Faculty Load 2014-2015

Last Name	First Name	Hours Taught	# Preps/ Years	Fall	Spring	Summer	Scholarly Activities	Professional Activities	# Committees
Etienne	Eisenhower	21	5	3	2	1	Yes	Yes	1
Ridley	Dennis	18	2	1	1	1	Yes	Yes	1
Sutterfield	J. Scott	12	4	1	3	0	Yes	Yes	2
Cole	Dwayne	15	3	1	3	1	Yes	Yes	1

Table 4: Faculty Load 2015-2016

Last Name	First Name	Hours Taught	Number of Preps/Years	Fall	Spring	Summer	Scholarly Activities	Professional Activities	Number of Committees
Etienne	Eisenhower	18	3	2	2	1	Yes	Yes	1
Ridley	Dennis	12	2	1	2	1	Yes	Yes	1
Sutterfield	J. Scott	9	3	1	2	0	Yes	Yes	2
Cole	Dwayne	18	4	2	2	1	Yes	Yes	1

Table 5 below shows SBI's graduate student enrollment for the past six (6) years. The average graduate student enrollment for the 6 year period was one hundred and nine (109).

Table 5: Graduate Student Enrollment

SBI Graduate Student Enrollment					
Fall 2015	Fall 2014	Fall 2013	Fall 2012	Fall 2011	Fall 2010
95	101	119	149	106	84

The number of graduate degrees awarded in SBI for the past five (5) years can be found in Table 6. The average number of graduate degrees awarded in SBI during the past five years was 51.

SBI Graduate Degrees Awarded				
2014- 2015	2013 - 2014	2012- 2013	2011- 2012	2010-2011
47	74	46	38	50

Appendix D

Curriculum Vitae

Curriculum Vitae

for

J. S. Sutterfield, Ph.D.

Florida A&M University
School of Business and Industry
Standard Faculty Vitae

Date Received: 4-20-2007

A. GENERAL INFORMATION:

Name: J. S. Sutterfield

Academic Rank: Associate Professor

Graduate	**X**
Undergraduate	

Discipline: Operations Management/Mgmnt. Science

Status:

Primary Teaching Field: Engineering and Supply Chain Management

Email: pisces4914@earthlink.net

Date of Initial Appointment: August 2001

Phone: 850-412-7723

B. EDUCATION/DEGREES

DEGREE	YEAR	INSTITUTION	MAJOR FIELD
Post. Doc.	1994-1995	U. of Mo. Rolla-Rolla, MO	Engineering Management/Mgmt. Science
Ph.D.	1994	U. of Mo. Rolla-Rolla, MO	Engineering Management/Mgmt. Science
MS	1970	U. of Mo. Rolla-Rolla, MO	Mech./Aero. Engr. & Applied Mathematics
BS	1962	U. of Mo. Rolla-Rolla, MO	Mech. Engineering & Applied Mathematics

C. PROFESSIONAL CERTIFICATION AND/OR LICENSES

CERTIFICATION/LICENSE	DATE RECEIVED	ORIGANIZATION	ACTIVE/INACTIVE
Registered Professional Engineer in MO: E-13883	**May 1970**	**Missouri State Board of Registration for Architects and Professional Engineers**	**Inactive**

D. PROFESSIONAL WORK EXPERIENCES RELATED TO TEACHING FIELD

YEAR	EMPLOYER	POSITION	PERIOD OF EMPLOYMENT
2/99-6/01	Duchesne High School	Instructor of Physics and Math.	Approximately 3 years
9/99-6/01	Southeast Mo. State University	Adjunct Professor of Industrial Tech.	Two academic years
9/67-11/97	U.S.A. Department of Army	Deputy PM, Chief Engr. & Acq. Mgr.	30-1/4 years

DESCRIPTION OF EXPERIENCES:

1- Instructed students in Physics and Mathematics in preparation for college

2- Instructed university students in industrial technology

3- Managed P.M. operations, managed acquisition of large systems, served as Chief Engineer for PM

SERVICES (TYPE = COMMUNITY, UNIVERSITY, OR SCHOOL)

YEAR/TERM	TYPE	DESCRIPTION
2007 – Pres.	Univer.	General Education Assessment Committee (GEAC)
2007 – Pres.	Univer.	FAMU Honors program board of Directors
2007 – Pres.	School	Strategic Planning Committee
2007 – Pres.	School	Curriculum Committee
2006 – Pres.	Comm.	Special projects officer for Timberlane Church of Christ
2011 – Pres.	Comm.	Board of Directors for New Saints School

E. COURSES TAUGHT DURING PAST FIVE YEARS:

TERM/YEAR	COURSE NO.	SECTION	COURSE TITLE
Spring/2012	TRA 5722	301	Supply Chain Management I
Spring/2012	QMB 2102 & 3602	301 and 304	Quantitative Methods in Business II
Fall/2011	TRA 5723	301	Global Logistics II
Fall/2011	MAR 5465	301	Strategic Purchasing and Supply Management
Fall/2011	MAN 4532	301	Engineering and Production Management
Spring/2011	TRA 5722	301	Global Logistics I
Spring/2011	MAN 5511	301	Production Operations Management
Spring/2011	MAN 4533	301	Management Engineering II
Fall/2010	TRA 5722	301	Global Logistics I
Fall/2010	MAR 5465	301	Strategic Purchasing and Supply Management
Fall/2010	MAN 3532	301	Management Engineering I
Spring/2010	TRA 5722	301	Global Logistics I
Spring/2010	MAN 4503	301	Production Management
Spring/2010	MAN 3532	301	Management Engineering I
Fall/2009	MAR 5465	301	Strategic Purchasing and Supply Management
Fall/2009	MAR 4461	301	Purchasing and Supply Management
Fall/2009	MAN 3532	301	Management Engineering I
Spring/2009	TRA 5723	301	Global Logistics II
Spring/2009	TRA 5723	301	Global Logistics II
Spring/2009	MAR 4461	301	Purchasing and Supply Management
Spring/2008	MAN 3532	301	Management Engineering I
Spring/2008	MAR 4461	301	Purchasing and Supply Management
Spring/2008	MAN 5511	301	Production Operations Management
Fall/2008	MAN 3532	301	Management Engineering I
Fall/2008	MAR 4461	301	Purchasing and Supply Management
Fall/2008	MAR 5465	301	Strategic Purchasing and Supply Management
Spring/2007	MAN 3532	302	Management Engineering I
Spring/2007	MAN 3533	301 and 302	Management Engineering II
Fall/2007	MAN 3532	301 and 302	Management Engineering I
Fall/2007	MAR 5465	301	Strategic Purchasing and Supply Management
Spring/2006	MAN 3532	301 and 302	Management Engineering I
Spring/2006	MAN 5511	301	Production Operations Management
Fall/ 2006	MAN 3532	301 and 302	Management Engineering I
Fall/2006	MAR 5465	301	Strategic Purchasing and Supply Management
Spring/2005	MAN 3532	301 and 302	Management Engineering I
Spring/2005	MAN 5511	301	Production Operations Management
Fall/2005	MAN 3532	301, 302, 303	Management Engineering I
Fall/2005	MAN 4503	303	Production Management
Spring/2004	MAN 3532	301 and 302	Management Engineering I

E. COURSES TAUGHT DURING PAST FIVE YEARS (cont'd):

TERM/YEAR	COURSE NO.	SECTION	COURSE TITLE
Spring/2004	MAN 5511	301	Production Operations Management
Fall/2004	MAN 5511	301	Production Operations Management
Spring/2003	MAN 3532	301 and 302	Management Engineering I
Spring/2003	MAN 5511	301	Production Operations Management
Fall/2003	MAN 3532	301 and 302	Management Engineering I
Fall/2003	MAN 5511	301	Production Operations Management
Fall/2002	MAN 3532	304, 305, 306	Management Engineering I
Spring/2002	MAN 3532	304, 305	Management Engineering I
Spring/2002	MAN 3531	301	Introduction to Management Engineering
Fall/2001	MAN 3532	304, 305, 306	Management Engineering I

F. INTELLECTUAL CONTRIBUTIONS

Note 1: List each contribution in the appropriate category, leaving a blank line between each category.
Note 2: Date each contribution and be able to provide documentary evidence for each contribution.
Note 3: Use APA Chicago, Turabian or any common style recommended by journals in your field.

1. CATEGORY A CONTRIBUTION (Discipline-Based Scholarship)

Intellectual contribution related to the teaching and learning activities of the school. Example of such intellectual contributions includes:

- Published journal article and conference proceedings papers on the theory and practice of effective teaching pedagogies or student learning;
- Presentation at educational conferences and seminars;
- Major editorial responsibilities with pedagogical or learning-focused journals related to the field of the faculty member's area of primary teaching responsibility;
- Development of innovative teaching cases and materials;
- And the development of new course offerings and curricula.

Activities 2008 – Present:

Journal article: **SHKF Paper Company: An Analysis in Strategic Planning Cost Optimization**, *The Business Studies Journal*, double blind referred, LoA dated June 11, 2012

Journal article: **The Use of Analytical Hierarchy Process to Design a Healthcare System**, *The Journal of Management and Engineering Integration*, double blind referred, vol. 4, num. 1, Summer 2011

Journal article: **Supplier Selection Using QFD: A Consumer Products Case Study**, *International Journal of Quality and Reliability Management*, double blind referred, LoA dated July 26, 2011

Journal article: **Using Taguchi Methods in a Marketing Study to Determine Features for a SmartPhone**, *Academy of Marketing Studies Journal*, double blind referred, LoA dated February 21, 2011

Journal article: **A Binomially Distributed Production Process Revisited: A Pedagogical Approach**, *Academy of Information and Management Sciences Journal*, double blind referred, Volume 14, Number 1, 2011, Printed ISSN: 1524-7252

Journal article: **Taguchi Analysis for Plasma Etching Optimization**, *Journal of Management & Engineering Integration*, double blind referred, Volume 3, Number 1, Summer 2010

Journal article: **Production Cost Using the Pascal Distribution**, *Journal of Management & Engineering Integration*, double blind referred, Volume 2, Number 2, Winter 2009/2010

Journal article: **Using Taguchi Methods for Industrial Process Optimization**, *Journal of Academy of Business and Economics*, double blind referred, LoA dated February 13, 2009

Journal article: **Project Management Software Selection Using Analytical Hierarchy Process**, *Academy of Information and Management Sciences Journal*, double blind referred, Volume II, Number 2, 2008, LoA August 6, 2008

Journal article: **The Revolution of Six-Sigma: An Analysis of its Theory and Application**, *Academy of Information and Management Sciences Journal*, double blind referred, Volume II, Number 1, 2008, LoA August 6, 2008

Presentation: **SHKF Paper Company: An Analysis in Strategic Planning Cost Optimization**, *2012 Allied Academics Conference*, New Orleans, LA, April 5, 2012

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods**, *2012 IEMS Conference*, Cocoa Beach, FL, March 26, 2012

Presentation: **The Effect of Religion Upon Consumer Behavior**, *2012 IEMS Conference*, Cocoa Beach, FL, March 26, 2012

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods**, *2012 FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2012

Presentation: **The Effect of Religion Upon Consumer Behavior**, *2012 FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2012

Presentation: **Using Taguchi Methods in a Marketing Study to Determine Features for a SmartPhone**, *2011 Allied Academics Conference*, Orlando, FL, April 8, 2011

Presentation: **Local Business Live Case Analysis & Simulation: Ujama Embroidery and Design**, *2011 FAMU Scholar's Conference*, Tallahassee, FL, March 30, 2011

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods**, *2011 FAMU Scholar's Conference*, Tallahassee, FL, March 30, 2011

Presentation: **The Use of Analytical Hierarchy Process (AHP) to Design a Healthcare System**, *2011 FAMU Scholar's Conference*, Tallahassee, FL, March 30, 2011

Presentation: **Local Business Live Case Analysis & Simulation: Ujama Embroidery and Design**, *2011 IEMS Conference*, Cocoa Beach, FL, March 28, 2011

Presentation: **Optimization of Turbine Engine Design Parameters with Taguchi Methods**, *2011 IEMS Conference*, Cocoa Beach, FL, March 28, 2011

Presentation: **The Use of Analytical Hierarchy Process (AHP) to Design a Healthcare System**, *2011 IEMS Conference*, Cocoa Beach, FL, March 28, 2011

Presentation: **Taguchi Analysis for Plasma Etching Optimization**, *2010 FAMU Scholar's Conference*, Tallahassee, FL, March 23, 2010

F. INTELLECTUAL CONTRIBUTIONS

2. CATEGORY B CONTRIBUTION (Learning & Pedagogical Scholarship)

Intellectual contribution related to the teaching and learning activities of the school. Example of such intellectual contributions includes:

- Published journal article and conference proceedings papers on the theory and practice of effective teaching pedagogies or student learning;
- Presentation at educational conferences and seminars;
- Major editorial responsibilities with pedagogical or learning-focused journals related to the field of the faculty member's area of primary teaching responsibility;
- Development of innovative teaching cases and materials;
- And the development of new course offerings and curricula;

Presentation: **Optimizing Outbound Logistics Costs,** *2010 FAMU Scholar's Conference*, Tallahassee, FL, March 23, 2010

Presentation: **Taguchi Analysis for Plasma Etching Optimization,** *2010 IEMS Conference*, Cocoa Beach, FL, March 8, 2010

Presentation: **Using Taguchi Methods to Analyze Fabric Wear,** *2009 FAMU Scholar's Conference*, Tallahassee, FL, March 10, 2009

Presentation: **Production Cost Using the Pascal Distribution**, *2009 FAMU Scholar's Conference*, Tallahassee, FL, March 10, 2009

Presentation: **Using Taguchi Methods to Analyze Fabric Wear,** *2009 IEMS Conference*, Cocoa Beach, FL, March 10, 2009

Presentation: **Production Cost Using the Pascal Distribution**, *2009 IEMS Conference*, Cocoa Beach, FL, March 10, 2009

Presentation: **The Use of Taguchi Methods to Analyze Nozzle Designs for Maximum Water Jet Stability,** 2008 *FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2008

Presentation: **The Six-sigma Revolution: An Analysis of Theory and Practice,** *2008 FAMU Scholar's Conference*, Tallahassee, FL, March 21, 2008

Presentation: **The Use of Taguchi Methods to Analyze Nozzle Designs for Maximum Water Jet Stability,** *2008 IEMS Conference*, Cocoa Beach, FL, March 12, 2008

Presentation: **The Six-sigma Revolution: An Analysis of Theory and Practice**, *2008 IEMS Conference*, Cocoa Beach, FL, March 12, 2008

Proceedings: **Optimization of Turbine Engine Design Parameters with Taguchi Methods-II,** *2012 IEMS Conference referred proceedings, LoA dated*

Proceedings: **The Effect of Religion Upon Consumer Behavior,** *2012 IEMS Conference referred proceedings, LoA dated*

Proceedings: **Optimization of Turbine Engine Design Parameters with Taguchi Methods-I,** *2011 IEMS Conference referred proceedings, pgs. 220-229*

Proceedings: **Local Business Live Case Analysis and Simulation: Ujama Embroidery and Design**, *2011 IEMS referred proceedings, pgs. 32-34*

Proceedings: **Using Taguchi Methods to Analyze Fabric Wear,** *2011 IEMS Conference referred Proceedings, pgs. 203-210*

Proceedings: **The Use of Taguchi Methods to Analyze Nozzle Designs for Maximum Water Jet Stability,** *2008 IEMS referred Proceedings, pgs. 173 - 181*

Course: **Developed and presented course offering for TRA 5723,** *Global Logistics II*, **in Spring 2009**

Course: **Developed and presented course offering for MAR 4461,** *Purchasing and Supply Management*, **in Spring 2008**

Fall 2001 – Spring 2007:

Journal article: **A Conceptual Framework for Integrating Six-sigma and Strategic Management Methodologies to Quantify Decision-Making**, *TQM Magazine, Emerald Publisher*, volume 19, number 6, 2007, ISSN 0954-478X, pgs. 561-571, Dec. 2007

Journal article: **How NOT to Manage a Project: Conflict Management Lessons Learned from a DOD Case Study,** *Journal of Behavior and Applied Management*, May 2007, volume 8, no. 3, pgs. 218-238, ISSN 1930-0158

Journal article: **A Case Study of Stakeholder and Project Management Failures: Lessons Learned,** *Project Management Journal*, Dec 2006, 37, 5, pgs. 26-35, ISSN 8756-9728/03

Journal article: Paper: **The Use of Taguchi Methods to Solve Quality Engineering Problems**, *Journal of International Academy of Business and Economics*, Volume VI, Number 1, 2006, pgs. 228-242, ISBN 1542-8710

Presentation: **Production Yield Using the Pascal Distribution**, *2007 FAMU Scholar's Conference*, MAR 26-28, 2007, Tallahassee, FL

Presentation: **The Use of Taguchi Methods to Analyze Automotive Emissions**, *2007 FAMU Scholar's Conference*, MAR 26-28, 2007, Tallahassee, FL

Presentation: **Production Yield Using the Pascal Distribution**, *2007 IEMS Conference*, MAR 12-14, 2007, Cocoa Beach, FL

Presentation: **The Use of Taguchi Methods to Analyze Automotive Emissions**, *2007 IEMS Conference*, Mar 12-14, 2007, Cocoa Beach, FL

Presentation: **Investigation of Animal Survival Times Comparing Standard Methods with Taguchi Methods,** *2006 FAMU*

Scholar's Conference, Mar. 20, Tallahassee, FL
Presentation: **The Six-Sigma Quality Evolution and the Tools of Six-Sigma,** *2006 FAMU Scholar's Conference, Mar. xx-xx, Tallahassee, FL*
Presentation: **Investigation of Animal Survival Times Comparing Standard Methods with Taguchi Methods,** *2006 IEMS Conference, Mar. 11-13, Cocoa Beach, FL*
Presentation: **The Six-Sigma Quality Evolution and the Tools of Six-Sigma,** *2006 IEMS Conference, Mar. 11-13, Cocoa Beach, FL*
Presentation: **The Use of Analysis of Variance in Production Problem Diagnosis,** *2005 FAMU Scholar's Conference, Mar. 21, Tallahassee, FL*
Presentation: **Metrics for Continuous Process Improvement,** *2005 FAMU Scholar's Conference, Mar. 21, Tallahassee, FL*
Presentation: **The Use of Analysis of Variance in Production Problem Diagnosis,** *2005 IEMS Conference, Mar. 12-14, Cocoa Beach, FL*
Presentation: **Metrics for Continuous Process Improvement,** *2005 IEMS Conference, Mar. 12-14, Cocoa Beach, FL*
Proceedings: **Investigation of Animal Survival Times Comparing Standard Methods with Taguchi Methods,** *2006 IEMS Proceedings*, refereed, pgs. 470-478
Proceedings: **The Six-Sigma Quality Evolution and the Tools of Six-Sigma,** *2006 IEMS Proceedings*, refereed, pgs. 523-532
Proceedings: **The Use of Analysis of Variance in Production Problem Diagnosis,** *2005 IEMS Proceedings*, refereed, pgs. 362-369, ISBN 0-9710330-4-8
Proceedings: **Metrics for Continuous Process Improvement,** *2005 IEMS Proceedings*, refereed, pgs. 370-378, ISBN 0-9710330-4-8
Proceedings: **Analytical Hierarchy Process for Project Management Software,** *2004 IEMS Proceedings*, refereed, pgs. 376-384, ISBN 0-9710330-3-X
Presentation: **Methodology for Using Quality Function Deployment to Improve Processes,** *2003 IEMS Conference*
Proceedings: **Methodology for Using Quality Function Deployment to Improve Processes,** *2003 IEMS Proceedings*, refereed, pgs. 414-420, ISBN 0-9710330-2-1
Proceedings: **A Methodology for Project Management Software Selection,** *2002 IEMS Refereed Proceedings*, CD, Sect. E67-71, ISBN 0-9710330-1-3
Course: Developed and presented course offering for **MAN 4503, Production Management,** Fall 2005
Course: Developed and presented course offering for **MAN 3533, Management Engineering II,** Fall 2004
Evaluation: Wrote evaluation of paper for West Indian Journal of Engineering, December 2004
Course: Developed and presented course offering for **MAN 5511, Production Operations Management,** Spring 2003
Course: Developed and presented course offering for **MAN 3531, Introduction to Management Engineering,** Spring 2002
Course: Developed and presented course offering for **MAN 3532, Managewment Engineering I,** in Fall 2001

COMMENTS/REMARKS
* Editor for International Journal of Quality & Reliability Management, Emerald Group, April 2012
* Negotiated and prepared and a memorandum of understanding with the Engineering school for joint Business and Engineering programs, Feb. – Aug. 2012
* Led team to prepare a proposal for Progress Energy, February 2012 (currently under review)
* Editor for Operations Management Track of AIEMS Journal 2008 – Present
* Editor for Operations Management Track of IEMS Proceedings 2007 – Present
* Chair for Operations Management Track of IEMS Conference 2007 – Present
* Editor for Operations Management Track of 2007 IEMS Proceedings
* Chair for Operations Management Track of 2007 IEMS Conference
* Chair of one session in Operations Management at 2007 IEMS Conference
* Chair for Operations Management Track of 2006 IEMS Conference
* Chair of two sessions in Operations Management at 2006 IEMS Conference
* Chair of two sessions in Operations Management at 2005 IEMS Conference
* Wrote evaluation of paper for West Indian Journal of Engineering, December 2004
* Session chair in Operations Management at 2004 IEMS Conference
* Selected for "Who's Who in Science and Engineering, 2006-2007"
* Selected for "Who's Who Among America's Teachers, 2004-2005"
* Selected for "Who's Who Among America's Teachers, 2003-2004"
* Selected by Alpha Kappa Alpha Sorority as SBI Distinguished Professor for 2004
* Serve on the editorial board of the West Indian Journal of Engineering, 2004- Present
* Appointed track chair In Operations Management for the International Engineering, and Management Systems Conference, April 2006
* Member of ***Emerald Literati*** scholar's society, 2007-Present
* Served as a peer reviewer, consultant and performance monitor on a successful grant from Department of Education, "Global Opportunities on Interstate 10" ($177,451, May 2005)
* Mentored Ms. Breda Platt in teaching MAN 3532 (Fall Semester 2004)

Curriculum Vitae

for

Dwayne C. Cole, Ph.D.

DWAYNE D. COLE, PH.D.

CV

545-4 E. Park Avenue
allahassee, FL 32301
407) 399-2074
e-mail: dwayne.cole@famu.edu / dwaynedcole@gmail.com

EDUCATION

8/07 – 8/11 **Syracuse University**
PhD Supply Chain Management / Marketing (Fall 2011)

Dissertation
Title: "Essays on End-of-Use Product Acquisition Policies"
Committee: Scott Webster (Chair), Amiya K. Basu, Burak Kazaz, Eunkyu Lee, and Santosh. Mahapatra

8/99 – 12/01 **Florida A&M University**
Masters of Business Administration (Fall 2001)

8/98 – 9/99 **Florida State University**
Masters of Science in Management Information Systems (Summer 1999)

8/86 - 5/91 **Florida A&M University**
Bachelors of Science, Actuarial Science (Spring 1991)

RESEARCH INTERESTS

I am generally interested in managerial issues that arise at the intersection of supply chain management, operations management, and marketing distribution channels. I am particular drawn towards on the business aspects of close-loop supply chains and sustainability. I mostly examine economic models that focus on marketing issues related to channel coordination and competition, and operational issues related to flexibility and uncertainty.

AWARDS

Elliott Initiative Doctoral Dissertation Support Award
University of Michigan at Dearborn
Betty F. Elliott Initiative for Academic Excellence.
The award was granted as response to a competitive call for papers related to "The Business of Sustainability".

Decision Sciences Institute – 2014 Annual Meeting Best Analytical Paper Award
Decision Sciences Institute
The award was granted as response to a competitive call for papers related to "The Business of Sustainability".

PUBLICATIONS

- Cole, D., B. Kazaz, S. Webster (2015), "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement: A Deterministic Analysis," *International Journal of Product Research*
- Cole, D., B. Kazaz, S. Webster (2015), "Satisfying Warranty Claims on an Obsolete Product," *Trends and Research in the Decision Sciences.* Ed. Pearson Education (Referred Book Chapter)
- Cole, D., S. Webster, M. Santosh. (2015) "A Comparison of Buyback and Trade-in Policies to Acquire Used Products for Remanufacturing," *Journal of Business Logistics*, (Minor Revisions)

CONFERENCE PAPERS AND PRESENTATIONS

- Cole, D., B. Kazaz, S. Webster, "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement," presentation at the DSI Annual Meeting, Tampa, Nov 22, 2014.
- Cole, D. S. M. Mahapatra, S. Webster, "Product Acquisition for Remanufacturing: A Dynamic Analysis," presentation at the MSOM Conference, New York, June, 2012.
- Cole, D., B. Kazaz, S. Webster, "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement," presentation at the POMS Conference, Reno, Feb 27, 2011.
- Cole, D., B. Kazaz, S. Webster*, "Final Purchase and End-of-Life Acquisition Decisions in Response to a Component Phase-Out Announcement," presentation at the MSOM Conference, Ann Arbor, June 27, 2011.
- Benjamin, C.O., Dwayne Cole and Alvin Hicks, "Strategies for campus-wide entrepreneurship programs", Proc., 13th Int'l Conf. on Industry, Engineering & Management Systems (IEMS), Cocoa Beach, FL Mar. 12-14, 2007

POSITIONS HELD

Florida A&M University *(Visiting Professor, Supply Chain Management– 2013 - Present)*

- Graduate MBA level: Strategic Supply Chain Management I & II (MBA)
- Undergraduate MBA level: Production Management, Quantitative Methods of Business Decisions I & II

University of Central Florida *(Lecturer, Supply Chain Management– 2011- 2013)*

- Taught Strategic Supply Chain Management (Undergraduate)
- Taught Strategic Supply Chain Management at the MBA and executive MBA level

Florida A&M University *(Visiting Professor, Quantitative Methods of Business Decisions – 2000/2007)*

- Taught Database Management, Introduction to Business Information Systems, and Systems Theory & Design
- Taught quantitative methods to support business decisions related to resource allocation, demand/capacity management, forecasting, business process design, and spreadsheet simulation and modeling

Florida A&M University *(Student Government Association (Administrative / Faculty Advisor) - 2005 - 2006)*

- Provided administrative and budget over-site of 4 full time employees, 100 part time student employees, and a 3.2 million dollar operations budget
- Re-engineered workflows and job responsibilities to better match strategic goals and objectives of university administration and student government leadership
- Modernized IT infrastructure and introduced database applications to better manage partner relationships, website content, employee time & attendance tracking, inventory & equipment tracking, and a SGA membership & participation

American Express Financial Advisors *(January 2000 / May 2000)*

- Designed "Integrated Strategic Performance Indicators" for a multi-channel service delivery environment
- Performed needs requirement analysis and constructed system design documentation for a Data-Warehouse solution to support "Balanced Scorecard" reporting and "Business Performance Monitoring"

FluxFlow, Business Consultants *(Director of Business Transformation – 1996 - 2004)*

- Enabled e-Business processes by designing and implementing information systems that integrated the company's customer service and order processing functions.
- Designed, developed, and implemented a database driven engagement management system that allows the company to manage, track, and analyze engagement itineraries, customer relationships, and contract information
- Designed and coordinated the development of a Web application system that provides online interface to backoffice product information, articles, and engagement schedules
- Lead a Quality Function Deployment (QFD) team that integrated customer input into the company's New Product Development processes and then facilitated the development and promotion of 4 new products and services

MAAT Educational Services *(Entrepreneurial Venture 1992-1996)*

- MAAT provided academic support services to junior and senior high school students. Services included: Math and Science Tutoring; Study Skills Enhancement courses and workshops; ACT Preparation courses and workshops; Tutor Training workshops, and Parental Suggestion workshops
- Developed custom curriculums and learning materials; planned and implemented market and promotion strategies; and directed administrative operations

Pontiac Area Urban League *(Program Director 1993-1994)*

- Constructed instructional materials, recruited youth advocates, coordinated workshops, solicited support from the leadership of various community organizations, and advocated policy change within local government

DIRECTED STUDIES (Select)

- **Applying Yield Management to control resident assignment of Student Housing**
  Florida A&M University, Student Assisted Study (Spring 2002)
- **Forecasting Safety Escorts to Improve Scheduling and Optimize Resource Allocation**
  Florida A&M University student Safe Team, Student Assisted Study (Summer 2002)
- **Overbooking Strategy for Small Dental Office. Children's Endodontic Therapy**
  Student Assisted Study (Spring 2003)
- **Forecasting Service Delivery and Simulating Service Performance for a Regional Automobile Service Chain**
  SuperLube, Student Assisted Study (Summer 2003)
- **Tallahassee Chamber of Commerce: Forecasting New Member Acquisition and Retention**
  Tallahassee Chamber of Commerce, Student Assisted Study (Fall 2003)

DIRECTED STUDIES (continued)

- **Applying Queuing Theory to Enhance the Accuracy of Estimated Wait time in Restaurant Service Delivery System**
  Carraba's Food Chain, Student Assisted Study (Spring 2004)
- **Applying Exponential Smoothing and Classical Decomposition Models to Forecast Student Course Enrollment**
  Florida A&M University School of Business & Industry, Student Assisted Study (Spring 2004)
- **Operational Capacity Implications of Marketing & Advertising Strategy for Hair Salons and Barbara Shops**
  Student Assisted Study (Summer 2004)
- **Leveraging Linear Programming to Enhance Student Government A&S Budget Allocation**
  Florida A&M University Student Government Association, Student Assisted Study (Spring 2005)
- **Leveraging Queuing Theory and Spreadsheet Simulation to Reduce Student Tardiness and Morning Drop-off Congestion** *Gilchrest Elementary, Student Assisted Study* (Spring 2005)
- **Analyzing Customer Acquisition, Retention, and Switching rates of a mid-size Internet Service Provider**
  Network Tallahassee, Student Assisted Study (Spring 2005)
- **Demand & Capacity Management: New Orleans Arena Concessions Stand**
  Student Assisted Study (Spring 2003)
- **Demand Forecasting for the School of Business & Industry's Computer Lab : Analysis of Sign-In Logs**
  Student Assisted Study (Spring 2002)
- **Quantitative Analysis of Operations at Allen Shannon Flea Market: Forecasting Vendor Lease Delinquency and Maximizing Advertising Circulation through Optimization Modeling.**
  Allen Shannon Community Exchange Flea Market, Student Assisted Study (Spring 2004)
- **Leveraging Simple Forecasting to Reduce delays in University Postal Delivery Systems** , *Florida A&M University / University Post Office, Student Assisted Study* (Spring 2002)

VOLUNTEER / PROFESSIONAL SERVICE

- **SBI / AACSB Learning & Assurance Committee**
  Committee Member (2006 - 2007)
- **Florida A&M University / Student Government Association**
  Student Organization / Administrative Advisor (2005 – 2006)
- **Girl Scout Council of the Big Bend**
  Performance Evaluation Task Group (2004)
- **Tallahassee Chamber of Commerce**
  Leads Group 5 Executive Committee (2003 – 2005)
- **Syracuse University / SUNY Environmental Science and Forestry**
  Interdisciplinary Sustainability Research Group (2008 – 2009)

AFFILIATIONS

The PhD Project (Marketing DSA)
Member (2007 – Present)

Council of Supply Chain Management Professionals
Member (2007 – Present)

American Marketing Association
Member (2007 – Present)

INFORMS
Member (2010 – Present)

Decision Science Institute
Member (2010 – Present)

Curriculum Vitae

for

Eisenhower C. Etienne, Ph.D.

CURRICULUM VITAE

Dr. Eisenhower C. Etienne,
Professor,
Production/Operations Management
Total Quality Management/Six-Sigma
School of Business and industry,
Florida A&M University,
One SBI Plaza,
Tallahassee, FL. 32307.

Tel.: (850) 412-7722

E-Mail: eisenhower.etienne@famu.edu
Alternative email : eisenhower_etienne@hotmail.com
Tel.: (868) 663-4618; (416) 438-3864
Cell (850) 264-0913

February, 2015.

CURRICULUM VITAE

NAME : Eisenhower C. Etienne

POSITION SOUGHT :

EDUCATION:

1971-1974	University of the West Indies, Trinidad, B.Sc.(Management Studies)
1975	Univ. of Western Ontario, Ivey School of Business, London, Canada. MBA (first year)
1982	Univ. of Western Ontario, Ivey School of Business, London, Canada. PhD

AWARDS, HONORS AND DISTINCTIONS:

1971-1974	Summa Cum Laude (First Class Honors), University of the West Indies
1975	MBA-I Dean's Honors List, Ivey School of Business, University of Western Ontario
1975-1977	Doctoral Fellowship, Ivey School of Business, University of Western Ontario
1977-1978	Plan for Excellence Scholarship, Ivey School of Business, University of Western Ontario
1978	Doctoral Research Fellowship, Ivey School of Business, University of Western Ontario
1978	Shell Canada Doctoral Research Award, University of Western Ontario
1994	Outstanding OECS Citizen, High Commission of the Organization of Eastern Caribbean States to Canada
1997	City of Montreal, Outstanding Citizen-Contribution to Business
2003	Academic Faculty of the Year, School of Business and Industry, Florida A&M University
2004	Appeared in "Who's Who Among America's Teachers"
2006	Exemplary Mentor Award, Faculty of Graduate Studies, Florida A&M University

OTHER AWARDS AND DISTINCTIONS:

2002	IRA/TRA, INC., FAMU-SBI. Certificate of Excellence as feature speaker for teaching video on Porter's Five Forces Model
2003	Institute of Management Accountants, FAMU Chapter, Certificate of Appreciation

LANGUAGE COMPETENCY:

English (mother tongue)
French (spoken/written/read fluently)
Spanish (spoken/written/read well)

ACADEMIC PRIZES:

1981	Administrative Sciences Association of Canada (ASAC), Division of Production and Operations Management. Prize for Excellence for the paper: "How to Achieve Factory Focus".
1986	ASAC Prize for Excellence for the paper: "The Distribution of Stock-outs during Lead Time.
1987-1988	School of Business Administration, University of Montreal, Prize for Excellence in research for the year 1987-1988.
2008	Global Academy of Business and Economic Research (GABER), International Conference, September, 2008 (Orlando, Florida), Best Paper Award for the paper: "Marketing Differentiation Synergies of High-Velocity Inventory Turns".

TEACHING EXPERIENCE:

1978-1984	Assistant Professor, School of Business, University of Montreal
1984-1999	Associate Professor, School of Business, University of Montreal
1990-1991	Adjunct Professor of Quantitative Methods and Operations Management, Laurentian University, Sudbury, Ontario
1993	Visiting Professor of Project Management, Tianjin University, People's Republic of China(Summer).
1998-2001	Part-time Lecturer in Manufacturing Strategy, Masters in Manufacturing Management, McGill University.
1999-2000	Associate Professor, School of Business, Langston University, Langston, OK
2000-2001	Full Professor, School of Business, Langston University, Langston, OK.
2001-2006	Associate Professor, School of Business and Industry, Florida A&M University, Tallahassee, Florida.
2006-Pres.	Full Professor, School of Business and Industry, Florida A&M University, Tallahassee, Florida.

OTHER EXPERIENCE:

1983-1998	Management Consultant, ACEM, Montreal, Canada
1998-2001	Management Consultant, Hamilton Associates, Toronto, Canada
1999-2001	Associate Dean, School of Business, Langston University, Langston, OK.

PUBLICATIONS:

1. "Global Affiliation, Competition Intensity, Firm Size and the Adoption of Benchmark Quality Practices by Firms in Emerging Economies: The Case of Trinidad and Tobago", Global Review of Business and Economics Research, Vol. 10, no. 1, 2014.
2. "Firm Size, Global Affiliation, International Trade Exposure and the Adoption of Strategic Quality Practices by Firms in Emerging Economies: The Case of a

Petroleum Export Driven Emerging Economy". Submitted for publication, Indian Development Review: An International Journal of Development Economics.

3. "Managerial and Operational Challenges of Deploying Lean Thinking and Six-Sigma in Service Business". Submitted for publication, Global Review of Business and Economics Research.
4. "Strategic Knowledge and the Impact of Implemented Benchmark Quality Systems and Practices by Firms in Emerging Economies: The Case of Trinidad and Tobago". Expected completion, December 2011.
5. "Bermudez Biscuit Company: Quality Crackers and Crix", **(real-life case based on field research)**, anticipated release November, 2011.
6. "Process Control at Bermudez Biscuit Company", **(real-life case based on field research)**, anticipated release November, 2011.
7. "Interactions Between Product R&D and Process Technology", in The Strategy of Managing Innovation and Technology, Murray R. Millson and David Wilemon, editors, (Upper Saddle River, NJ: Prentice Hall), chapter 30, pages 399-406.
8. "Six-Sigma/Lean Six-Sigma in Health Care: A Comprehensive Literature Review and Critical Assessment", submitted for publication.
9. "Comparative Service Quality System Analysis Using Benchmark Six-Sigma Metrics: Evaluation of the Robustness of Service Industry Processes". International Journal of Lean Six Sigma (IJLSS), Vol. 1, Iss. 4, December, 2010.
10. "The Sigma Metric as a Measure of Process Taguchi Robustness: Some Evidence". Submitted for publication, Int. Journal of Quality and Reliability Management" (progressing through refereeing process.
11. "Taguchi Quality Specification Categories and the Computation of Six-Sigma Metrics: Analytical and Service Industry Anomalies and Their Managerial Implications". Submitted for publication, Int. Journal of Six-Sigma and Competitive Advantage (IJSSCA), (progressing through refereeing process).
12. "Empirical Verification of a Mathematical Model for Measuring the Required Reduction in Process Variation to Achieve Six-Sigma Quality Benchmarks". Int. Journal of Six Sigma and Competitive Advantage", Vol. 5, No. 4, (2009), pp. 359-379.
13. "Comparative Quality System Analysis and Evaluation Using the Six-Sigma Benchmark: Evidence from Two Manufacturing Industry Case Studies". Int. Journal of Six Sigma and Competitive Advantage (IJSSCA), Vol. 4, No. 4, 2008, pp 409-433.
14. "The Analysis and Evaluation of a Quality System Using the Six-Sigma Benchmark: Evidence for the Robustness of Six-Sigma Processes". Int. Journal of Productivity and Quality Management, Vol. 4, No. 2, 2009, pp. 178-198.
15. "Development of a Model for Computing the Reduction in Process Variation to Achieve Six-Sigma Performance Benchmarks". Submitted for publication (progressing through refereeing process), Global Review of Business and Economic Research.

16. "Marketing Differentiation Synergies of High-Velocity Inventory Turns". Third Annual Global Academy of Business and Economic Research Conference Proceedings, Orlando, Florida, September 17-19, 2008.
17. "Marketing Differentiation Synergies of High-Velocity Inventory Turns". Global Review of Business and Economic Research, Vol. 5, No. 1, (2009), pp. 21-43.
18. "Supply Chain Responsiveness and the Inventory Illusion". Supply Chain Forum: An International Journal, Vol. 6, no. 1, 2005.
19. "Synergy, Tradeoff and the Dimensions of Supply Chain Responsiveness". International Journal of Applied Operations Management, Vol. 1, no. 1, 2005.
20. "The Implementation Challenges of Six-Sigma in Service Businesses". International Journal of Applied Quality Management, Vol. 2, no. 1, 2005.
21. "Dimensions of Global Operations Strategy in Service Businesses: A Value-Chain Based Analysis". International Journal of Applied Operations Management, Vol. 1, no. 1, 2005.
22. "The Dimensions and Drivers of Supply Chain Responsiveness". International Journal of Applied Operations Management (forthcoming).
23. "The Nature and Determinants of Global Platforms". International Journal of Business Studies, Vol. 10, No. 2, December, 2002, 20 pages.
24. "Six Sigma in Service Businesses: Barriers to Implementation and How to Overcome Them". Proceedings, 30th Annual Conference, Administrative Sciences Association of Canada (ASAC), May, 2002.
25. "The Global Strategies of Service Businesses". Proceedings, 30th Annual Conference, ASAC, May, 2002.
26. "The Management of Service Demand Using Elasticity: The Design of Multi-tiered Price Structures for Demand Management", Working Paper, School of Business, University of Montreal, March, 1997.
27. "Managing Service Demand and Supply Using Elasticity of Demand Information", Working Paper, School of Business, University of Montreal, October, 1996.
28. Operations Strategies for Competitive Advantage. Fort Worth, Texas: Harcourt Brace, (International Thompson Publications, 1994), 559 pages.
29. "Proposals for the Creation, Structuring and Operation of the Matthieu DaCosta Business Development Corporation", Working paper, School of Business, University of Montreal, October, 1993, 187 pages.
30. "Computing the Service Level in Contexts Where Lot Sizes Are Used", Working Paper, School of Business, University of Montreal, March, 1992.
31. "Demand and Lead Time Randomness and the Service Level Impact of Lot Sizes", Working Paper, School of Business, University of Montreal, March, 1992.
32. "Just-in-Time", Purchasing Management Association of Canada, 1985, 34 pages.
33. "MRP", Purchasing Management Association of Canada, 1985, 50 pages.
34. "Economic and Operational Factors in the Design of Refineries", Lecture Notes, Diploma in Petroleum Industry Management, School of Business, University of Montreal, November, 1987.

35. "MRP-II and the Strategic Position of Purchasing: Potential versus Reality", National Association of Purchasing and Materials Management, Conference Proceedings, University of Michigan, October 10-12, 1987.
36. "The Distribution of Stockouts During Lead Time", Administrative Sciences Association of Canada (ASAC) Conference Proceedings, June, 1987.
37. "Service Operations Management in Four Modes", Working Paper, School of Business, University of Montreal, 1982.
38. "Choosing Optimal Buffering Strategies in MRP", Journal of Operations and Production Management, Vol. 7, No.1, 1987.
39. "Service Strategy and the Service Level Impact of Lot Sizes in Dependent and Independent Demand Contexts", Administrative Sciences Association of Canada (ASAC) Conference Proceedings, June, 1986.
40. "A Simple and Robust Model for Computing the Service Level Impact of Lot Sizes in Dependent and Independent Demand Contexts", Journal of Operations and Production Management, Vol. 7, No.2, 1987.
41. "MRP and the Strategic Position of Purchasing: Potential versus Reality", Proceedings, National Association of Purchasing Managers, Purchasing Research Symposium, University of Michigan, October, 1987.
42. "The Choice of Optimal Buffering Strategies for Dealing with Uncertainty in Material Requirements Plans", Administrative Sciences Association of Canada (ASAC) Conference Proceedings, June, 1985.
43. "The Management of Public Service Operations", Ecole Nationale d'Administration Publique (ENAP), 1985, 47 pages.
44. "Production and Operations Management: Toward 2001," Chapter 14 in, Management in 2001, (Montreal, Canada: Chenetiere and Stanke, 1983), 21 pages.
45. "Characteristics and Requirements of Product and Process Technology and Their Implications for the Strategic Management of Innovation," ASAC Conference Proceedings-Production and Operations Management , Vol. 41, Part 7, June, 1983.
46. "How to Achieve Factory Focus,", ASAC Conference Proceedings-Production and Operations Management, Vol. 3, Part 7, 1983.
47. "MRP May not Be Right for You: At Least not Yet," Production and Operations Management, Vol. 24, no. 3, September, 1983.
48. "Comparative Behavior of Statistical Inventory Control and Materials Requirement Planning System Under Varying Industrial Conditions: Presentation and Evaluation of a Model," International Journal of Operations and Production Management, Vol. 3, no. 2, September, 1983.
49. "Products and Processes: What Should Be the Firm's Innovation Strategy?" Revue Francaise de Gestion, No. 41, July/August, 1983.
50. "Reussir la Focalisation du Systeme de Production," Revue Gestion, Vol. 7, no. 4, November, 1982,
51. "Research in Production and Operations Management: The Case of Quebec," HEC-Paris/HEC-Montreal Marketing and Production Conference, 1981, 17 pages.

52. "Integrating Product and Process Technology with Corporate Strategy," Working Paper 82-19, School of Business Administration, University of Montreal, 37 pages.
53. "Production and Operations Management: Towards 2001," Working Paper 81-06-16, School of Business Administration, University of Montreal, 1981, 17 pages.
54. "The Development of Production and Operations Management: A Historical Perspective," Working Paper, School of Business Administration, University of Montreal, 1978, 39 Pages.

PUBLICATIONS IN PROGRESS:

1. "Six Sigma in Health Care Services: A Comprehensive Literature Review and Critical Assessment".
2. "Comparative Quality System Analysis and Evaluation Using the Six-Sigma Benchmark: A Comparison of Manufacturing and Service Industries Cases". Expected completion date: November, 2010.
3. "Operating Synergies of High-Velocity Inventory Turns". Submitted for publication- going through refereeing process.
4. "Strategic Synergies of High-Velocity Inventory Turns". Expected completion date: December, 2010.
5. The Measurement Problem of Six-Sigma in Service Businesses. Expected completion date: October, 2010.
6. A Comparative Analysis of the Similarities and Differences between the TQM and Six-Sigma Paradigms. Expected completion date: December, 2010.

MAJOR CONFERENCES/PRESENTATIONS (Partial List):

1. "Total Quality Practices of Firms in Emerging Economies: The Case of Trinidad and Tobago", GABER Conference, Orlando/Florida, May 22, 2014.
2. "Marketing Differentiation Synergies of High-Velocity Inventory Turns". Third Annual Global Academy of Business and Economic Research, Orlando, Florida, September 17-19, 2008.
3. "Six Sigma in Service Businesses: Barriers to Implementation and How to Overcome Them". ASAC, 30th Annual Conference, May, 2002.
4. "The Global Strategies of Service Businesses". ASAC, 30th Annual Conference, May, 2002.
5. Clarkson University, Potsdam, New York, Masters in Engineering and Manufacturing Management Program. Lecture: Strategic Management of the Supply Chain, June, 1998.
6. American Institute of Industrial Engineers (AIIE). Strategic Management of the Supply Chain. One-day workshop conducted for members of AIIE, Rochester, New York chapter, March 18, 1998.
7. "Creating Superior Value through Strategic Supply Chain Management". American Institute of Industrial Engineers, Annual Performance Improvement Conference, Rochester, New York, March 17, 1998.

8. "Globalization, Competition and the Management of Public Services", Montreal Urban Transport Commission, January, 1994. (Encore of November, 1993 presentation).
9. "Globalization, Competition and the Management of Public Services", Montreal Urban Transport Commission, November, 1993.
10. "Time-based Competition and Its Implications for Purchasing and Supply Management". Purchasing Management Association of Canada, Annual Conference, June, 1992.
11. "Time-based Competition and Purchasing and Supply Management in the Public Sector". Government of Ontario Purchasing Council, January, 1992.
12. "Crisis in World Class Manufacturing in Canada". Presentation to Management Team, Formica Canada, September, 1990.
13. "Why MRP-II Implementations Fail", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, April, 1990.
14. "How to Create the Continuously Improving Organization", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, March, 1990.
15. "Crisis in World Class Manufacturing in Canada", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, February, 1990.
16. "New Horizons in Logistics and Materials Management", Department of National Defense of Canada, May, 1989.
17. "Just-in-Time", One-Day Seminar, Purchasing Management Association of Canada, May, 1989.
18. "MRP-II, JIT and TQM: Beyond the Slogans", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Annual Conference, March, 1989.
19. "Management and World Class Manufacturing in Canada", Faculty Conference, School of Business Administration, University of Montreal, April, 1989.
20. "World Class Manufacturing: The Bedrock Concepts", Canadian Association for Production and Inventory Control (CAPIC), Division of the American Production and Inventory Control Society (APICS), Monthly meeting, April, 1988.
21. "MRP and the Strategic Position of Purchasing: Potential versus Reality", National Association of Purchasing Managers, Purchasing Research Symposium, University of Michigan, October, 1987.
22. "From the Conception of Advanced Production Technologies to Their Successful Exploitation and Management: The Contribution of the Manufacturing Strategy Framework", CQIP Conference, September, 1986.

PUBLICATIONS (CASES):

1. Bermudez Biscuit Company (BBC): Quality Crackers and Crix, 2011, 60 pages.
2. Process Control at Bermudez Biscuit Company, 2011, 51 pages.
3. Aluminum Corporation International (ACI). 2007, 3 pages.

4. European Mass Transit, Incorporated (EMTI), 2007, 6 pages.
5. International Aerospace, Inc. (IAI), 2007, 4pages.
6. New Technology Corporation (NTC). 2006, 8 pages.
7. Ontario Copper Products. 2009, 10 pages.
8. Plastic Containers, Inc., 2007, 3 pages.
9. Advanced Pharmaceuticals, Inc. (API). 2007, 8 pages
10. Global Pharmaceuticals Corporation (GPC). 2007, 13 pages.
11. Outdoor Sports, Inc., 2007, 5 pages.
12. Sports Equipment Manufacturing (SEM). 2007, 9 pages.
13. North American Paper Products (NAPP). 2007, 8 pages.

OTHER RESEARCH ACTIVITIES:

2011- Member of the Board of Editors, International Journal of Six-Sigma and Competitive Advantage.

CONSULTING ENGAGEMENTS (Partial list):

1. Postfax, Montreal, Canada. Consultant to top management on the implementation of TQM, JIT and MRP-II, 1999-2000.
2. Matthieu DaCosta Business Development Corporation. Consultant for the development of a five-year strategic plan, September, 1998.
3. Government of Quebec. Consultant to conduct feasibility study for the establishment of a business development fund to foster entrepreneurship in disadvantaged, immigrant communities, 1993.
4. Novartis, Canada. Consulting mandate to develop proposals for managing business planning for achieving flexibility and market responsiveness superiority in an MRP-II environment. Consulting report, 1996, 68 pages.
5. Novartis, Canada. Develop and conduct training sessions to implement proposals for managing business planning for achieving flexibility and market responsiveness superiority in an MRP-II environment,1996.

EXPERIENCE IN MANAGEMENT TRAINING, COURSE DEVELOPMENT AND SUPPORTING PEDAGOGICAL MATERIAL:

1980-1999 Development and delivery of seminars and training programs, University of Montreal Management Institute, ACEM and Hamilton Associates, in the following areas;

1. Materials and Inventory Management, Lean Inventory Systems
2. Material Requirements Planning
3. Management of the Master Production Schedule
4. Production Management for Top Managers
5. Manufacturing and Operations Strategy
6. Just-in-Time and Pull Systems
7. MRP-II
8. Structuring and Managing the Bill of Materials

9. Strategic Management of the Supply Chain

1980-Present Course Development work;

Bachelors level (third and final years):

1. Management of Service Operations
2. Manufacturing and Operations Strategy
3. Managing International Operations
4. Total Quality Management
5. Business Policy and Strategy
6. Human Behavior in Organizations
7. Entrepreneurship
8. Business Research Methods
9. Principles of Management

Masters Level (first and final year):

1. Production and Operations Management
2. Production and Inventory Planning and Control
3. Manufacturing Strategy for Engineers (McGill University)
4. Manufacturing and Operations Strategy
5. Management of Service Operations
6. Managing the Production Function
7. Managing Operations in a Global Context
8. Fundamental Engineering Concepts
9. Project Management
10. Global Logistics/Supply Chain Management I
11. Global Logistics/Supply Chain Management II
12. Total Quality Strategy and Six-Sigma
13. Management Engineering II

PhD Level (second year):

1. World Class Manufacturing
2. Seminars in Production/Operations Management
3. Development of the basic philosophy, orientation, general content and broad course outlines

Development of Pedagogical Material: PowerPoint Slides to support classroom teaching:

1. Human Behavior in Organizations; 350+ slides, Langston University, 1999.
2. Business Policy and Strategy; 300+ slides, Langston University, 1999-2001.
3. Business Research Methods; 150+ slides, Langston University, 1999-2001.
4. Global Logistics I; 550+slides, FAMU-SBI, 2001-2005
5. Supply Chain Management; 270+ slides, Hamilton Associates, 1999-2000.
6. Lean Inventories; 300+ slides, Hamilton Associates, 1999-2000.

7. Fundamental Engineering Concepts; 400+ slides, FAMU-SBI, 2001-2003.
8. Total Quality Strategy and Six Sigma; 400+ slides, FAMU-SBI, 2001-2005.
9. Management Engineering II; 200+ slides, FAMU-SBI, 2004-2005.
10. Production and Operations Management; 500+ slides, FAMU-SBI, 2007.

WRITTEN OUPUT FOR INTRAMURAL DISSEMINATION:

1. Proposals for Structuring the Core Curriculum at Langston University, School of Business, October 1999. 8 pages.
2. Proposals for the Creation of a Center for Entrepreneurial Studies and Research at Langston University, School of Business, November, 2000, 40 pages.
3. Report of the External Evaluator, Septennial evaluation of the Bachelor of Commerce program, Laurentian University, Algoma University and Universite de Hearst.

ON GOING RESEARCH INTERESTS:

1. Six-Sigma Strategies in Service Businesses
2. Lean Six-Sigma
3. Six-Sigma/Lean Six-Sigma in Healthcare industries
4. Strategic Management of the Supply Chain

REFERENCES: Available upon request

Curriculum Vitae

for

A. Dennis Ridley, Ph.D.

RESUMÉ

Dr. Alfred Dennis Ridley, Professor

Home address:
9004 Glen Eagle Way
Tallahassee FL 32312

E-mail: dridley@fsu.edu
Tel (850) 552-1324 Cell 556 3796
Fax (850)599-3533 or 668-5937

EDUCATION

1979-1982: Clemson University, Doctor of Philosophy
Major: Engineering Management
Dissertation: Spectral Analysis of the Electrical Power Market

1977: University of the West Indies (Trinidad), Master of Science
Major: Electrical Engineering--Power Systems Analysis
Thesis: Computer Optimized Economic Load Dispatch

1969: Middlesex University (England),
Higher National Diploma
Major: Electrical and Electronic Engineering

Computer languages: Fortran, Visual Basic.net
Competence: Expert developer of commercial professional software.

RESEARCH INTEREST:

Antithetic spectral time series analysis for biomedical data analysis, information feed forward process control, and forecasting. Global logistics expert, simulation& artificial intelligence systems.

HONORS AND ACTIVITIES

Visiting Professorships

Fall 1997, 2004, 2011 -Supercomputer Computations Research Institute, Florida State University.

Honors:

2006: Harvard University Business School Certificate: *The Art & Craft of Discussion leadership*.
2005: US Patent 6897773: Computer-powered wire(less) ultra-intelligent real-time monitor.
2004: Fulbright Senior Specialist Roster. Award: Create new course & dept. in Kharkov Univ. Ukraine.
2003: Inventor of Best Technology (computer-powered, ultra-intelligent, real-time, wireless heart monitor) presented by Florida A&M University students at Florida Int.
Univ.-Howard J. Leonhardt New Venture Challenge business plan competition.
1996: Tallahassee Democrat and Volunteer Big Bend - Volunteers of the year award.
1996: State University System of Florida teaching incentive program award.
1981: Omicron Delta Epsilon--graduate member(Honor Society in Economics)
1980: Omega Rho--member (International Honor Society)
1980: Organization of American States--Fellowship
1977: International Atomic Energy Agency --Fellowship
1976: Jamaica Institution of Engineers--member
1974: Jamaica Public Service Company--Scholarship
1965: Jamaica Industrial Government--Scholarship

Membership of professional / research/ civic organizations now or in the past:
Institute for Operations Research and the Management Sciences (INFORMS)
The International Institute of Forecasters
Institute of Business Forecasting
Production and Operations Management Society
American Statistical Association
Faculty associate - Supercomputer Computations Research Institute (FSU)
Economic Club of Florida
$\mathcal{E}^3$ - Excellence in education for Everyone (founding member - school choice organization)
Partners in Excellence (Leon County Schools)
Golden Eagle Country Club
Tallahassee Chamber of Commerce

PUBLICATIONS

Journals

Ridley, A. D., and Collins, J. A suggested evaluation metric instrument for faculty members at colleges and universities, *International Journal of Education Research*, forthcoming.

Ridley, A.D., and Ngnepieba, P. "Antithetic time series analysis and the CompanyX data," *Journal of the Royal Statistical Society,* A, 177(1), 2014, pp. 83-94.

Ridley, A. D. and Ngnepieba, P., "The Impact of Variance on Combining Antithetic Time Series," *Journal of Management and Engineering Integration*, 2014, pp.9-14.

Ridley, A.D., Ngnepieba, P., and Duke, D. "Parameter Optimization for Combining Lognormal Antithetic Time Series," *European Journal of Mathematical Sciences,* 2(2), 2013, pp. 235-245.

Ngnepieba, P., and Ridley, A. D. "Inverse correlated gamma variables," *Journal of Management and Engineering Integration*, 4(2), 2011, pp. 77-82.

Ridley, A.D. Desensitizing the forecast origin in: Process Control: Problems, Techniques and Applications, Editor: Samuel P. Werther, ISBN 978-1-6-61209-567-7, Nova Science, Publishers, Inc., 2011, ch 8, pp. Cross referenced in Journal of Current Issues in Finance, Business and Economics.

Ridley, A.D. and Ngnepieba, P. "The Multivariate Moving Window Spectral Method," Computers & Industrial Engineering, 56(1), 2009, pp11-18.

Ridley, A.D., Gist, W., Duke, D., Flagg, J. "The Predictive Ability and Usefulness of Accounting Operating Cash Flows," *American Journal of Finance and Accounting*, 1(2), 2008, pp. 169-193.

Ridley, A. D. and Duke, D. "Moving Window Spectral Model Based Statistical Process Control," *International Journal of Production Economics,* 105(2), February 2007, pp. 492-509.

Ridley, A.D. "The Univariate Moving Window Spectral Method," *Computers & Industrial Engineering*, 45(4), 2003, pp. 691-711.

Ridley, A.D. "Advances in Model Based Dual Chart Process Control." *International Journal of Industrial Engineering,* 8(1), 2001, pp. 45-51.

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2015: Ridley, A D. and Collins, J., "A Professorial Evaluation Metric," *International Academy of Business and Public Administration Disciplines conference*, Orlando, FL, USA, January 2-5, 2015.

2014: Ridley, A. D. and Ngnepieba, P., "Exponentially derived antithetic random variates," *45th annual Decision Sciences conference*, Tampa, FL, USA, November 22-25, 2014. Forthcoming.

2014: Ridley, A D. and Collins, J., "A Professorial Evaluation Metric," *Decision Sciences annual conference*, Tampa, FL, USA, November 22-25, 2014.

2014: Ridley, A. D. and Ngnepieba, P., "The Impact of Variance on Combining Antithetic Time Series," *20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 24-26.

2012: Ridley, A. D. and Ngnepieba, P., "Optimal Parameters for Combining Antithetic Time Series," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012.

2012: Foree, M., Teralyn Seabrook, T, Wilson, K., Ridley, A.D., "Crepe Vine's Live Case Study," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28,2012.

2012: Corner, B., Glenn, J., Thomas, B., Ridley, A.D., "Leola's Crab Shack Live Case Study," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28,2012.

2012: Bryan, S., Miles, J., Mosley, M., Okon, A., Ridley, A.D., "Auntie Anne's Live Case Study," *18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28,2012.

2011: Ngnepieba, P., and Ridley, A. D. "Inverse correlated gamma variables," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Ridley, A. D., Sutterfield, J.S., Crawford, D., Price,T., Curry, Q., and Clark, B., "Local Business Live Case Analysis & Simulation: Ujama Embroidery and Design," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Brown, J., Noble., Ranish., Lones, L., Sharp, R., Curry, Q. and Ridley, A. D. "Rita's Italian Ice Live Cse Study, *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Abrams, T., Betts, C., Hill, R., Kirk, S., Curry, Q. and Ridley, A. D. "Cravings Truck Live Case Study," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2011: Crafton, J., George, V., Wade, J., Curry, Q. and Ridley, A. D. "Fat Sandwhich Live Case Study," *17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30.

2009: Paper presentation "Entrepreneurship curriculum at SBI," 13th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, Florida, USA, on July 10-13.

2009: Paper presentation "The Multivariate Moving Window Spectral Analysis," *1st Annual Florida A & M University Research Summit*, Tallahassee, FL, March 26-27.

2008: Paper presentation "From Theory to Practice: "A Strategy for University Campus-Wide Entrepreneurship Education and Community Transformation, *Global Academy of Business & Economic research conference*, Hilton, Walt Disney World Resort, Orlando, Florida, September 17 & 18, 2008.

2007: Paper presentation "Univariate vs. Multivariate Moving Window Spectral Analysis," 11th World Multi-Conference on Systems, Cybernetics and Informatics, Orlando, FL., USA, July 8-11, 2007.

2006: Paper presentation "Common cause Special cause vital signs charts," *Conference of the Portland International Center for the Management of Engineering and Technology (PICMET),* Istanbul, Turkey, July 8-13, 2006.

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2003: Paper presentation "Single versus dual process control charts," *Production and Operations Management Conference: POMS 2003,* Savannah, Ga. April 4-7, 2003.

2002: Paper presentation "The Economic Benefit of Dual Statistical Process Control Charts," *11th International Conference on Management of Technology,* IAMOT 2002, Miami, Fl. March 1-14, 2002.

2001: Paper presentation "Pulse Oximetry: an mws model," *Industrial,Engineering & Management Systems conference,* Cocoa Beach, Fl. March 5-7, 2001.

2000: Seminar: "Moving Window Spectral Time Series Analysis & Forecasting: Theory and Applications," *Financial Mathematics Seminar, Dept. of Mathematics, Florida State University*, January 25, 2000.

2000: Paper presentation "Statistical Process Control: an mws model," Industrial, Engineering & Management Systems conference, Cocoa Beach, Fl. March 13-15, 2000.

1999: Paper presentation: "The Predictive Ability and Usefulness of Accounting Operating Cash Flows," South Eastern conference of the American Accounting Association, Atlanta Ga, April 8-10, 1999.

1999: Paper presentation: "Feedforward Process Control: an mws model," 10th annual Production & Operations Management Conference, March 20-23, 1999, Charleston, South Carolina.

1999: Seminar: An Antithetic Bias Filter for Time Series Models, Theory & Applications. Institute for Computational Research, Department of Physics, Florida A&M University, Tallahassee, Florida. March 16, 1999.

1999: Seminar: Antithetic Time Series Analysis & Forecasting, Theory & Applications. Supercomputer Computations Research Institute, Florida State University, Tallahassee, Florida. February 23, 1999.

1997: Paper presentation: "Antithetic Lognormal/Normal Random Variables," 21st International Conference for Computers and Industrial Engineering, , March 10-21, 1997, San Juan, Puerto Rico.

1995. Paper presentation: "Optimal Weights for Combining Antithetic Forecasts. Institute for Operations Research and Management Science, National meeting, Oct 29-Nov 1, 1995, New Orleans, Louisiana.

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1994: Paper presentation: "Combining Global Antithetic Forecasts," *Production & Operation Management conference*, Oct 8-11, 1994. Crystal City, Virginia.

1990: Paper presentation:"Power Transformations and Combining Global Antithetic Forecasts," *Operations Research Society/The Institute of Management Science joint National Meeting,* May 7-9, Las Vegas, Nevada.

1988: Paper presentation: "Counterbalancing--An Approach to Combining Forecasts." *International Association of Business Forecasting Annual Conference,* October 20-21, Bethesda, Maryland.

1987: Paper presentation: "Optimal Correction of Heteroscedasticity in Color TV Purchase Rates." *Operations Research Society of America/The Institute of Management Sciences, Joint National Meeting,* , October 25-28, 1987, St. Louis, Missouri.

1987: Paper presentation: "Temporal Relationships Between Real .Gross National Product & Electricity. *Washington Consortium of Universities Research Forum,* February28, Washington, D.C.

1987: Paper presentation: "A Socio-economic study in motivation and it applicability to academic performance." *Washington Consortium of Universities Research Forum,* February 28, Washington, D.C.

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1986: Paper presentation: "The Use of On Balance Volume in Forecasting security prices." *Washington, D.C. Consortium of Universities Research Forum,* April 19, 1986, Washington, D.C.

1985: Paper presentation:"The Univariate Moving Window-Spectral Algorithm." *20th International Atlantic Economic Conference,* Aug 29-Sept 1,1985. *Washington, D. C.*

1982: Paper presentation: "Spectral Analysis of the Electrical Power Market." *Operations Research Society of America/ The Institute of Management Sciences. Joint National Meeting*, October 25-27, 1982, *San Diego, California.*

1981: Paper presentation: "A Spectral Analysis of the Power Market in South Carolina," *Seventeenth Annual Meeting, S.E. Chapter, The Institute of Management Sciences,* Oct 1981, Atlanta, Georgia.

Working papers (Date first created, Title, Journal prepared for (bold=submitted)):
2014: **Separating Internal Biological effects from External Environmental effects** [American Scientist or Circulation]
2014: **Separating Fact from Artifact** [Royal Society Open Science]
2014: **General Theory of Antithetic Time Series** [Computational Statistics]
2014: **On the variance of antithetic time series** [Technometrics]
2014: Exponential antithetic random variates [JRSS-c]
2014: Antithetic power transformed random numbers in computer simulation [Decision Sciences, J. of Computational Physics, Physical Review Letters, PNAS]
2011: An Entrepreneurship Strategy for a Russian Curriculum
2011: Advances in antithetic times theory [International journal of forecasting]
2011: Developing an Entrepreneurial Mindset in Management Education [Entrepreneurship Research Journal]
2000: Common cause special cause biomedical charts (case + instructor's manual)[*Decision. Sc.*]
1999: False alarms in auditing seasonal cash flows (case + instructor's manual)[*Decision. Sc.*]
1998: Common cause special cause statistical process control (case + instructor's manual)[*Decision. Sc.*]
1998: Pro-active statistical process control (case + instructor's manual)[*Decision. Sc*]
1995: Counterbalancing is enhanced by variable weights. [*Decision. Sc.*]
1994: Education is worth a try. [*NER*]
1990: Power transformations and combining global antithetic forecasts. [*JOF*]
1988: MWS color TV sales forecasting [*JMR*].
1986: Color TV industry sales time series analysis and forecasting[*JOBF*].

PROFESSIONAL AND ACADEMIC EXPERIENCE

Academic experience:

1987: Professor of Global Logistics, Production/Operations Management, Management Science, Operations Research & Statistics.
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Courses taught:

Spring 2015 – Management Science.

Fall 2014 – Management Science.
Summer 2014 – Production Management, Management Science.
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Fall 2013 – Management Science.
Summer 2013 – Production Management, Supply Chain Management I.
Spring 2012 – Management Science.

Fall 2012 – Management Science.
Summer 2012 – Statistics.
Spring 2012 – Supply Chain Management II, Management Science.

Fall 2011-Research Sabbatical-Department of Scientific Computing, Florida State Univ.
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Fall 2010 – Global logistics II, Management Science.
Summer 2010 - Management Science.
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Spring 2009 - Management Science, Production/Operations Mgmt.

Fall 2008 - Management Science, Production/Operations Mgmt.
Summer 2008 - Management Science.
Spring 2008 - Management Science, Production/Operations Mgmt.

Fall 2007 - Management Science, Production/Operations Mgmt.
Summer 2007- Management Science, Graduate Production/Operations Mgmt.
Managing Operations–Ghana Inst. for Management & Public Admin. (MBA program).
Spring 2007- Management Science.

Fall 2006 - Management Science, Management engineering II

Summer 2006- Management Science, Production/Operations Mgmt.
Spring 2006- Global logistics II, Production/Operations Mgmt.

Fall 2005-Global logistics I, Production/Operations Mgmt.
Summer 2005- Management Engineering I, Production/Operations Mgmt.
Spring 2005- Global logistics II, Production/Operations Mgmt.

Fall 2004-Research Sabbatical-School of Computational Science, Florida State Univ.
Summer 2004-Logistics, Kharkov University, Ukraine.
Summer 2004-Production/Operations Mgmt, Management Science.
Spring 2004-Production/Operations Mgmt, Management Science.

Fall 2003-Production/Operations Mgmt, Management Science.
Summer 2003-Production/Operations Mgmt. Management Science.
Spring 2003-Production/Operations Mgmt, Management Science.

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Summer 2001-Production/Operations Mgmt. Management Science.
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Fall 2000-Production/Operations Mgmt, Statistics.
Spring 2000-Production/Operations Mgmt, Statistics

Fall 1999-Production/Operations Mgmt, Statistics.
Summer 1999-Production/Operations Mgmt.
Spring 1999-Production/Operations Mgmt, Statistics

Fall 1998-Production/Operations Mgmt, Statistics.
Summer 1998-Production/Operations Mgmt.
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Spring 1997-Production/Operations Mgmt, Statistics

Fall 1996-Production/Operations Mgmt, Mgmt Science
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Fall 1995-Production/Operations Mgmt, Mgmt Science
Summer 1995-Mgmt Science

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Summer 1994-Mgmt Science
Spring 1994-Production/Operations Mgmt., Mgmt. Science

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Summer 1992-Mgmt Science
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Fall 1991---Production/Operations Mgmt., Mgmt. Science
Summer 1991-Production/Ops Management (graduate),
Production Management/Operations,
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Spring 1991--Production/Operations Mgmt., Mgmt. Science

Fall 1990---Production Mgmt., Mgmt. Science
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Production/Operations Mgmt., Mgmt. Science.

Fall 1988---Global Logistics I (graduate), Production/Operations Management
Spring 1988-Management Science, Introduction to Business Systems.
Fall 1987---Mgmt. Science, Production/Operations Mgmt.

1984-1987: Assistant Professor of Information Systems and Analysis, Howard University

Courses taught:
Fall 1986---Computer Simulation and Information Systems, Prod. & Ops. Mgmt., Quantitative Analysis III (graduate POM)
Fall 1984 to Spring 1986--Production & Operations
Management, Quantitative Analysis III (graduate, POM)

1982-1984: Assistant Professor of Decision Sciences George Mason University

Courses taught:
Summer 1984-Applied Statistical Analysis, Quantitative Methods in Managerial Analysis.
Spring 1984-Business Decision Models, Quant Methods in Managerial Analysis (graduate)
Fall 1983---Applied Statistical Analysis, Quant Methods in Managerial Analysis (graduate)
Summer 1983-Business Decision Models, Quant Methods in Managerial Analysis (graduate).
Spring 1983-Forecasting Methods in Management, Business Decision Models, Quantitative Methods in Managerial Analysis (graduate).
Fall 1982---Applied Statistical Analysis.
Summer 1982-Business Decision Models.

1980-1982: Lecturer--part-time faculty Clemson University
Courses taught:
Spring 1982-Statistical Methods (Department of Mathematical Sciences-MTHSC 301 Statistics with Calculus)
Fall 1980 to Fall 1981--Computer Utilization (MGT DEPT-IM 299)

1979-1980: Graduate Assistant, Industrial Management Department, Clemson University

1975-1976: Part-time teaching (night), Economics Department, University of the West Indies (Mona Campus, Jamaica)
Courses taught: Mathematics

Professional experience:

1976-1979: Manager--System Planning
Jamaica Public Service Co. (Jamaica)
--Electric Utility
--Feasibility studies related to planning new generating, transmission and distribution facilities for financing by Inter-American Development Bank. Other studies related to protection of and economic operation of the power system; including load flow, short circuit, stability and economic load dispatch. Liason with primary other utilities, government agencies, and consultants.

1979: Jamaica government participant in USAID sponsored (1 Month) discussions at United States Department of Energy and tour of prominent solar energy research and manufacturing organizations throughout the sun belt.

1977: Nuclear Power Planning Study for Government of Jamaica, conducted at International Atomic Energy (3 months) Agency, Vienna, Austria.

1975-1976: System Planning Engineer, Jamaica Public Service Co. (Jamaica).

1970-1975: Design Engineer, Jamaica Public Service Co. (Jamaica) Electric utility:
--Transmission and substation design
--Relay coordination

1965-1970: Student trainee, Alcan Industries, Ltd. (England)
--Aluminum fabrication plant

SERVICE TO PROFESSIONAL ORGANIZATIONS

2014: Session chairman for the *45th annual Decision Sciences conference*, Tampa, FL, USA, November 22-25, 2014.

2014: Referee. Research "Development of an integrated cost management system for small business 1169," *Proceedings of the 20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 23-26, 2014.

2014: Referee. Research "Layoffs as an Effective Restructuring 1141," *Proceedings of the 20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 23-26, 2014.

2013: Referee. Research "Effects of Engineering Student Grades on Graduation. Paper 1113," *Proceedings of the 20th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 23-26, 2014.

2013: Referee. Research "Engineering Management Creating Individuals with a Mind for Business and a Heart for Engineering. Paper 1003," *Proceedings of the 19th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 24-27, 2013.

2012: Referee. Research "A Global Analysis of Sustainable Energy."*Proceedings of the 18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012.

2012: Referee. Research "The Effect of Religion upon Consumer Behavior."*Proceedings of the 18th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 25-28, 2012.

2012: Session chairman for the 18th International Conference on Industry, Engineering, & Management Systems, Cocoa Beach, Florida, USA, March 25-28, 2012.

2011: Referee. Research "Applications of Data Mining in Pharmaceutical Industry- Paper :166."*Proceedings of the 17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30, 2011.

2011: Referee. Research "The Orchestrator of History's Largest Ponzi Scheme - Paper #:662."*Proceedings of the 17th Annual International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL., USA, March 27-30, 2011.

2011: Session chairman for the 17th International Conference on Industry, Engineering, & Management Systems, Cocoa Beach, Florida, USA, March 28-30, 2011.

2009: Session chairman for the *13th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2009),* Orlando, Florida, USA, July 10-13, 2009.

2008: Session chairman for the *Global Academy of Business & Economic research conference*, Hilton, Walt Disney World Resort, Orlando, Florida, September 17 & 18, 2008.

2008: Referee. Research "Interpreting the out-of-control signals of the MEMWA control chart." *International Journal of Production Economics.*

2006: Referee. Research "A Hierarchy of Adaptive x-bar Control Charts." *International Journal of Production Economics.*

2006: Session chairman for the *Conference of the Portland International Center for the Management of Engineering and Technology (PICMET),* Istanbul, Turkey, July 8-13.

2003: MootCorp Fellow - University of Texas (Austin).

2003: Chairman for "Quality Management and Six Sigma Session Sa-3," at the Production and Operations Management Conference: POMS 2003, Savannah, Ga. April 4-7, 2003.

2003: Inventor of Best Technology presented by Florida A&M University students at Florida International University - Howard J. Leonhart New Venture Challenge, Clark Atlanta University - Kauffman foundation, and University of Texas (Austin) - Kauffman foundation business plan competitions.

2003: Referee. Research " Lagrangian Relaxation and Column Generation Algorithm for Stochastic Unit Commitment Problem." *Computers & Operations Research.*

2002: Referee. Research "Testing Process Index Cp Based on Multiple Samples." *International Journal of Industrial Engineering.*

2001: Referee. Research "A Proposal for a Solution to the Optimal Power Flow Problem." *Computers and Operations Research*, Pergamon.

2000: Referee. Research paper "Multi-level decomposition approach for design of power transmission systems," *Computers and Operations Research*, Pergamon.

1999: Session chairman for the 10th annual Production & Operations Management Conference, March 20-23, Charleston, South Carolina.

1998: Referee. Research paper (#98S-16-3)- "International Logistics Operations of MNCs." *Review of Business*, Business Research Inst. St. John's Univ., Jamaica, NY.

1997: Referee. Research paper (#97F-6-3)- "Operational Competitive Requirements for the 21st Century." *Review of Business*, Business Research Inst. St. John's Univ., Jamaica, NY.

1997: Referee. Research papers submitted to session: "Computer Supported Collaborative Work," *6th, Industrial Engineering Research Conference*, May 17-18, 1997, Miami Beach, FL.

1995: Referee. Research paper #95/141 "Forecasting using autocorrelated errors and multicollinear predictor variables." *Computers and Industrial Engineering*.

1994: Member of Middle States Association visitation team to accredit Seton Hall University.

1993: Referee. Research paper #1394- "VARMAX-modeling of blast furnace process variable." *European Journal of Operational Research*.

1992: Business School expert member of Middle States Association visitation team to accredit State University of New York at Brockport. March 8-11.

1990: Referee. Research paper (#90S-37)- "Forecasting Electric and Power data: A comparison of methods." *Review of Business*, Business Research Inst. St. John's Univ., Jamaica, NY.

1990: Chairman for "Forecasting Session MC2" *Joint ORSA/TIMS National Conference*. May 7-9, Las Vegas, NV.

1989: Referee (89F-10-3). Research paper-"Effective Management of the Older Worker: A Management Issue for the 1990s" (89F-10). *Review of Business*, Business Research Institute. St. John's University, Jamaica, NY.

1988: Business School expert member of Middle States Association visitation team to accredit Rutgers University. April 10-14.

1987: Chairman for "Forecasting Session TC03," Joint ORSA/TIMS National Conference. October 25-28. St. Louis, MO.

COMMUNITY SERVICE

2103: Attend accreditation conference, September 26-28, Tunica, Ms.
2013: Judge – E-stem business plan competition.
2000-2011: Faculty advisor – University entrepreneurs club
1993-94: Member of Leon County Schools, Fl, committee on PlanB of the gifted.
1987: Science fair judge, Killearn Lakes Elementary School, Tallahassee, Fl.
1987: Science fair judge, Maclay Middle School, Tallahassee Fl.
1989-91: Member-Board of Directors of the American Red Cross (Tallahassee FL)

1987: GMAT preparation help seminar, Howard University (86,87).
1986: Science fair judge, Thomas Jefferson High School for Science & Technology, Virginia.
1978: Lecture on project management. USAID/Jamaica ministry of finance seminar.
1977: Lecture on feasibility studies relating to generation expansion planning, The Jamaica Institute of Engineers.
1977: Lecture on economic conductor sizing. Organization of American States/University of the West Indies/JPS seminar.

CONSULTING

1988: (Summer 3 Months) Technical services & Process control consultant-Great Northern Nekoosa Packaging Corp. Special project: Design of mill wide process information system to include data element relationship catalog, data acquisition & computer automation, data analysis and correlation & information feed forward system.

1986: (Summer 3 Months) Operations Research Analyst-RCA Corp. Special Project: seminar presentations and implementation of color television industry sales time series analysis & forecasting methodology.

1986 & 1987: 2 Speaking Engagements: Presentation on statistical forecasting. American Gas Association annual seminars.

FAMU Advisory Reviews for Academic Program Proposals

The Dean of the School of Business and Industry has reviewed the proposal for the

Master of Science in Supply Chain Management and recommends it for consideration.

DocuSigned by: Shawnta Friday-Stroud
710AAF8467E54C6...

4/26/2016

Dean or Chair/Director of the academic unit — Date

The College Curriculum Committee of the College/School in which the program resides has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by: Saundra Drumming
31F791108B39469...

4/26/2016

Chair, College Curriculum Committee — Date

The University Program Authorization Review Committee (UPARC) has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by:
7E6E7C4C4C304E5...

4/25/2016

Chair, UPARC — Date

The Curriculum Committee of the Faculty Senate has reviewed the proposal and affirms that it is consistent with the policies of that Committee.

DocuSigned by: Neil James
A6226C6B3D3E479...

4/25/2016

Chair, Curriculum Committee of Faculty Senate — Date

The Faculty Senate has reviewed the proposal and affirms that it is consistent with the policies of the full body and recommends approval.

DocuSigned by: Bettye Grable
2D17286CD79F4F9...

4/26/2016

President, Faculty Senate — Date

Graduate Programs Only:

The Chair of the Graduate Council has reviewed the proposal and affirms that it is consistent with the policies of that Council.

DocuSigned by: David Jackson
C9D6250E10D2498...

4/26/2016

Chair, Graduate Council

4/29/16

Signature of Provost and Vice President for Academic Affairs — **Date**

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: VIII

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: New Faculty Class Codes

Rationale: Pursuant to Article 28.06 of the Collective Bargaining Agreement (CBA), the FAMU Board of Trustees is required to approve any new class codes and determine whether they should be In-Unit or Out-Of-Unit. The United Faculty of Florida (UFF) will be notified as required by the CBA. These new class codes will enable academic units to hire faculty on research grants in the capacity of Assistant, Associate, and Full Professor without the requirement of earning tenure. The new class codes are:

Non-Tenure Earning Professor of Research	9080
Non-Tenure Earning Associate Professor of Research	9081
Non-Tenure Earning Assistant Professor of Research	9082

Upon approval, we anticipate implementing the new class codes on July 1, 2016.

Attachment: None.

Recommendation: It is recommended that the Florida A&M University Board of Trustees approve the new faculty class codes.

Florida Agricultural and Mechanical University
Board of Trustees
ACTION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: IX

Item Origination and Authorization				
Policy ____	Award of Bid____	Budget Amendment____	Change Order____	
Resolution____	Contract____	Grant____	Other____	

Action of Board				
Approved____	Approved w/ Conditions ___	Disapproved ___	Continued____	Withdrawn ____

Subject: **Request for Leave Without Pay – Annette Jackson**

Rationale: In accordance with BOT Policy Number 2005-21, the University will consider requests for unpaid leave of absence from regular employees who have at least one year of continuous service. The University grants leave of absence for the following reasons: parental, medical, educational, military service, and personal.

The leave will allow Dr. Jackson time to serve out her term as Fulbright Scholar for academic year 2016 -2017.

Attachment: Request for Leave of Absence

Recommendation: It is recommended that the Board of Trustees approve the Request for Leave Without Pay from August 8, 2016 through May 5, 2017.

FLORIDA A&M UNIVERSITY
REQUEST FOR LEAVE OF ABSENCE

RECEIVED
OFFICE OF ACADEMIC AFFAIRS
16 APR 27 AM 10:25

1. Complete the information below:

Name Annette S. Jackson Empl ID# 100123121

Dept/Coll/School Management/Marketing, SBI Campus Ext. 412-7735

2. Check the appropriate pay plan and contractual period:

( ) USPS
( ) A&P
(X) Faculty
( ) Executive Service

(X) 9 month
( ) 10 month
( ) 12 month

3. Check the type of leave of absence that is being requested:

( ) Military – A copy of official military orders must accompany this request.

( ) Parental – A doctor's statement certifying the anticipated period for leave of absence must accompany this request.

( ) Medical ( ) Yes- FMLA ( ) No-FMLA

(X) Other Leave of Absence- Leave without pay for up to 12 months.

4. Indicate anticipated beginning and ending dates for the leave of absence:

Beginning Date August 8, 2016 Ending Date May 5, 2017

EXPLANATION (Use additional sheets if necessary)
Requesting leave to serve out term as Fulbright Scholar for the academic year, 2016-2017.

Employee's Signature — April 27, 2016 Date

Supervisor's Signature — April 27, 2016 Date — (✓) Approved ( ) Disapproved

Dean's/Director's Signature — 4/27/16 Date — (✓) Approved ( ) Disapproved

President/Provost/Vice President's Signature — 4/27/16 Date — (✓) Approved ( ) Disapproved

Use of leave on an intermittent basis may be authorized during a leave of absence due to parental, military or medical purposes. To request the use of leave on an intermittent basis, please complete the Intermittent Leave Use Chart on back of this form.

HR_TL-3(a)
Revised 10/06

REQUEST FOR INTERMITTENT USE OF LEAVE

By completing the front of this form you have requested a leave of absence. If you also wish to exercise your option to use leave on an intermittent basis, please complete the chart below:

INTERMITTENT LEAVE USE CHART

Instructions: List the biweekly pay period*, the type of leave requested and the number of hours of leave that will be used on an intermittent basis. Leave may be charged to the following categories:

Annual – May be used for any type of leave of absence
Sick – May be used for military, parental, and medical leaves of absence.
Compensatory – (USPS employees only) May be used for any type of leave of absence.

NOTE: Leave will be charged each biweekly pay period according to the schedule indicated below unless written notification is made to the Personnel Office to discontinue the application of intermittent leave.

Biweekly Pay Period	Leave Category	Number of Hours

Employee's Signature _____ Date _____

*A biweekly pay period schedule can be obtained from the University Personnel Office

Florida Agricultural and Mechanical University
Board of Trustees
INFORMATION ITEM

Academic Affairs Committee
Date: May 11, 2016
Agenda Item: X

Subject: Division of Academic Affairs Update

Summary: Provost's remarks.

Attachment: Information – Undergraduate Progress to Degree Process

~~Guidelines~~

Undergraduate Progress to Degree Process

~~R~~Reason for Process.

Florida A&M University (FAMU) provides a distinctive and exceptional student learning experience from enrollment through graduation. This process is intended to assist full-time students in maintaining satisfactory academic progress towards the successful completion of ~~and in completing~~ a degree program ~~quickly and efficiently~~. The initiatives in this process are also designed to assist students in minimizing costs by avoiding Excess Credit Hour surcharges and by maximizing opportunities to maintain federal student aid.

~~The following initiatives are aimed at assisting full-time students in their progress toward earning a degree in an efficient manner while effectively meeting their academic goals.~~

Individualized Plans of Study or Degree Maps.

All undergraduate students will receive a~~n individualized~~ degree ~~-~~ plan outlining their program of study.

Degree Progression.

Each student is required to meet with an academic advisor at a minimum once every semester ~~twice annually~~ to develop a plan of study appropriate to the student's academic goals. The plan of study should be used as a tool for guiding students towards ~~efficient~~ graduation. The FAMU Academic Advisement Module~~,~~ will be used as the official tool to document degree plan progression and completion.

F~~F~~our-Year Plan of Study.

All First-Time in College (FTIC) students are projected to graduate in four years (nine semesters or eleven semesters when including summer(s)). ~~(~~Degree programs above 120 hours~~,~~ that have Board of Governors approval~~,~~ will have a pre-determined time frame as described by the appropriate D~~d~~epartment.~~)~~ All FTIC students will have a~~n assigned~~ plan of study after meeting with an advisor. Students who wish to change their major must meet with an advisor to prepare another plan of study. (See Change of Major)

Two-Year Plan of Study for Transfer Students.

Florida College System (FCS) and dual-enrolled students from a~~n~~ FCS institution entering with an Associates of Arts (AA) degree are projected to graduate in two years (four semesters or five semesters when including summer). These transfer students will have an assigned two-year plan of study after meeting with an advisor. Transfer students must meet all degree program common prerequisite requirements in order to ~~efficiently~~ complete the two-year degree plan. FCS students should meet with an advisor for this purpose no later ~~b~~than ~~y~~ the end of their first semester at FAMU. Students who wish to change their major must meet with an advisor to prepare another plan of study. (See Change of Major)

Pre-Graduation Degree Audit.

Students are required to meet with an academic advisor to complete a Pre-graduation Degree Audit at the conclusion of their fourth term or upon ~~reaching~~ 60 credit hours attempted, ~~(~~ whichever is earlier~~)~~. The Pre-graduation Degree Audit is intended to advise the student of all the courses needed for graduation, and to confirm that all outstanding courses are included in the remaining degree plan. Registration holds will be placed on the records of students with 60 credit hours or more who have not completed the Pre-graduation Degree Audit.

Mandatory Student Advisement and Graduation Audit. All students who have earned 90 or more semester credit hours must see an academic advisor for a Mandatory Graduation Audit. After the audit, the academic advisor shall place written documentation in the student's file, which shall include a report of all satisfied and outstanding degree requirements (including General Education and CLAST) and the curriculum that governs the student's program of study.

Major Selection.

~~1.~~ 1. All freshmen entering the ~~u~~University must select a major. If the student wants to change ~~their~~his or her major, or was ~~were~~ initially undecided ~~on a major or undecided~~ but now has ~~and have~~ selected a major~~one~~ prior to or during the New Student Orientation, ~~.~~ the student ~~He or she~~ must complete an Undergraduate Major Change Form (Major Change Form). The Major Change Form ~~and~~ must be submitted to the admissions office prior

to the student's ~~your~~ first semester of enrollment. Once a student has enrolled in his or her first semester, the student must follow the Declaration or Change of Major process.

2. ~~T~~Transfer students who have earned 48 credit hours or more are required to select a major or a pre-major at the time of admission to FAMU.

~~2.~~

Declaration of Major.

~~1.~~ Undecided Students are required to ~~will~~ declare a major during their first Spring Semester of enrollment at the U~~u~~niversity. The minimum requirement to declare a major at FAMU is to have earned (or passed) 12 credit hours.

~~1.~~

2.

~~2.~~ All ~~Undecided~~ undecided students who have attempted 24 credit hours or more and have not declared a major will have a registration hold placed on their enrollment management account ~~to impede further registration~~ until a major is declared~~a major is declared~~.

3.

All u~~U~~ndecided students who were admitted prior to the Summer of 2015 must declare a major upon attempting 48 credit hours.

~~3.~~

Change of Major.

~~1.~~ 1. Change of majors will be accepted at the beginning of the academic year for all non-limited access programs. Students may transfer from one department to another or from one school or college to another by completing the Change of Major Form and obtaining appropriate signatures to include Academic Advisor, Department Chairs, and Deans. Prior to requesting a change of major, a student must:

~~a.~~ a. Consult with his or her ~~your~~ academic advisor. Discuss if change will result in excess credit hour surcharges.

~~b.~~ b. Review major requirements.

~~c.~~ c. Review your d~~D~~egree r~~R~~equirements using the Academic Advisement Module What-If Report. This report shows how certain courses can apply towards degree requirements for a different/additional major. Access this report from your IRattler Student Center - Academics section, in the "other academic dropdown box," by selecting What-If Report.

~~d.~~ d. Submit completed Change of Major Form to the new department.

2. ~~*Signatures required as followed: Academic Advisor, Department Chairs & Deans~~

~~2.~~ The following baccalaureate level academic programs are limited access and have selective admissions criteria to limit enrollment:

~~a.~~ a. Architecture, Journalism, Public Relations and Nursing are approved limited access programs;

~~b.~~ b. Teacher Education programs limit access according to requirements in Florida S~~s~~tatute~~s~~; and

c. Pharmacy limits access as a program that awards a graduate professional degree.

3. ~~*~~Health Science/Occupational Wellness, Pharmacy and Social Work require applicants to complete departmental applications. Consult the FAMU catalog and academic department's website for specific program requirements.

~~3.~~ ~~4.~~ Students may change their major once per semester. Students are not permitted to change majors after they have earned 90 credit hours unless the new major can be completed within the same time-frame as the previous major (t~~T~~otal 8-12 Semesters).

5.

FTIC students who have earned 89 credit hours or less at FAMU may be allowed to change majors provided the~~y~~ students:

~~4.~~

a. Have a minimum cumulative GPA of 2.0. * Some majors, especially limited access programs, may require a higher ~~a~~ GPA. Please consult the course catalog for those requirements.

b. Can complete the major within a total of 11 semesters at FAMU (an additional semester may be granted for majors requiring greater than 120 credits or that require lockstep course sequences).

~~b.~~

Administrative Major Change.

a. A student may not remain in his or her selected major if he or she:
   i. Fails to meet the minimum GPA requirements as required by the current Major;
   ii. Fails to successfully complete any qualifying exams;
   iii. Earns a grade of D or F in two or more pre-requisite courses; or
   iv. Earns two grades of D or F in a required major course attempted;

b. The student will be placed on a Change of Major Hold and will be required to:
   i. Consult with his or her academic advisor;
   ii. Enroll in a mandatory career developmental course;
   iii. Identify a major that can be completed within a total of 8-12 semesters at FAMU; and
   iv. Complete the change of major process.

~~iv.~~

Dual Major.

1.

~~1.~~ A student may declare a Dual Major or a Dual Degree after earning 45 credit hours. A student may not declare a Dual Major or a Dual Degree after earning 90 credit hours unless the degree can be completed by the projected graduation date of the first major or degree. If a second major or degree cannot be completed by the projected graduation date of the first major or degree, the student must graduate and reapply to the University.

2. A student is not permitted to add a minor after having earned 90 hours unless the requirements for the minor can be completed within the same time-frame as the declared major. A minor may only be awarded in conjunction with the award of the major degree. To facilitate efficient progress toward degree, a student may not declare more than two minors.

~~2.~~

3. Students are permitted to declare dual majors by obtaining a signed memorandum from the second major department chair indicating that the student has been accepted into the program. Students must satisfy graduation requirements for each major in order to receive both degrees.

Grade Forgiveness ~~(Currently Existing Policy)~~.

An undergraduate student may improve his/her grade point average at Florida A&M University by repeating an undergraduate course (1000-4999 level). Only the grade and grade points received in the final attempt shall be used in computing the student's cumulative grade point average. A student must petition to have this policy applied. Only three such requests are available to the student during the student's undergraduate career. A student may apply the Grade Forgiveness Policy to the same course up to ~~the limit of~~ three times, or apply the forgiveness policy to three different courses. Under extenuating circumstances~~,~~ with compelling justification, a student's academic Dean may recommend an exception, ~~(~~limited to two additional attempts~~)~~. All grades earned after exceeding the repeat limits will be used in computing the student's cumulative grade point average. All attempts for a given course and all grades will remain on the student's transcript. Excess hours are calculated on all attempted hours, including those for which the grade is forgiven.

For Financial Aid purposes, all grades and attempts are included in the calculating of the GPA. There is no grade forgiveness for financial aid. See Financial Aid~~,~~.

In accordance with accreditation requirements, FAMU-FSU College of Engineering does not allow grade forgiveness, and therefore, the policy cannot be applied to FAMU-FSU College of E~~e~~ngineering students. This also pertains to students who change majors to the College of Engineering.

The Grade Forgiveness Policy cannot be applied for students~~;~~:

- ~~-~~In Pharmacy during professional years;
- Taking courses with numbers 5000-8999 (graduate level courses); or
- After the degree has been conferred.

Repeat Course Policy.

An undergraduate student may only repeat a major required course twice. A student may repeat a maximum of 15 credit hours during the student's undergraduate career. Failure to earn a grade of "C" or better in the second attempt for a major required course will result in the student having to change his or her major to one that does not require the failed course. A third attempt may be approved for students who have mitigating circumstances, at the discretion of the college or school.

~~*Please note that students are only allowed to repeat a maximum of 15 credit hours.~~

Graduation Process.

~~1.~~ A student is responsible for meeting all graduation requirements. Once h~~H~~aving met all requirements for an undergraduate degree, a student is expected to graduate and will not be permitted to take additional classes as an undergraduate student.

~~2.~~ 1. Student responsibilities include:

~~a.~~ a. Meeting with an academic advisor each semester to discuss degree progression;

b. Meeting all requirements for the degree;~~.~~

~~b.~~ c. Completing the g~~G~~raduation a~~A~~pplication online by the deadline listed in the a~~A~~cademic d~~D~~ates and d~~D~~eadlines in the Catalog; and

~~c.~~ d. Meeting with the d~~D~~epartment a~~A~~dvisors and completing a Graduation Plan of Action.~~;~~

~~d.~~a. 2. ~~Meeting all requirements for the degree.~~

~~1.~~ Department responsibilities include:

~~a.~~ a. Advising students toward ~~-~~degree completion;

~~b.~~ b. Consulting with academic advisors to identify at-risk students;~~.~~

~~c.~~ c. Reviewing and approving the list of prospective graduates~~-~~;

~~d.~~ d. Notifying the Registrar if degree requirements have not been met; and

~~e.~~ e. Meeting with the student and completing a Graduation Plan of Action when necessary.

Florida A&M University awards degrees to candidates who have completed all requirements for graduation. The ~~u~~University may award the degrees at the end of any academic term – fall, spring or summer. If an undergraduate student has completed his or her degree requirements (BOG 6.017), the academic Dean of the student's program will confirm that the student is eligible to be awarded the degree. ~~The university reserves the right to confer the degree once degree requirements are met.~~

The U~~u~~niversity reserves the right to award a degree once a student has completed all requirements for a degree in a specified major, based on confirmation from the academic Dean. Upon notification, the student may choose to appeal this decision with compelling reasons to postpone the graduation. Financial aid, student activities participation, or access to student services[AGM1] are not legitimate reasons. If the student can demonstrate that continued enrollment is necessary to achieve his or her academic goals, the appeal may be granted.

Procedure for Appeal:

1. Student must submit a written request to the student's academic dean no later than ten (10) business days from receipt date of the notification that the University is invoking its right to award the degree.
2. The appeal will be reviewed by a committee comprised of the student's primary academic dean, the department chair and the University Registrar. The committee must find evidence to support the student's claim of a legitimate academic need in order to grant permission to continue taking courses at the University. The committee's decision is final.
3. Student will receive notification of the committee decision within ten (10) business ~~working~~ days from receipt of the student's written appeal.