

Department of Management
Graduate Program Handbook

2020 – 2021
(Revised November 2020)

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2. Link to Graduate School Policy Handbook web page

<https://www.clemson.edu/graduate/students/policies-procedures/index.html>

3. Overview of program (helps with SACSCOC requirement; recommended but not required)

- a. Goals and learning objectives stated in measurable language

PhD Business Administration: The overarching goal of the program is for the student to develop mastery of the subject content of the chosen area of study, and to develop the research knowledge and skills required to make valued contributions to the body of knowledge in the subject area.

MS Management: The goal of the program is for the student to develop the knowledge and technical skills to be an effective manager.

- b. What graduates typically do

PhD Business Administration: Almost all graduates are employed by colleges and universities.

MS Management: Almost all graduates are employed in industry.

- c. Any professional licensure available - N/A

- d. Approved locations, modalities of delivery, etc.

PhD Business Administration: Most classes are typically face-to-face on the Clemson campus.

MS Management: Most classes are at Greenville One.

- e. Cohort information if applicable - N/A

- f. Basic program metrics- typical time to degree, % students who graduate, other useful information as desired by program

PhD Business Administration: Typical time to degree is 4 to 6 years

% students who graduate – of students admitted in past 10 years, 70% graduate

19% of students admitted in the past 10 years withdrew prior to two years

11% of students admitted in the past 10 years failed comps at the end of two years

MS Management: Can be completed in one calendar year

- g. Contact information and description of key support services, administrative offices, (program coordinator, professional advisor, support staff, professional or student organizations if present etc.)

Graduate Programs Coordinator: Dr. Wayne Stewart, 412E Wilbur O. and Ann Powers Hall, waynes@clemsun.edu, (864) 656-3776.

- h. Information on an advisory board or similar steering group if present

A Graduate Programs Committee, comprising four tenured or tenure-track members elected by the Management faculty, plus a chairperson, the Graduate Coordinator of the Department of Management, who is appointed by the Department Chair, 1) implements admission standards, curriculum actions, and operating policies and procedures approved by the faculty for all graduate programs administered by the Department, and 2) monitors the progress of graduate students toward their degrees and recommends appropriate actions to the students' graduate committees and to the Department Chair.

4. Admission requirements where they differ from University requirements, particularly expectations related to prior experiences.

- a. Clearly separate out requirements from desirable characteristics, and clearly state whether GRE or other standardized test is required. The Graduate School does not require any standardized test for admission.

For both PhD Business Administration and MS Management:

Either GMAT or GRE required.

Scores should be above 50th percentile for both quantitative and verbal.

- b. Limits of admissions, dates typical offers made, etc.

PhD Business Administration:

Apply for fall admission – January 15 deadline

Students admitted and assistantship offered (round 1) – March 15

Orientation – First week of fall semester

MS Management:

Apply for fall admission – March 15 deadline

Students admitted – April 15

Orientation – First week of fall semester

- c. Program-specific typical support mechanisms (if any) for students to be aware of and how to access them

PhD students are only admitted with assistantships.

No assistantships provided for MS students.

- d. Explanation of any program-specific fees/equipment unique to program

MS Management students will pay the MBA premium tuition.

- e. If program is more restrictive in transfer credits than GS, should be specified – N/A

- f. Information about typical levels or methods of student support could be valuable here but not required – N/A

5. Requirements for degree, along with rubrics or details of assessment for each

a. Minimum degree requirements, including but not limited to:

i. credit hours required, including minimum research credits if applicable

MS Management: 30 credits hours required

PhD Business Administration: at least 48 hours of course credit hours, and at least 18 credit hours dissertation

ii. program of study (including core courses, specializations or cognates if applicable) –

MS Management requires ten courses: **MGT/MBA 8090** Organization Behavior, **MGT 8500/MBA 8590** Decision Modeling, **MBA 8030** Statistics, **MGT 8030/MBA 8060** Operations Management, **MGT/MBA 8610** Management Information Systems, **MGT 8040/MBA 8700** Operations Strategy, **MBA 8690** Project Management, and 9 credit hours of graduate electives.

PhD in Business Administration program of study depends on the choice of 5 tracks:

ENTREPRENEURSHIP (ENT) TRACK PROGRAM OF STUDY

YEAR 1

Fall:

- **PSYC 8100** Research Design & Quantitative Methods (Required) – 3 credit hours
- **MGT 9330** Seminar in Strategic Management: Research Foundations *or* **MGT 9340** Seminar in Strategic Management: Contemporary Topics (One of the two options required for 3 credit hours)*
- **Elective** 3 credit hours (See the list of all elective options below)

Spring:

- **PSYC 8110** Research Design & Quantitative Methods II (Required) – 3 credit hours
- **MGT 9350** Seminar in Entrepreneurship: Research Foundations *or* **MGT 9360** Seminar in Entrepreneurship: Contemporary Topics (One of the options is required for 3 credit hours)
- **MGT 9310** Seminar in Organizational Behavior: Research Foundations *or* **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics (One of the two options required for 3 credit hours)*

Summer:

- **MGT 8910** Master's Thesis Research (3 credit hours for summer 1 research paper) (Required)
- **MGT 9160** Directed Readings – 3 credit hours

YEAR 2

Fall:

- **PSYC 8130** Research Design & Quantitative Methods III (Required) – 3 credit hours

- **MGT 8910** Master's Thesis Research (3 credit hours for summer 1 research paper completion and presentation) (Required)
- **Electives** 6 credit hours

Spring:

- **MGT 9350** Seminar in Entrepreneurship: Research Foundations *or* **MGT 9360** Seminar in Entrepreneurship: Contemporary Topics (Option previously not taken is required for 3 credit hours)
- **Electives** 6 credit hours

Summer:

MGT 8910 Master's Thesis Research (6 credit hours required)

Qualifying comprehensive exams (Required)

YEAR 3 THEREAFTER TO DEGREE COMPLETION:

MGT 9910 Doctoral Dissertation Research (minimum 18 credit hours, but continuing full time enrollment of nine credit hours per semester and six credit hours per summer through dissertation proposal defense, and until final oral dissertation defense)

Final Dissertation Defense

** Students in the Entrepreneurship Track are required to take one seminar in **each** of the two possible Strategic Management and Organizational Behavior seminars, but they will often benefit from taking both of the seminars in either or both of these related areas as electives.*

Electives Options:

Methods courses: **EDF 9720** Phenomenology and Grounded Theory Research Methods and Design; **EDF 9750** Mixed Methods Research; **EDF 9790** Qualitative Research in Education; **HLTH 8210** Health Research I: Design and Measurement; **HLTH 8220** Health Research II: Qualitative and Mixed Methods; **MATH 6070** Regression and Time Series; **MGT 9050** Management Research Methods; **PSYC 8140** Research Design and Quantitative Methods Lab (1 hour class); **PSYC 8400** Usability Studies for Applied Psychology; **PSYC 8710** Psychological Testing and Measurement; **PSYC 8730** Structural Equation Modeling; **PSYC 8990** Meta-Analysis; **SOC 8030** Survey Designs for Applied Social Research; **SOC 8070** Advanced Research Methods; **SOC 8920** Quantitative Methods; **STAT 8170** Multivariate Statistics; or other topics as approved by the student's advisor.

Seminar courses: **ECON 8010** Microeconomic Theory; **ECON 9000** Selected Topics in Economics; **MGT 9310** Seminar in Organizational Behavior: Research Foundations; **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics; **MGT 9330** Seminar in Strategic Management: Research Foundations; **MGT 9340** Seminar in Strategic Management: Contemporary Topics; **PSYC 8620** Organizational Psychology; **PSYC 8720** Judgment and Decision Making; **SOC 8100** Theoretical Models in Applied Social Research; ; or other courses as approved by the student's advisor.

Select advanced courses: **ECON 6400** Game Theory; **ECON 8060** Econometrics I.; **ECON 8070** Econometrics II.; **ECON 8080** Econometrics III.; **ECON 8240** Organization of Industry; **ECON 9090** Time-Series Econometrics; **MATH 8840** Statistics for Experimenters; **MATH 9020** Probability Theory; or other topics as approved by the student's advisor.

INFORMATION SYSTEMS (IS) TRACK PROGRAM OF STUDY
(Typical Progression)

YEAR 1

Fall:

- **MGT 9250** Seminar in Information Systems: Research Foundations, or **MGT 9050** Theory Building (Proposed new title, replacing old title “Research Methods”), or **MGT 8990** Special Topics in Theory Building (Current offering – dropped if MGT 9050 is instituted), or **MGT 9260** Seminar in Information Systems: Contemporary Topics (New course similar to other MGT Ph.D. tracks – contemporary topics course based on instructor's expertise, e.g., seminars on org. or ind. impacts, agile system development, etc.). (Take one of these core courses (3 credit hours) in Year 1 - Fall) (Required)

Methods Courses (6 credit hours) – possible options below

- **ECON 6050** Introduction to Econometrics – 3 credit hours
- **ECON 8040** Applied Mathematical Economics – 3 credit hours
- **DSA 8640** Programming for Data Science – 3 credit hours

Spring:

- **MGT 8990** Special Topics in Applied IS Research Methods, or **MGT 9180** Seminar in Advanced Quantitative Methods (Proposed new title, replacing old title *Seminar in Management Support Systems* (e.g., covering advanced applied econometrics and data scraping in management research), or **MGT 9270** Business Analytics Research (Proposed new title, replacing old title *Seminar on Organizational Impacts of Information Systems*). (Take one of these core courses (3 credit hours) in Year 1 - Spring)

Methods Courses (6 credit hours) – elective options below

- **ECON 6060** Advanced Econometrics, or **ECON 8610** Advanced Data Analysis for Economics – 3 credit hours
- **STAT 8050** Design and Analysis of Experiments – 3 credit hours
- **ECON 9000** Selected Topics - Machine Learning – 3 credit hours, or **CPSC 6430** Machine Learning: Implementation and Evaluation – 3 credit hours, or **IE 6910** Special Topic in IE - Python Machine Learning Applications – 3 credit hours
- **DSA 8640** Programming for Data Science – 3 credit hours, or **MGT 8640** Programming for Data Science - 3 credit hours

Summer:

- Elective Course – 3 credit hours
- **MGT 8990** Special Topic – Summer Research (Summer Paper) – 3 credit hours

YEAR 2

Fall:

- **MGT 9250** Seminar in Information Systems: Research Foundations, or **MGT 9050** Theory Building (Proposed new title, replacing old title “Research Methods”), or **MGT 8990** Special Topics in Theory Building (Current offering – dropped if MGT 9050 is instituted), or **MGT 9260** Seminar in Information Systems: Contemporary Topics (New course similar to other MGT Ph.D. tracks – contemporary topics

course based on instructor's expertise, e.g., seminars on org. or ind. impacts, agile system development, etc.). (Take one of these core courses (3 credit hours), excluding any course already completed, in Year 2 -Fall) (Required)

Methods Courses (6 credit hours) – elective options are below)

- **ECON 8060** Econometrics I - 3 credit hours, or **ECON 9000** Special Topic in Econometrics: Econometrics I – 3 credit hours
- **ECON 8070** Econometrics II – 3 credit hours, or **ECON 9000** Special Topic in Econometrics: Econometrics II – 3 credit hours
- **DSA 8640** Programming for Data Science – 3 credit hours, or **MGT 8640** Programming for Data Science - 3 credit hours

Spring:

- **MGT 8990** *Special Topics in Applied IS Research Methods*, or **MGT 9180** *Seminar in Advanced Quantitative Methods* (Proposed new title, replacing old title *Seminar in Management Support Systems* (e.g., covering advanced applied econometrics and data scraping in management research), or **MGT 9270** *Business Analytics Research* (Proposed new title, replacing old title “Seminar on Organizational Impacts of Information Systems.”) (Take one of these core courses (3 credit hours), excluding any course already completed, in Year 2 – Spring) (Required)

Methods Courses (6 credit hours) – elective options are below)

- **ECON 6400** Game Theory – 3 credit hours
- **ECON 8080** Econometrics III – 3 credit hours
- **ECON 8710** Advanced Economic Analytics for Business – 3 credit hours
- **ECON 9000** Selected Topics - Machine Learning, or **CPSC 6430** Machine Learning: Implementation and Evaluation, or **IE 6910** Special Topic in IE - Python Machine Learning Applications – 3 credit hours
- **ECON 9090** Advanced Time Series Econometrics – 3 credit hours

Summer:

- **Elective** – 3 credit hours
- **MGT 8910** Master Thesis Research – 3 credit hours
- Qualifying comprehensive exam (required)

YEAR 3 THEREAFTER TO DEGREE COMPLETION

MGT 9910 Doctoral Dissertation Research (minimum 18 hours but continuing full-time enrollment of nine credit hours per semester and six credit hours per summer through dissertation proposal defense and until final oral dissertation defense)

Elective Methods Courses

Final Dissertation Defense

The outlined program may exhibit variability, with the primary/chair advisor's approval, to address student interest, to accommodate development in the program, and to address course availability in any given semester. However, a student may not graduate without taking the required information systems courses.

Select Options for Electives:

IS students may benefit from taking additional electives in computer science, educational research methods, industrial engineering, supply chain management, strategic management, entrepreneurship, organizational behavior, psychology, and sociology. Students are also encouraged to consider taking elective method courses to support their dissertation and specialized methodological interests. Students may also find it beneficial to take other courses on Econometrics, Machine Learning, Longitudinal Designs, Survey Design, and Experimental Design, depending on their chosen topic of interest. These courses are to be taken with the approval of the student's chair/primary advisor. It is also possible to take specialized, independent studies with individual faculty. Some of these elective courses are listed below.

Methods courses: **EDF 9720** Phenomenology and Grounded Theory Research Methods and Design; **EDF 9750** Mixed Methods Research; **EDF 9790** Qualitative Research in Education; **ECON 6050** Introduction to Econometrics; **ECON 6060** Advanced Econometrics; **ECON 6400** Game Theory; **ECON 8040** Applied Mathematical Economics; **ECON 8060** Econometrics I; **ECON 8070** Econometrics II; **ECON 8080** Econometrics III; **ECON 8240** Organization of Industry; **ECON 8610** Advanced Data Analysis for Economics (substitute for **ECON 6060**); **ECON 8710** Advanced Economic Analytics for Business; **ECON 9000** Special Topic In Economics: Econometrics I; **ECON 9000** Special Topic In Economics: Econometrics II; **ECON 9000** Special Topic In Economics: Econometrics III; **ECON 9000** Special Topic In Economics; **ECON 9090** Time-Series Econometrics; **PSYC 8100**: Research Design I; **PSYC 8100** Research Design II; **PSYC 8100** Research Design III; **PSYC 8350** Advanced Human Factors Psychology; **PSYC 8400** Usability Studies for Applied Psychology; **PSYC 8730** Structural Equation Modeling; **PSYC 8990** Meta-Analysis; **SOC 8030** Survey Designs for Applied Social Research; **STAT 8050** Design and Analysis of Experiments, or other method courses as approved by the student's advisor

Seminar and technical courses electives: **CPSC 6200** Computer Security Principles; **CPSC 6620** Database Management Systems; **CPSC 6820** Special Topics: Data Science; **CPSC 6300** Applied Data Science; **CPSC 6420** Artificial Intelligence; **CPSC 6430** Machine Learning Implementation and Evaluation; **CPSC 8110** Deep Reinforcement Learning; **CPSC 8430** Deep Learning; **IE 6570** Transportation and Logistics Engineering; **IE 6910** Special Topic in IE - Python Machine Learning Applications; **IE 6910** Special Topic: Cases Studies in Transportation and Logistics; **IE 8500** Foundations of Supply Chain and Logistic; **IE 8520** Prescriptive Analytics; **MGT 8590** Advanced Business Analytics; **MGT 8610** Information Systems; **MGT 8640** Programming for Data Science; **MGT 8660** Data Management and Warehousing; **MGT 8690** Project Management; **MGT 8990** Special Topic – Summer Research; **MGT 9160** Direct Readings in Management; **MGT 9310** Seminar in Organizational Behavior: Research Foundations; **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics; **MGT 9330**: Seminar in Strategic Management: Research Foundations; **MGT 9350** Seminar in Entrepreneurship: Research Foundations; **MGT 9360** Seminar in Entrepreneurship: Contemporary Topics; **MGT 9410** Seminar on Theories of Manufacturing and Supply Chain Strategy; **MGT 9420** Seminar in Service Science: Strategy and Design

ORGANIZATIONAL BEHAVIOR/HUMAN RESOURCES (OB/HR) TRACK PROGRAM OF STUDY

YEAR 1

Fall:

- **PSYC 8100** Research Design & Quantitative Methods I (Required) – 3 credit hours
- **Electives** 6 credit hours (See the list of all elective options below)

Spring:

- **PSYC 8110** Research Design & Quantitative Methods II (Required) – 3 credit hours

- **MGT 9350** Seminar in Entrepreneurship: Research Foundations *or* **MGT 9360** Seminar in Entrepreneurship: Contemporary Topics (One of the two options required for 3 credit hours)
- **MGT 9310** Seminar in Organizational Behavior Research Foundations *or* **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics (One of the two options required for 3 credit hours)

Summer:

- **MGT 8910** Master's Thesis Research (3-6 credit hours for summer paper) (Required)
- **Elective** 3 credit hours if only taking 3 credit hours of **MGT 8910** Master's Thesis Research

YEAR 2

Fall:

- **PSYC 8130** Research Design & Quantitative Methods III (Required) – 3 credit hours
- **MGT 8910** Master's Thesis Research (3 credit hours: Summer 1 paper completion and presentation) (Required)
- **Electives** 6 credit hours

Spring:

- **MGT 9310** Seminar in Organizational Behavior: Research Foundations *or* **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics (Option previously not taken is required for 3 credit hours)
- **Electives** 6 credit hours

Summer:

MGT 8910 Master's Thesis Research (6 credit hours) *or* **MGT 8910** 3 credit hours *and* **MGT 9160** Directed Readings for 3 credit hours (One of the two options required)

Qualifying comprehensive exams (Required)

YEAR 3 THEREAFTER TO DEGREE COMPLETION:

MGT 9910 Doctoral Dissertation Research (minimum 18 credit hours, but continuing full time enrollment of nine credit hours per semester and six credit hours per summer through dissertation proposal defense, and until final oral dissertation defense)

Final Dissertation Defense

Electives Options:

Methods courses: **MGT 9050** Management Research Methods; **PSYC 8140** Research Design and Quantitative Methods Lab (1 hour class); **PSYC 8400** Usability Studies for Applied Psychology; **PSYC 8710** Psychological Testing and Measurement; **PSYC 8730** Structural Equation Modeling; **PSYC 8990** Meta-Analysis; **SOC 8030** Survey Designs for Applied Social Research; **SOC 8070** Advanced Research Methods; **SOC 8920** Quantitative Methods; **STAT 8170** Multivariate Statistics; **EDF 9720** Phenomenology and Grounded Theory Research Methods and Design; **EDF 9750** Mixed Methods Research; **EDF 9790** Qualitative Research in Education; **HLTH 8210** Health Research I: Design and Measurement; **HLTH 8220**

Health Research II: Qualitative and Mixed Methods; **MATH 6070** Regression and Time Series; or other topics as approved by the student's advisor.

Seminar Courses: **PSYC 8600**, Psychology of Training and Evaluation; **PSYC 8640**, Performance Appraisal; **PSYC 8650**, Job Analysis; **Psych 8670**, Legal Issues in Personnel; **PSYC 8690**, Advanced Personnel Selection; **PSYC 8600** Training and Evaluation; **PSYC 8630**, Work Motivation and Satisfaction; **PSYC 8660** Cross Cultural Issues in IO Psych; **PSYC 8680**, Leadership in Organizations; **PSYC 8720** Judgement and Decision Making; **PSYC 8820**, Occupational Health Psych.; **PSYC 8850**, Organizational Stress; and other **PSYC 8990** seminars as approved by the student's advisor.

STRATEGIC MANAGEMENT (STR) TRACK PROGRAM OF STUDY

YEAR 1

Fall:

- **MGT 9330** Seminar in Strategic Management: Research Foundations (Required) *or* **MGT 9340** Seminar in Strategic Management: Contemporary Topics (One of the two is required for 3 credit hours)

Methods Courses (6 credit hours from the options below)

- **ECON 6050** Introduction to Econometrics – 3 credit hours
- **DSA 8010** Statistical Methods I – 3 credit hours
- **PSYC 8100** Research Design & Quantitative Methods I – 3 credit hours

Spring:

- **MGT 9350** Seminar in Entrepreneurship: Research Foundations *or* **MGT 9360** Seminar in Entrepreneurship: Contemporary Topics (One of the two options is required for 3 credit hours)

Method Courses (6 credit hours from the options below)

- **ECON 6060** Advanced Econometrics – 3 credit hours
- **PSYC 8110** Research Design & Quantitative Methods II – 3 credit hours
- **ECON 9000** Selected Topics Machine Learning – 3 credit hours

Summer:

- Elective Method Course – 3 credit hours
- **MGT 8910** Master Thesis Research (Summer Paper) – 3 credit hours

YEAR 2

Fall:

- **MGT 9330** Seminar in Strategic Management: Research Foundations (Required) *or* **MGT 9340** Seminar in Strategic Management: Contemporary Topics (Option previously not taken is required) – 3 credit hours
- **MGT 8910** Master Thesis Research (Summer Paper) – 3 credit hours

Methods Courses (6 credit hours from the options below)

- **ECON 8060** Econometrics I *or* **STAT 8020** Statistical Method II – 3 credit hours
- **DSA 8640** Programming for Data Science – 3 credit hours
- **EXST 8050** Design and Analysis of Experiment – 3 credit hours

Spring:

- **MGT 9310** Seminar in Organizational Behavior: Research Foundations *or* **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics (One of the two options required for 3 credit hours)

Methods Courses (6 credit hours from the options below)

- **ECON 8070** Econometrics II – 3 credit hours
- **PSYC 8130** Research Design & Quantitative Methods III – 3 credit hours
- **ECON 9090** Advanced Time Series Econometrics – 3 credit hours
- **MGT 8990** Special Topics in Strategic Management – 3 credit hours

Summer:

- **MGT 8990** Special Topics in Strategic Management – 3 credit hours
- **MGT 8910** Master Thesis Research (Comprehensive Exam) – 3 credit hours
- Qualifying comprehensive exam

YEAR 3 THEREAFTER TO DEGREE COMPLETION

MGT 9910 Doctoral Dissertation Research (minimum 18 credit hours but continuing full-time enrollment of nine credit hours per semester and six credit hours per summer through dissertation proposal defense and until final oral dissertation defense).

Elective Methods Courses

Dissertation Proposal Defense: Three Essays

Final Dissertation Defense: Three Essays

NOTE: The outlined program may exhibit variability, with the primary/chair advisor's approval, to accommodate each student's interest and development in the program, and to address course availability in any given semester. However, a student may not graduate without taking the required strategic management courses.

Select Electives Options:

Strategic Management students may benefit from taking additional electives in entrepreneurship, organizational behavior, and other MIS and SCOM courses. Students are also encouraged to consider taking

elective method courses to support their dissertation and specialized methodological interests. Although not listed above, students may also find it beneficial to take other courses on Econometrics, Machine Learning, Longitudinal Designs, Survey Design, and Experimental Design, depending on their chosen topic of interest. These courses are to be taken with the approval of the student's chair/primary advisor. It is also possible to take specialized, independent studies with individual faculty. Some of these elective courses are listed below.

Methods courses: **EDF 9720** Phenomenology and Grounded Theory Research Methods and Design; **EDF 9750** Mixed Methods Research; **EDF 9790** Qualitative Research in Education; **HLTH 8210** Health Research I: Design and Measurement; **HLTH 8220** Health Research II: Qualitative and Mixed Methods; **MATH 6070** Regression and Time Series; **MGT 9050** Management Research Methods; **PSYC 8140** Research Design and Quantitative Methods Lab (1-hour class); **PSYC 8400** Usability Studies for Applied Psychology; **PSYC 8710** Psychological Testing and Measurement; **PSYC 8730** Structural Equation Modeling; **PSYC 8990** Meta-Analysis; **SOC 8030** Survey Designs for Applied Social Research; **SOC 8070** Advanced Research Methods; **SOC 8920** Quantitative Methods; **STAT 8170** Multivariate Statistics; or other method courses as approved by the student's advisor.

Seminar courses: **ECON 8010** Microeconomic Theory; **ECON 9000** Selected Topics in Economics; **MGT 9310**; Seminar in Organizational Behavior: Research Foundations; **MGT 9320** Seminar in Organizational Behavior: Contemporary Topics; **MGT 9350** Seminar in Entrepreneurship: Research Foundations; **MGT 9360** Seminar in Entrepreneurship: Contemporary Topics; **PSYC 8620** Organizational Psychology; **PSYC 8720** Judgment and Decision Making; **SOC 8100** Theoretical Models in Applied Social Research.

Select advanced courses: **ECON 8080** Econometrics III.; **ECON 8240** Organization of Industry; **ECON 9090** Time-Series Econometrics; **MATH 8840** Statistics for Experimenters; **MATH 9020** Probability Theory.

SUPPLY CHAIN/OPERATIONS (SCOM) TRACK PLAN OF STUDY

Required prerequisite: ECON math bootcamp (coursework in linear algebra, calculus 1 and calculus (including multivariate calculus) completed with a minimum grade of B prior to June 30 ahead of fall matriculation. Courses from an accredited school can be used to satisfy the requirement

YEAR 1

Fall:

- **ECON 8060** Econometrics I^a– 3 credit hours
- **ECON 8040** Applied Mathematical Economics – 3 credit hours
- **CPSC 2120** Algorithms and Data Structure (**CPSC 2121** lab co-requirement) – 4 credit hours
- **IE 8090** Model Systems Under Risk – 3 credit hours

^a NOTE: If **ECON 8060** is not offered in Fall (Year 1) and **ECON 8070** is not offered Spring (Year 1), then either **CPSC 6300** Applied Data Science (covers data scraping, cleaning, and storage; technical issues when working with different types of data; basic topics in machine learning; parallel and distributed computing; cloud computing; data visualization; and ethical issues in Data Science (prerequisite – one year in college-level introductory statistics) or **ECON 8710** Introduction to Econometrics will be substituted for **ECON 8060** in Fall with the approval of Senior SC/OM faculty. In this case, **ECON 9000** Selected Topics in Economics, which combines **ECON 8060** (Econometrics 1) and **ECON 8070** (Econometrics II), should be taken in Spring (Year 1). Note: Final exam grade of B or higher will demonstrate proficiency in econometrics

Spring:

- **MGT 9410** Doctoral Seminar on Theory and Methods of Manufacturing and Supply Chain Strategy – 3 credit hours
- **STAT 8050** Design and Analysis of Experiments – 3 credit hours
- **MATH 8030** Stochastic Processes, or **MATH 8040** Statistical Inference – 3 credit hours
- **ECON 8070^a** Econometrics II – 3 credit hours

Summer:

- **MGT 8910** Independent Research (summer paper) – 6 credit hours
- **MBA 8060** Introduction to Operations Management – 3 credit hours
- **MBA 8590** Decision Modeling – 3 credit hours

NOTE: Take credit or non-credit courses in R and Python any time in the first year. Short term noncredit courses may be offered by CCIT

YEAR 2

Fall:

- **ECON 9240** Advanced Industrial Organization – 3 credit hours
- **IE 8030** Engineering Optimization and Applications – 3 credit hours
- **MKT 8640** Qualitative Marketing Research, or **SOC 6060** Qualitative Research Methods for the Social Sciences – 3 credit hours
- **MATH 8100** Mathematical Programming – 3 credit hours

Spring:

- **ECON 6400** Game Theory – 3 credit hours
- **ECON 8080** Econometrics III – 3 credit hours
- **MGT 9420** Seminar in Service Science – 3 credit hours
- **ECON 9090** Time-Series Economics – 3 credit hours

Summer:

- **MGT 9160** Directed Readings - 6 credit hours

Qualifying comprehensive exam (Required) and a passing grade on **ECON 8080** is required for the exam

YEAR 3 THEREAFTER TO DEGREE COMPLETION

MGT 9910 Doctoral Dissertation Research (minimum 18 credit hours but continuing full-time enrollment of nine credit hours per semester and six credit hours per summer through dissertation proposal defense and until final oral dissertation defense).

MGT 9420 Seminar in Service Science: Strategy and Design/**MGT 9410** Seminar on Theories of Manufacturing and Supply Chain Strategy

Final Dissertation Defense

Other optional elective courses to supplement research:

SC/OM value chain has many applications that cross industrial sectors and other disciplines. Our students are prepared to conduct apply state-of-art research empirical and/or analytic methods; therefore, to enrich their dissertation research, students are encouraged to take advantage of Clemson’s graduate level courses that may deepen their understanding of their topics of interest (e.g., health care; strategy; climate and environment; humanitarian operations, health care and wellness; socio-technical-human interfaces; retail; product-process-service and technological innovations; influencing consumers in service co-production, such as sharing economy and digital services; risk management, etc. and/or enhance the methodological rigor including big data, analytics; assessment of human biases in decision-making, etc. Elective courses should be approved by Dissertation Chair.

Illustrative examples of enrichment courses include: **ECON 9010** Price Theory; **MBAe8990** Service Innovation: Design for Customer Experience; **STAT 8150** Environmental and Ecological Statistics; **PPTM 8800** Social Ecology: Foundations for Sustainability and Human Resources; **STAT 8110** Special Problems in Experimental Statistics; **STAT 6110** Statistical Methods for Process Development and Control; **SOC 8030** Survey Design for Applied Social Research; **SOC 6060** Qualitative Research Methods for the Social Sciences; **SOC 8100** Theoretical Models in Applied Social Research; **SOC 8070** Advanced Quantitative Research; **SOC 8100** Theoretical Models in Applied Social Research; **PSYC 8720** Judgment and Decision Making; **PSYC 8330** Advanced Cognitive Psychology; **PSYC 8100** Research Design and Quantitative Methods I; **PSYC 8110** Research Design and Quantitative Methods II; **POST 8000** Foundations of Social Science Research for Public Policy; **MHA 7320** Outcomes Assessment and Evaluation in Health Services; **MKT 9000** Consumer Behavior Seminar I; **MKT 8610** Marketing Research; **Math 8630** Digital Models I; **MATH 8820** Introduction to Bayesian Statistics; **Math 8270** Dynamical System Neural Networks; **MATH 8170** Stochastic Models in Operations Research I; **MATH 8180** Stochastic Models in Operations Research II; **MATH 6600** Sampling Theory ad Methods; **AGED 8010** Systems for Technology Transfer; **IE 8800** Advanced Methods of Operations Research; **IE 6600** Quality Improvement Methods; **IE 6850** Survey of Optimization Methods and Applications; **HRD 8820** Knowledge Management for Improved Performance; **HRD 8800** Research Concepts and Skills; **HLTH 8090** Epidemiological Research; **HGC 9330** Interdisciplinary Research; **HCC 8410** Advanced Measurement and Evaluation of Human-Centered Computing Systems; **HCC 8500** The Science of Teamwork and Technology

iii. thesis/non-thesis option

MS Management: Either comprehensive examination at end of coursework OR thesis required (thesis is at least 6 credit hours, as part of 9 credit hours of graduate electives).

iv. time limits (if different from graduate school policy) – N/A

v. Residency requirement if different from graduate school policy – N/A

vi. Foreign language requirement, if any – N/A

vii. sample timetable of student progress (if desired)

PhD in Business Administration: Years 1 and 2 are coursework, comprehensive exam during summer at the end of the 2nd year, and typically three years completing dissertation.

b. Details of forming or modifying an advisory committee (if diverging from typical in policy handbook) – N/A

- c. Preliminary exam (if required) and details of exam – N/A
- d. Comprehensive exam details and expectations and options

PhD Business Administration: Comprehensive exam after two years of coursework consists of three half-day in-class exams plus one-week take-home exam.

MS Management: If thesis option is not chosen, then comprehensive exam at the end of coursework. Exam consists of one-week take-home exam covering the seven required courses.

- e. Expectations for thesis/dissertation (if applicable)
 - i. Proposal format/expectations/ formal approval process

Proposal optional, but if selected, usually after significant portion of theory portion of the dissertation is completed.
 - ii. Applicable style manual if specified – N/A
 - iii. If the program requires submission of a printed copy of thesis/dissertation then clearly list the requirement/parameters of the requirement.

Same as Graduate School requirement.
- f. Requirements (internship, coop, travel to foreign countries, expenditures, licensures, uniforms, equipment, dress code, certifications, etc.) – N/A

6. Standards of performance

- a. Annual review of progress (mandatory for GAs, strongly recommended for all)

PhD Business Administration: Semester review of GRA/GTA performance, and annual review of GTR, coursework, dissertation performance.
- b. If more restrictive than general graduate school policy, clearly state expectations for academic performance (e.g., if you dismiss a student after one F or two Cs rather than 3.0 GPA) – N/A
- c. If professionalism is expectation of performance, program must clearly describe professional requirements and expectations as part of academic expectations for degree; must describe how these requirements assessed or evaluated, and how communicated back to students. – N/A
- d. If program has higher expectations than grad school for graduate assistants, program handbook (or GA appointment letters) must clearly specify expectations and consequences of deviating from expectations – N/A
- e. Unusual attendance policies should be clearly communicated – N/A