

COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences is, from both historical and functional points of view, the core of the modern university. The College of Arts and Sciences views creativity, inquiry and understanding as among the greatest values in human experience. Thus, the College of Arts and Sciences is dedicated to the questioning, creation and transmission of knowledge; to the provision of undergraduate and graduate educational programs that are responsive to the need of an enlightened and productive citizenry; and to the provision of programs and services that enhance the quality of life of the people it serves.

These goals complete a commitment to creativity and inquiry free of bias and based upon the principles of objective scholarship. The College's goals require a responsibility to promote and convey those elements of the liberal arts and sciences that must be essential components of the educational goals of all units of the university. The college seeks richness through diversity of its programs and strength through erudition.

Degree Program	Troy Campus	Phenix City Campus	Dothan Campus	Montgomery Campus	Support Sites	Troy Online
Applied Mathematical Sciences						X
Biomedical Science	X					
Computer Science	X			X ^{^^}		X
<i>Artificial Intelligence Concentration</i>	X			X ^{^^}		X
<i>Bioinformatics Concentration</i>	X					
<i>Cloud and Big Data Concentration</i>	X					
<i>Computer Network and Security Concentration</i>	X					X
<i>Cyber Security Concentration</i>	X					X
<i>Data Science Concentration</i>	X					
<i>Software Development Concentration</i>	X			X ^{^^}		X
<i>Video Game Design</i>	X					X
Criminal Justice	X ^{^^}		X ^{^^}			X
<i>Security Studies Concentration</i>	X					X
Environmental & Biological Sciences	X					X
International Relations	X	X ^{^^}			X ^{^^}	X
Public Administration	X				X ^{^^}	X
Social Science	X ^{^^}					X
Certificate in Public Health Administration						X

* Please refer to <http://admissions.troy.edu/> for specific program availability by location

^{^^} Offered as blended program. A blended program combines both online and face-to-face courses in the required program of study.

MASTER OF SCIENCE IN APPLIED MATHEMATICAL SCIENCES

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

Mission

The Master of Science in Applied Mathematical Sciences prepares students for professional careers or more advanced degrees in mathematics or statistics.

Objectives of the program are as follows:

- To provide students with opportunities to refine their skills and core competencies in discrete mathematics and statistics through the advancement and development of concepts, techniques, and methodologies appropriated in the field.
- To prepare students for work in the fields where a knowledge of mathematics, statistics, algorithms, and computer programming would be highly-valued.
- To facilitate the development of advanced skills in an environment that will ensure both a realistic and varied exposure to contemporary discrete mathematics and statistics problems.
- To promote the integration and application of cutting edge concepts and approaches in the discrete and statistics field.

Prerequisite Requirements

Candidates for admission must have a baccalaureate degree in Mathematics, Mathematics Education, Statistics, Physics, Computer Science, or a related field from a regionally-accredited four-year college or university.

Admission Requirements for the Master of Science in Applied Mathematical Sciences Degree

Unconditional Admission

Hold bachelor's degree in Mathematics, Mathematics Education, Statistics, Physics, Computer Science, or a related field from a regionally-accredited four-year college or university with a minimum overall undergraduate grade point average of 2.5 (on a 4.0 scale) or a 3.0 on grade point average for the last 30 semester hours. All hours attempted in the term in which the 30 semester hours were reached will be used to calculate the grade point average. All transcripts from any colleges or universities attended are required.

Conditional Admission

For those students who cannot satisfy all unconditional admission requirements, conditional admission may be granted under certain circumstances. Individuals admitted on a conditional basis may satisfy the requirements for unconditional admission as follows:

1. Students not having a 2.5 undergraduate grade point average may satisfy the requirement by the successful completion of nine semester hours of graduate MTH or STAT courses with a minimum grade point average of 3.0
2. A student with a bachelor's degree outside the field of Mathematics or Statistics may satisfy the bachelor's degree requirement by completing ALL the following courses or their equivalent:

- MTH 2220 Computer Programming for Mathematics
- MTH 2227 Calculus III
- MTH 3318 Introduction to Advanced Mathematics
- STAT 2210 Introductory Statistics

Additional courses may be required by the Mathematics and Statistics Graduate Advisor depending on the student's background. A student must complete all courses with a grade point average of 3.0.

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students receiving Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

Transfer Credit

A maximum of four courses (12 semester credit hours) taken at another regionally accredited institution, each with a "B" or better, can be applied toward the degree. These courses must be comparable in catalog description to Troy University courses in the department's graduate program and must be recommended for transfer credit by the Chair of the Department of Mathematics and Statistics and approved by the Dean of the Graduate School. Non-thesis students who transfer a "core" course are still required to take a written comprehensive exam based on the material presented at Troy University.

Degree Options

There are two degree options: thesis and non-thesis. In the thesis option, the student must successfully complete and defend a thesis as well as complete other requirements stated below. See Thesis Guidelines for additional information. In the non-thesis option, the student must pass two written comprehensive exams and must successfully complete a research paper.

Degree Requirements

The successful completion of 33 semester hours, including 6 hours of thesis research for the thesis option; and 33 semester hours, including 3 hours of research project for the non-thesis option. Also, the student must have an overall grade point average of 3.0, and successful completion of a thesis or a paper. If the student makes a "D" or "F" in a required course, the course must be retaken. In both cases, a student must complete the required courses and choose one of the two specialization concentrations.

Curriculum

All courses offer three semester hours credit.

Thesis	Non-Thesis
1. Complete 33 SH of graduate-level courses to include 6 SH of course MTH 6692 or STAT 6621	1. Complete 33 SH of graduate-level courses to include 3 SH of course MTH 6625 or STAT 6620;
2. Maintain a minimum overall 3.0 GPA;	2. Maintain a minimum over all 3.0 GPA;
3. Successfully complete and defend a thesis; AND	3. Pass 2 written comprehensive examinations; AND
4. 6 hours of thesis research.	4. Successfully complete an approved research paper.

Required Core Courses (9 sh)

MTH6612	3	Advanced Discrete Mathematics
MTH6620	3	Advanced Concepts of Algebra
MTH6633	3	Advanced Linear Algebra

Select one concentration:**Discrete Mathematics and Modeling Concentration**

Select three courses from the following (9 sh):

MTH5520	3	Graph Theory
MTH6616	3	Mathematical Models
MTH6624	3	Applied Combinatorics
MTH6630	3	Design Theory

Select one option below:**Non-Thesis Option (15 sh):**

MTH6625 3 Specialized Study in Mathematics
Select any 4 graduate (5000-6000 level) courses from the following (12 sh): Computer Science, Mathematics, and/or Statistics.

Thesis Option (15 sh):

MTH6692 6 Research and Thesis
Select any 3 graduate (5000-6000 level) courses from the following (9 sh): Computer Science, Mathematics, and/or Statistics.

Statistics Concentration

Required courses (9 sh):

STAT5551	3	Mathematical Statistics I
STAT5552	3	Mathematical Statistics II
STAT5559	3	Regression Analysis

Select one option below:**Non-Thesis Option (15 sh):**

STAT6620 3 Selected Topics in Probability and Statistics

Select any 4 of the following (12 sh):

STAT5553	3	Time Series
STAT5540	3	Biostatistical Analysis
STAT5556	3	Mathematics of Finance
STAT5562	3	Advance Statistical Methods
STAT5564	3	Multivariate Analysis
STAT5565	3	Categorical Data Analysis
STAT5566	3	Data Mining
STAT5567	3	Experimental Design
MTH6616	3	Mathematical Models
CS 6640	3	Advanced Database Concepts
QM 6640	3	Data Analysis for Global Managers
IS 6662	3	Big Data Analytics and Business Decision Support

Thesis Option (15 sh):

STAT6621 6 Research and Thesis

Select 3 of the following (9 sh):

STAT5553	3	Time Series
STAT5540	3	Biostatistical Analysis
STAT5556	3	Mathematics of Finance

STAT5562	3	Advance Statistical Methods
STAT5564	3	Multivariate Analysis
STAT5565	3	Categorical Data Analysis
STAT5566	3	Data Mining
STAT5567	3	Experimental Design
STAT6620	3	Selected Topics in Probability and Statistics
MTH6616	3	Mathematical Models
CS 6640	3	Advanced Database Concepts
QM 6640	3	Data Analysis for Global Managers
IS 6662	3	Big Data Analytics and Business Decision Support

Note: If students have already taken those cross-listed courses in undergraduate study, then they need to choose other advisor-approved graduate courses in either concentration.

MASTER OF SCIENCE IN BIOMEDICAL SCIENCES (M.S. BMS)

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

Mission

The M.S. program and certificate in the Biomedical Sciences are designed to achieve the following: 1) to prepare students for future entry into medical and other professional schools in the health sciences and 2) to provide students with advanced knowledge in the biomedical sciences.

Upon completion of the degree program, students will gain a thorough knowledge of biomedical concepts developed through courses that focus on the changing face of medicine and biotechnology. This program will foster strategic and critical thinking, logical analysis, and propose solutions to the challenges of medicine, the allied health sciences, and biotechnology.

The expected program learning outcomes of students enrolled in the Master of Science in the Biomedical Sciences include:

1. Demonstrate a conceptual competence of the basic biomedical sciences.
2. Develop a framework for maintaining technological currency in the biomedical sciences and healthcare.
3. Develop critical thinking skills for applying scientific knowledge in problem-solving.
4. Acquire skills for developing hypotheses, analyzing data, and interpreting and communicating results in the biomedical sciences.
5. Develop written and oral skills for communicating effectively and professionally.
6. Promote ethical standards for all professional activities in the biomedical sciences and healthcare.

Prerequisite Requirements

Candidates for admission must have a baccalaureate degree from a regionally accredited college or university. At a minimum, applicants should have successfully completed Genetics (BIO 3320 / BIO L320, Human Anatomy and Physiology I, II (BIO 3347 / BIO L347, BIO 3348 / BIO L348), and Microbiology (BIO 3372 / BIO L372).

Other prerequisites include General Physics I, II (PHY 2252 / PHY L252, PHY 2253 / PHY L253), General Chemistry I, II (CHM 1142 / CHM L142, CHM 1143 / CHM L143), and Organic Chemistry I, II (CHM 3342 / CHM L342, CHM 3343 / CHM L343). Students with undergraduate degrees outside of the biological sciences are encouraged to inquire about the program.

Admission Requirements

To apply for admission to the M.S. program in Biomedical Sciences, applicants must submit the following:

1. Completed Application for Admission to the Graduate School;
2. Official transcript(s)
3. Official copy of one of the following: GRE (with writing score), GMAT or MCAT, PCAT, OAT, DAT, or equivalent.
4. Two letters of recommendation from professors, physicians, or other appropriate professionals that address the applicant's potential for success in a graduate program; and
5. A 500-word personal statement that addresses the applicant's professional goals, readiness for graduate school, and potential for completing the M.S. B.M.S. program.

Unconditional Admission

Applicants may be admitted unconditionally if they meet the following requirements:

1. Applicants who have completed a master's or higher degree from a regionally accredited college or university may be admitted unconditionally. Applicants must submit all materials listed in Admission Requirements for the M.S. in Biomedical Sciences.
2. Attained a bachelor's degree from a regionally accredited college or university and achieved a minimum of 2.5 GPA in all undergraduate courses.
3. Have an acceptable score on the appropriate entrance exam: GRE 290 (recommended: 150 verbal, 140 quantitative) and GRE writing score. If the student has taken the MCAT (recommended: 487), DAT (recommended: 16), or equivalent professional exam, then this may be substituted for the GRE.

Conditional Admission

Conditional admission may be granted under certain circumstances to applicants who cannot satisfy all unconditional admission requirements to a graduate program. See conditional admission requirements in the general regulations section of this Catalog.

Students admitted conditionally only because of a low undergraduate grade point average will be cleared of their conditional status if, at the completion of nine semester hours, they have achieved a 3.0 grade point average or greater on all graduate work attempted. Students must clear the conditional admission requirement of a 3.0 average at the completion of nine semester hours, or they will be dropped from the graduate program for one calendar year after which they may petition the Dean of the Graduate School to re-enter.

Students admitted conditionally only because of a low test score will be granted unconditional admission at the completion of nine semester hours provided they have maintained a 3.0 grade point average on all graduate work attempted or have retaken the test and received a satisfactory score.

Transfer Credit

A maximum of four courses (12 semester credit hours) taken at another regionally accredited institution, each with a "B" grade or better, can be applied toward the degree. These courses must be

comparable in catalog description to Troy University courses in the M.S. program in Biomedical Sciences and must be approved by the Chair of the Department of Biological and Environmental Sciences. Students who transfer a "core" course will still be held accountable for all material and Troy courses. In addition, transfer students must still successfully complete the comprehensive exam.

Degree Requirements

1. Unconditional admission.
2. Overall 3.0 GPA in all graduate work completed.
3. No more than two grades in any coursework attempted with a grade of C or below.
4. Completion of the curriculum listed below. A grade of "B" or better is required for BIO 6691 (3) Research Methodology and Experimental Design. If the student makes a "D" or "F" in an elective course, the course may be retaken or another elective taken in its place.
5. For Non-Thesis Option, successful completion of all components of the comprehensive examination.

Curriculum (30-31 sh)

The Master of Sciences in Biomedical Sciences is a 30-31 hour non-thesis or thesis-option degree.

** The University requires that 6000-level courses make up at least 50% of the 30-31 semester hours.*

**Courses with separate lectures and labs must be taken together.*

**Please note that 5000-level courses cannot duplicate undergraduate courses that the student has taken as an undergraduate.*

**Please note that the 6000-level core classes are ONLY offered in a 16-week format during the fall and spring semesters.*

Summer courses (6000-level) are offered on an 8 week format.

**BIO 6691 (3) Research Methodology and Experimental Design requires a grade of "B" or better.*

**Under the guidance of the student's advisor and the Chair of the Department, the student may pursue original research (independent acquisition and interpretation of data) in a particular area of the biomedical sciences. The completion of a thesis is required.*

Required Core Courses (19 sh)

BMS 6615	3	Medical Microbiology and Immunology
BMS 6625	3	Medical Cell Biology
BMS 6635	3	Medical Physiology
BMS 6655	3	Clinical Biochemistry
BMS 6665	4	Neuroanatomy
BIO 6691	3	Research Methodology and Experimental Design

In addition to these Required Core Classes, students must take additional classes to complete the graduation requirement of 30-31 semester hours.

Elective courses Non-Thesis Option(11-12 sh)

Courses with separate lectures and labs must be taken together.

BIO 5516	3	Microbial Ecology
BIO L516	1	Microbial Ecology Lab
BIO 5551	3	Toxicology
BIO L551	1	Toxicology Lab
BIO 5771	3	Parasitology
BIO L571	1	Parasitology Lab

BIO 5576	1-4	Special Topics
BIO 5580	3	Histology
BIO L580	1	Histology Lab
BIO 5592	1-4	Guided Independent Research
BIO 5594	1-4	Guided Independent Study
BIO 6601	3	Environmental and Biological Ethics
BIO 6621	3	Environmental Toxicology
BIO 6625	1-4	Specialized Study in Biology
6626		
BIO 6670	1-4	Special Topics
6671		
BMS 6630	3	Medical Pharmacology
BMS 6665	3	Neuroanatomy
SOC 5555	3	Death and Dying
OR		
SOC 5560	3	Sociology of Health, Medicine, & Illness
BIO 6624	3	Public Health
<i>Or select one (1) of the following:</i>		
PA 6675	3	Public Health Services Administration and Policy
PA 6676	3	Legal and Social Issues in Public Health Administration
PA 6677	3	Public Health Preparedness and Emergency Response
PA 6678	3	Introduction to Public Health

Comprehensive Examination

After the completion of all core courses, Non-Thesis Option students must successfully complete a comprehensive examination. The comprehensive exam is given in the semester or term prior to graduation. Students should work closely with their advisor to prepare for their comprehensive exams, which will be prepared, administered, and evaluated by the graduate committee. Comprehensive exams will be taken as scheduled by the University and/or Department.

Thesis Option: (30 sh)

Required Core Courses	19 sh
Thesis Hours	6 sh
Advisor-approved Electives	5-6 sh
Total	30-31

MASTER OF SCIENCE IN COMPUTER SCIENCE

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

The Master of Science degree in Computer Science prepares students for a professional career in the computer science industry, IT industry, or computer science research. Typical graduates of the program may be employed as software developers, network engineers, database administrators, or further pursue a Ph.D. degree. Objectives of the program are as follows:

1. To provide students with opportunities to refine their skills and core competencies in computer science through the advancement and development of concepts, techniques,

and methodologies appropriate in the field.

2. To facilitate the development of advanced skills in an environment that will ensure both a realistic and varied exposure to contemporary information processing problems.
3. To promote the integration and application of cutting edge concepts and approaches in the computer science field.

Prerequisite Requirements

Candidates for admission must have a baccalaureate degree in Computer Science or a related field from a regionally accredited four-year college or university.

Admission Requirements

Unconditional Admission

1. Hold a bachelor's degree in Computer Science (CS) or a related field from a regionally accredited four-year college or university with a minimum overall undergraduate grade point average of 2.5 (on a 4.0 scale) or a 3.0 grade point average for the last 60 semester hours. All hours attempted in the term in which the 60 semester hours were reached will be used to calculate the grade point average. Official transcripts are required.
2. An acceptable score on the appropriate entrance exam [GRE 294 (920 on the old exam) (verbal plus quantitative)].

Conditional Admission

For those students who cannot satisfy all unconditional admission requirements, conditional admission may be granted under certain circumstances. Individuals admitted on a conditional basis may satisfy the requirements for unconditional admission as follows:

1. Students failing to achieve the minimum entrance exam score exam [GRE 294 (920 on the old exam) (verbal plus quantitative)], may satisfy the test requirement by successfully completing nine semester hours of graduate CS courses with a minimum grade point average of 3.0.
2. Students not having a 2.5 undergraduate grade point average may satisfy the requirement by the successful completion of nine semester hours of graduate CS courses with a minimum grade point average of 3.0.
3. A student with a bachelor's degree outside the field of CS may satisfy the bachelor's degree requirement by completing ALL of the following courses or their equivalent:
 - MTH 2215 – Applied Discrete Mathematics
 - CS 2250 – Computer Science I and
 - CS 2255 – Computer Science II
 - or
 - CS 3360 – Concepts of Object Oriented Programming I
 - CS 3310 – Foundations of Computer Science
 - CS 3323 – Data Structures
 - CS 4445 – Data Communication and Networking

Additional courses may be required by the CS Graduate Advisor depending on the student's background. A student must complete all courses with a grade point average of 3.0. **Note:** To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students receiving Federal Financial Aid may NOT enroll in undergraduate courses after they have begun

graduate coursework.

Transfer of Credit

A maximum of four courses (12 semester credit hours) taken at another regionally accredited institution, each with a “B” or better grade, can be applied toward the degree. These courses must be comparable in catalog description to Troy University courses in the department’s graduate program and must be recommended for transfer credit by the Chair of the Department of Computer Science and approved by the Dean of the Graduate School. Non-thesis students who transfer a “core” course are still required to take a written comprehensive exam based on the material presented at Troy University.

Degree Options

There are two degree options: thesis and non-thesis. In the thesis option, the student must successfully complete and defend a thesis as well as complete other requirements stated below. See Thesis Guidelines for additional information. In the non-thesis option, the student must pass a written comprehensive exam and must successfully complete a research paper.

Degree Requirements

The successful completion of 33 semester hours, including 6 hours of thesis research for the thesis option and 33 semester hours, including 3 hours of research project for the non-thesis option, with an overall grade point average of 3.0, and successful completion of a thesis or a paper. If the student makes a “D” or “F” in a core course, the course must be retaken. In both cases, a student must complete the Core Courses and choose one of the several specialization concentrations.

Thesis	Non-Thesis
1. Complete 33 SH of graduate-level courses to include 6 SH of course CS 6699 and 3 SH of CS 6625	1. Complete 33 SH of graduate-level courses to include 3 SH of CS 6625;
2. Maintain a minimum overall 3.0 GPA; AND	2. Maintain a minimum overall 3.0 GPA
3. Successfully complete and defend a thesis.	3. Pass the written comprehensive examination; AND
4. 6 hours of thesis research & complete an approved research paper.	4. Complete an approved research paper.

Curriculum

All courses offer three semester hours of credit.

Artificial Intelligence Concentration

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (9 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6678	3	Advanced Artificial Intelligence
CS 6682	3	Machine Learning

Elective Courses (15 sh)

Select 15 hours of advisor- approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (15 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6678	3	Advanced Artificial Intelligence
CS 6682	3	Machine Learning
CS 6699	3-6	Research and Thesis (6 sh)

Elective Courses (9sh)

Select 9 hours of advisor-approved Computer Science graduate courses.

Bioinformatics Concentration

(Optionally, at least two graduate level courses taken in biology department can be counted towards the degree requirements.)

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (9 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6630	3	Introduction to Bioinformatics
CS 6682	3	Machine Learning

Elective Courses (15 sh)

Select 15 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (15 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6630	3	Introduction to Bioinformatics
CS 6682	3	Machine Learning
CS 6699	3-6	Research and Thesis (6 sh)

Elective Courses (9 sh)

Select 9 hours of advisor-approved Computer Science graduate courses.

Cloud and Big Data Concentration

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (9 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6634	3	Cloud Computing
CS 6661	3	Big Data Algorithms and Systems

Elective Courses (15 sh)

Select 15 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (15 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6634	3	Cloud Computing
CS 6661	3	Big Data Algorithms and Systems
CS 6699	3-6	Research and Thesis (6)

Elective Courses (9 sh)

Select 9 hours of advisor-approved Computer Science graduate courses.

Computer Network and Security Concentration

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (9 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6674	3	Network and Information Security
CS 6676	3	Advanced Computer Network

Elective Courses (15 sh)

Select 15 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (15 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6674	3	Network and Information Security
CS 6676	3	Advanced Computer Network
CS 6699	3-6	Research and Thesis

Elective Courses (9 sh)

Select 9 hours of advisor-approved Computer Science graduate courses.

Cyber Security Concentration

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (12 sh)

CS 6622	3	Introduction to Cybersecurity
CS 6625	3	Specialized Study in Computer Science
CS 6674	3	Network and Information Security
CS 6679	3	Advanced Penetration Testing and Network Defense

Elective Courses (12 sh)

Select 12 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (18sh)

CS 6622	3	Introduction to Cybersecurity
CS 6625	3	Specialized Study in Computer Science
CS 6674	3	Network and Information Security
CS 6679	3	Advanced Penetration Testing and Network Defense

CS 6699 3-6 Research and Thesis (6 sh)

Elective Courses (6 sh)

Select 6 hours of advisor-approved Computer Science graduate courses.

Data Science Concentration

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (12sh)

CS 6625	3	Specialized Study in Computer Science
CS 6632	3	Computer Vision
CS 6636	3	Data Visualization and Exploration
CS 6682	3	Machine Learning

Elective Courses (12 sh)

Select 12 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (18 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6632	3	Computer Vision
CS 6636	3	Data Visualization and Exploration
CS 6682	3	Machine Learning
CS 6699	3-6	Research and Thesis (6sh)

Elective Courses (6 sh)

Select 6 hours of advisor-approved Computer Science graduate courses.

Software Development Concentration

Core Courses (9 sh)

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)

Required Courses: (9 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6640	3	Advanced Database Concepts
CS 6680	3	Advanced Software Engineering

Elective Courses (15 sh)

Select 15 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)

Required Courses: (15 sh)

CS 6625	3	Specialized Study in Computer Science
CS 6640	3	Advanced Database Concepts
CS 6680	3	Advanced Software Engineering
CS 6699	3-6	Research and Thesis (6)

Elective Courses (9 sh)

Select 9 hours of advisor-approved Computer Science graduate courses.

Video Game Design Concentration**Core Courses (9 sh)**

CS 5545	3	Computer Architecture
CS 5549	3	Analysis of Algorithms
CS 5550	3	Operating System Principles

Select one option below:

Non-Thesis Option: (24 sh)**Required Courses: (12 sh)**

CS 6625	3	Specialized Study in Computer Science
CS 6666	3	Computer Graphics
CS 6678	3	Advanced Artificial Intelligence
CS 6681	3	Video Game Design and Development

Elective Courses (12 sh)

Select 12 hours of advisor-approved Computer Science graduate courses.

Thesis Option: (24 sh)**Required Courses: (18 sh)**

CS 6625	3	Specialized Study in Computer Science
CS 6666	3	Computer Graphics
CS 6678	3	Advanced Artificial Intelligence
CS 6681	3	Video Game Design and Development
CS 6699	3-6	Research and Thesis (6)

Elective Courses (6 sh)

Select 6 hours of advisor-approved Computer Science graduate courses.

Comprehensive Exam

A candidate that chooses the non-thesis option must pass the comprehensive exam before the degree can be awarded. The comprehensive exam should be taken during the students' last semester of course work. The exam format is a written exam covering the basic core courses only. Students must pass all of the 3 sections of the exam.

Thesis/Project Proposal

Students who choose the thesis option must prepare a thesis proposal no later than the second graduate academic semester and must be approved by the thesis proposal committee.

Elective Courses: (12/15 sh)

CS 6635	3	Image Processing
CS 6640	3	Advanced Database Concepts
CS 6643	3	Theory and Design of Compilers
CS 6646	3	Information Systems for Operations and Management
CS 6647	3	Simulation and Modeling
CS 6648	3	Optimization Modeling
CS 6660	3	Algorithmic Graph Theory
CS 6664	3	High-Performance Computing
CS 6666	3	Computer Graphics
CS 6668	3	Network Security
CS 6670	3	Applied System Analysis and Design

Other Electives (approved by adviser—semester hours vary)

CS 6625, 6626, 6627	Specialized Study in Computer Science*
CS 6649	Special Topics in Computer Science
CS 6699	Research and Thesis

**MASTER OF SCIENCE IN
CRIMINAL JUSTICE**

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

The purpose of the Master of Science degree in Criminal Justice is to broaden and enhance each student's ability to understand, analyze and evaluate issues that confront the American criminal justice system. The objectives of the program's core coursework are (a) the analysis of personnel situations in light of standard personnel processes applying major personnel laws and regulations to situations arising in criminal justice organizations; (b) demonstrate a comprehensive understanding of the evolution of criminal law and procedures as evidenced by recent U.S. Supreme Court decisions; (c) critically evaluate the scholarly evidence considering the effectiveness of various crime control policies employed by the police, the courts, and the correctional system with both juvenile and adult offenders; and (d) explain situations in criminal justice and criminal behavior by applying various criminological theories; and (e) demonstrate an ability to appropriately apply various research designs and methodologies in criminal justice situations. Specific institutional objectives of the program are as follows:

1. to prepare students to fulfill a need in American society for professional law enforcement personnel and competent criminal justice administrators by providing educational programs that develop each student's problem solving skills in ways that prepare the student to address the issues that arise in the dynamic and evolving criminal justice field;
2. to develop each student's ability to synthesize and apply knowledge of the critical theories and concepts in the field of criminal justice in his/her problem solving analysis;
3. to develop each student's ability to identify and develop alternative solutions to problems that confront the modern criminal justice system based on his/her knowledge of current theories and concepts;
4. to develop each student's ability to evaluate and appropriately choose solutions to problems that confront the criminal justice system;
5. to develop each student's ability to effectively communicate the results of his/her analysis.
6. to provide students who seek administrative and managerial positions in the field of criminal justice with the credentials to qualify for those positions;
7. to provide an appropriate program of graduate study for students who are interested in research in the field of criminal justice and in advanced graduate study.

Prerequisite Requirements

The minimum requirement for admission to the Master of Science program in Criminal Justice is a baccalaureate degree from a regionally accredited four-year institution. Students who desire to enter this program but do not have a degree in criminal justice, police administration, law enforcement, or corrections may be required to meet other criteria such as additional coursework regarding undergraduate or professional preparation. Significant professional experience may be considered. However, admission to the program does not imply official admission for the degree.

Admission Requirements For Master of Science in Criminal Justice

1. Completed Application for Admission to the Graduate School.
2. Official transcript(s)
AND
3. A letter of recommendation that addresses the applicant's potential for success in the Master of Criminal Justice graduate program

Unconditional Admission

Hold a baccalaureate degree from a regionally accredited college or university with a minimum overall undergraduate grade point average of 2.5 (4.0 scale) or a 3.0 grade point average on the last 30 semester hours. All hours attempted in the term in which the 30 semester hours were reached will be used to calculate the grade point average.

Conditional Admission

Conditional Admission does not apply to this program.

Transfer Credit

A maximum of four courses (12 semester hours) taken at another regionally accredited institution each with a grade of "B" or better can be applied toward the degree. These courses must be comparable in catalog description to Troy University courses in the Criminal Justice Graduate Program and be approved by the main campus dean/department chair. If the student transfers a "core" or "required course," he/she is still subject to a written comprehensive exam based on the material presented at Troy University.

Degree Requirements

Students completing the degree program with a GPA of 3.0 or higher, a grade of "B" or better in CJ 6650 Research Methods for Criminal Justice and passing a written comprehensive exam will be eligible to be awarded the degree of Master of Science in Criminal Justice. If the student makes a "D" or "F" in a core course, the course must be retaken. If the student makes a "D" or "F" in an elective course, the course may either be retaken or another elective taken in its place.

Curriculum

The Master of Science in Criminal Justice is a 30 semester hours program. Students may select either Criminal Justice Studies or Security Studies Concentration. All courses offer three semester hours of credit.

Required Courses (12 sh)

CJ 6620	3	Current Trends in Criminal Law and Procedure
CJ 6622	3	Seminar in Administration of Justice
CJ 6650	3	Survey of Research Methods in Criminal Justice
CRM 6636	3	Criminological Theory

Criminal Justice, General Concentration (12 sh)

Select any 4 courses from the following graduate courses and/or advisor approved electives.

CJ 6610	3	Principles of Administration
CJ 6621	3	Current Issues in Corrections
CJ 6624	3	Court Administration
CJ 6625	3	Specialized Study
CJ 6630	3	Juvenile Justice
CJ 6635	3	Community Based Corrections/ Correctional Systems
CJ 6637	3	Selected Topics in Criminology

CJ 6638	3	Seminar in Civil Liberties Related to Corrections
CJ 6640	3	Seminar in Law Enforcement
CJ 6641	3	Capital Punishment
CJ 6644	3	Administrative Law
CJ 6645	3	Ethics in Criminal Justice Organizations
CJ 6646	3	Sentencing and Punishment
CJ 6647	3	AI and Game Forensics
CJ 6648	3	Cyber Forensics
CJ 6649	3	Statistics for Criminal Justice Research
CJ 6652	3	Seminar in Corrections
CJ 6655	3	Selected Topics in Criminal Justice
CJ 6660	3	Advanced Readings in Criminal Justice
CJ 6671	3	Organizational Theory
CJ 6692	3	Internship 1 in Criminal Justice
CJ 6696	3	Internship 2 in Criminal Justice
CRM 5520	3	Crime Analysis
CRM 6620	3	Drugs, Crime, and Justice
CRM 6625	3	Evidence-Based Crime Prevention
CRM 6630	3	Criminal Justice Policy
CRM 6637	3	Selected Topics in Criminology
SOC 6628	3	Gender, Crime, and Justice
SOC 6633	3	Race, Crime, and Justice

Security Studies Concentration: (12 sh)

Select any 4 courses from the following graduate courses and/or advisor approved electives.

CJ 6639	3	Seminar in Homeland Security
CJ 6642	3	Cyber and Information Threat Management
CJ 6643	3	Transportation and Border Security
CJ 6645	3	Ethics in Criminal Justice Organizations
CJ 6653	3	Seminar in Intelligence
CJ 6656	3	Selected Topics in Security
CJ 6665	3	Emergency and Crisis Management
CJ 6667	3	Intelligence Analysis
CJ 6669	3	Legal Aspects of Security
CJ 6671	3	Organizational Theory
CJ 6680	3	Criminal Justice Study Abroad
CJ 6692	3	Internship 1 in Criminal Justice
CJ 6696	3	Internship 2 in Criminal Justice
CRM 5520	3	Crime Analysis
CRM 6645	3	Seminar in Transnational Crime
IR 6635	3	National Security Policy
IR 6685	3	Terrorism and Political Violence

Electives (6 sh)

Select 6 Semester Hours of graduate coursework from Criminal Justice or Criminology disciplines, SOC 6628, or SOC 6633.

MASTER OF SCIENCE IN ENVIRONMENTAL AND BIOLOGICAL SCIENCES

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

Purpose and Goals

The Master of Science Graduate Program in Environmental and Biological Sciences is designed to broaden the student's perspective and provide skills and knowledge for understanding and solving problems in the environmental and biological sciences. The program teaches students the direct and indirect economic, social, and political contributions of the environmental and biological sciences. The program underscores the interdisciplinary and cooperative nature of environmental and biological issues. The program teaches how to manage conflicts and emphasizes the importance of effectively communicating with the private and public sectors, regulatory agencies, interest groups, and communities. The program objectives are listed below:

1. To demonstrate the pivotal role of the environmental and biological sciences in understanding and addressing environmental, ecological, medical, agricultural, and policy-related issues;
2. To promote the professional development of students for entry and advancement in the private and public sectors as scientists, educators, administrators, or managers;
3. To provide students with the necessary skills for performing research, reviewing and evaluating regulatory guidelines, and writing professional documents;
4. To foster an understanding and appreciation of the role of values and ethics in research, management, and institutional performance;
5. To strengthen the academic foundations of students seeking entry into professional schools and into doctoral programs at graduate schools; and
6. To provide teachers with opportunities for advancement and to broaden and update their knowledge in order to enrich the classroom experience of their students.

Prerequisite Requirements

Candidates for admission must have a baccalaureate degree, preferably in a scientific subject area. Candidates should have completed Ecology (BIO 2229 / BIO L229) and one junior/senior level (3000/4000) Biology course. Additionally, General Chemistry I, II (CHM 1142 / CHM L142, CHM 1143 / CHM L143) and Statistics (STAT 22010) are required.

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students receiving Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

Admission Requirements for Master of Science in Environmental and Biological Sciences

Unconditional Admission

Unconditional admission may be granted to students who fulfill the

following requirements:

1. Hold a baccalaureate degree from a regionally accredited university with a minimum overall undergraduate grade point average of 2.5 (4.0 scale) or a 3.0 grade point average on the last 30 semester hours.
2. Demonstrate an adequate academic background in the sciences that includes natural or biological sciences, general chemistry, and statistics.
3. Have an acceptable score on the appropriate entrance exam [GRE 290 (850 on the old exam) (verbal plus quantitative)].

Conditional Admission

Conditional admission may be granted under certain circumstances to applicants who cannot satisfy all unconditional admission requirements to the graduate program. See Conditional Admission requirements in the general regulations section of this catalog. Students with a baccalaureate degree from an unaccredited or otherwise accredited institution should see Unaccredited or Otherwise Accredited Student Admission.

Students admitted conditionally only because of a low undergraduate grade point average will be cleared of their conditional status if, at the completion of nine semester hours, they have achieved a 3.0 grade point average or greater on all graduate work attempted. Students must clear the conditional admission requirement of a 3.0 average at the completion of nine semester hours, or they will be dropped from the graduate program for one calendar year after which they may petition the Dean of the Graduate School to re-enter.

Students admitted conditionally only because of a low test score will be granted unconditional admission prior to the completion of nine semester hours provided they have maintained a 3.0 grade point average on all graduate work attempted and have retaken the test and received a satisfactory score.

Students with academic deficiencies (coursework, GPA, GRE score) may be required to complete additional course work before being granted unconditional admission to the program.

Thesis-Track Admission

Candidates will not be admitted into a thesis-track unless they have identified a thesis research supervisor and that faculty member has agreed to act as that student's thesis advisor. Candidates can apply to a non-thesis track concentration and change to a thesis track concentration after a thesis advisor has been identified. Conditionally accepted students cannot be accepted into a thesis track concentration until they have cleared conditional status.

Transfer Credit

A maximum of 12 semester hours taken at another regionally accredited institution, each with a "B" grade or better, can be applied toward the degree. These courses must be comparable in catalog description to Troy University courses in the Department's graduate program and also be approved by the Department Chair. Non-thesis students who transfer a "core" course are still required to take a written comprehensive exam based on the material presented at Troy University.

Degree Requirements

1. Unconditional Admission
2. Completion of curriculum listed below. If the student makes a "D" or "F" in a core course, the course must be retaken. If the student makes a "D" or "F" in an elective course, the course

may either be retaken or another elective taken in its place.

3. Successful completion of EBS 6691 with a "B" or better
4. Overall 3.0 GPA
5. Successful completion of the comprehensive examination for non-thesis students or a thesis, including a presentation of a public seminar, for thesis students

A student who successfully completes the requirements listed above will be awarded the Master's degree (M.S.) in Environmental and Biological Sciences.

Curriculum for M.S. in Environmental and Biological Sciences

The Master of Science in Environmental and Biological Science degree is offered as a 30 semester hour thesis option, or 36 hour non-thesis option.

Required Core Courses (9 sh)

<i>BIO 6601</i>	3	<i>Environmental and Biological Ethics</i>
<i>BIO 6624</i>	3	<i>Public Health</i>
<i>BIO 6691</i>	3	<i>Research Methodology and Experimental Design</i>

Select one option below:

Non-Thesis Option :

<i>Required Core Classes</i>	9 sh
<i>Advisor-approved electives</i>	27 sh
Total	36 sh

Comprehensive Examination

After the completion of all core courses in the non-thesis option, students must successfully complete a comprehensive examination. The comprehensive exam is given in the semester or term prior to graduation. Students should work closely with their advisor to prepare for their comprehensive exams, which will be prepared, administered, and evaluated by the graduate committee.

OR

Thesis Option: (30 sh minimum)

The Thesis Option includes:

<i>Required Core Classes</i>	9 sh
<i>Thesis hours</i>	6 sh
<i>BIO 6695 6 Thesis Research</i>	
<i>Advisor-approved electives</i>	15 sh
Total	30 sh

MASTER OF SCIENCE IN INTERNATIONAL RELATIONS

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

World politics have undergone a profound alteration over the past two decades. The collapse of the former Soviet Union, the evolution of the European Union, events in the Greater Middle East, the rising power of China as well as other developing countries, the influence of non-state actors such as terrorist groups and NGOs, plus concerns about national and global economic issues demonstrate a paradigm shift in international affairs. The Cold War, which dominated global events for nearly five decades, is over,

yet what will replace the norms and institutions of that era is not clear. What is apparent, however, is that the world community is increasingly interdependent, that traditional identities and values are being reexamined, and that new challenges are likely to emerge.

The Master of Science in International Relations (MSIR) degree program is a 12-course, 36-credit-hour curriculum of study designed to provide students with the foundation and knowledge needed to understand the context and conduct of international relations. Students are encouraged to gain a wide-ranging appreciation of the political, historical, cultural, economic, and geographical factors that affect international relations. This appreciation is accomplished through a program of instruction focused on international relations theory and its application but drawing from disciplines such as history, economics, and geography. Students also acquire methodological and analytical skills that improve their understanding and ability to evaluate national and global developments.

The program offers courses covering history, regional studies, comparative government, foreign policy, the global economy, geography, conflict management, national security, global climate change, international organization, international law, intercultural relations, and the politics of developing countries.

Prerequisite Requirements

Candidates for admission must have a baccalaureate degree in any subject area from a regionally accredited college or university. There are no prerequisite course requirements. Students with undergraduate degrees in areas not included in the curriculum are encouraged to inquire about the program.

Graduates of the Master of Science in International Relations program include individuals with undergraduate degrees in the social sciences as well as in such areas as English, foreign language, engineering, chemistry, mathematics, psychology, education, and business administration.

Admission Requirements for the Master of Science in International Relations Degree

Unconditional Admission

1. Hold a master's or higher degree from a regionally accredited university. No test score is required. An official transcript showing completion of a master's or higher degree is required.

OR

2. Hold a baccalaureate degree from a regionally accredited college or university with a minimum overall undergraduate grade point average of 2.5 (4.0 scale) or a 3.0 grade point average on the last 30 semester hours. All hours attempted in the term in which the 30 semester hours were reached will be used to calculate the grade point average. All transcripts from all colleges or universities attended are required.

AND

3. Have an acceptable score on the appropriate entrance exam [GRE 294 (920 on the old exam) (verbal plus quantitative), MAT 396, GMAT 490].
4. The GRE/GMAT/MAT requirement may be waived under the following conditions

A. If the applicant holds a baccalaureate degree from a regionally accredited college or university or equivalent foreign university with a minimum overall undergraduate grade point average of 3.0 (4.0 scale)

OR

B. If the applicant holds a baccalaureate degree from Troy University with a minimum overall undergraduate

GPA of 2.5 (4.0 scale) or a 3.0 on the last 30 semester hours. All hours attempted in the term in which the 30 semester hours were reached will be used to calculate the GPA.

OR

C. If the applicant is an officer or senior NCO in the U.S. military in good standing and holds a baccalaureate degree from an accredited college or university with a minimum overall undergraduate GPA of 2.5 (4.0 scale) or a 3.0 on the last 30 semester hours. All transcripts from all colleges or universities attended are required.

Conditional Admission

Conditional admission may be granted under certain circumstances to applicants who cannot satisfy all unconditional admission requirements to a graduate program. See conditional admission requirements in the General Regulations section of this Catalog.

Students admitted conditionally only because of a low undergraduate grade point average will be cleared of their conditional status if, at the completion of nine semester hours, they have achieved a 3.0 grade point average or greater on all graduate work attempted. Students must clear the conditional admission requirement of a 3.0 average at the completion of nine semester hours, or they will be dropped from the graduate program for one calendar year after which they may petition the Dean of the Graduate School to re-enter.

Students admitted conditionally only because of a low test score will be granted unconditional admission prior to the completion of nine semester hours provided they have maintained a 3.0 grade point average on all graduate work attempted and have retaken the test and received a satisfactory score.

Transfer Credit

A maximum of four courses (12 semester credit hours) taken at another regionally accredited institution, each with a "B" or better grade, can be applied toward the degree; graduate-level courses completed by U.S. service personnel in Professional Military Education programs may also qualify for transfer credit. These courses must be comparable in catalog description to Troy University courses in the MSIR program and must be recommended for transfer credit by the Chair of the Department of Political Science and approved by the Dean of the Graduate School.

Degree Requirements

1. Unconditional admission
2. Overall 3.0 GPA
3. Completion of the curriculum listed below. If the student makes a "D" or "F" in a core course, the course must be retaken. If the student makes a "D" or "F" in an elective course, the course may either be retaken or another elective taken in its place.
4. Successful completion ("B" or better) of IR 6690 Capstone or Thesis
5. Successful completion ("B" or better) of IR 6601 Research Methods in International Relations, the program research requirement

*The thesis option is not available to Troy Online students.

Curriculum

All courses offer three semester hours credit.

The MSIR curriculum of study consists of three integral components.

1. Five core required courses with a "B" or better in IR 6601

Research Methods in International Relations

2. The selection and completion of one program concentration
3. The successful completion of the capstone course with a grade average of B or higher

Non-Thesis Option

Core Courses	15 sh
<u>Concentration Elective Courses</u>	<u>21 sh</u>
Total	36 sh

Thesis Option

Core Courses	12 sh
Concentration Elective Courses	18 sh
<u>Thesis Hours</u>	<u>6 sh</u>
Total	36 sh

REQUIRED CORE COURSES (12-15 sh)

All MSIR students must take the following courses:

IR 6601*	3	Research Methods in International Relations
IR 6603	3	Introduction to International Relations
IR 6620	3	International Political Economy
IR 6652	3	International Relations Theory
IR 6690	3	Capstone (Non-Thesis Students only)

*IR 6601 must be taken within the first six classes

MSIR CONCENTRATION OPTIONS

Students must choose ONE of the following concentrations:

- Global Studies (21 sh or 18 sh with Thesis)
- National Security Affairs (21 sh or 18 sh with Thesis)
- Regional Affairs (21 sh or 18 sh with Thesis)

GLOBAL STUDIES CONCENTRATION (21 sh or 18 sh with Thesis)

Students may choose any 18-21 sh of the following courses:

HIS 5503	3	Contemporary Europe
HIS 5504	3	Military History of the United States
IR 6600	3	Selected Topics in International Relations
IR 6602	3	Geostrategic Studies
IR 6610	3	International Organizations
IR 6611	3	Comparative Government
IR 6614	3	International Law
IR 6615	3	Comparative Politics of North Korea
IR 6616	3	East Asian Security
IR 6617	3	Chinese Security
IR 6618	3	Chinese Intelligence
IR 6621	3	East Asian Political Economy
IR 6622	3	European Security
IR 6623	3	Arab-Israeli Security
IR 6624	3	Geopolitics of Eurasia
IR 6625	3	Specialized Study in International Relations
6626		
6627		
IR 6628	3	International Political Geography
IR 6631	3	Intercultural Relations
IR 6632	3	Arctic and Antarctic Security
IR 6634	3	Revolutions and Change
IR 6635	3	National Security Policy
IR 6636	3	Diplomacy
IR 6637	3	Counter Insurgency and Irregular Warfare

IR 6638	3	<i>European Political Economy and the European Union</i>	IR 6614	3	<i>International Law</i>
IR 6639	3	<i>Russian Security</i>	IR 6615	3	<i>Comparative Politics of North Korea</i>
IR 6640	3	<i>Government and Politics of Developing Nations</i>	IR 6616	3	<i>East Asian Security</i>
IR 6641	3	<i>Comparative Politics of Latin America</i>	IR 6617	3	<i>Chinese Security</i>
IR 6642	3	<i>Comparative Politics of Russia and Eastern Europe</i>	IR 6618	3	<i>Chinese Intelligence</i>
IR 6643	3	<i>Russian Intelligence in International Relations: From the KGB to the FSB</i>	IR 6622	3	<i>European Security</i>
IR 6644	3	<i>Comparative Politics of the Middle East</i>	IR 6623	3	<i>Arab-Israeli Security</i>
IR 6645	3	<i>Comparative Politics of East Asia</i>	IR 6624	3	<i>Geopolitics of Eurasia</i>
IR 6646	3	<i>Comparative Politics of South Asia</i>	IR 6632	3	<i>Arctic and Antarctic Security</i>
IR 6647	3	<i>Comparative Politics of Western Europe</i>	IR 6635	3	<i>National Security Policy</i>
IR 6648	3	<i>Comparative Politics of Sub-Saharan Africa</i>	IR 6637	3	<i>Counter Insurgency and Irregular Warfare</i>
IR 6649	3	<i>Cyber Warfare and International Relations</i>	IR 6639	3	<i>Russian Security</i>
IR 6650	3	<i>Environmental Security, Conflict, and Development</i>	IR 6643	3	<i>Russian Intelligence in International Relations: From the KGB to the FSB</i>
IR 6651	3	<i>Contemporary American Foreign Policy</i>	IR 6649	3	<i>Cyber Warfare and International Relations</i>
IR 6655	3	<i>International Conflict Management</i>	IR 6650	3	<i>Environmental Security, Conflict, and Development</i>
IR 6656	3	<i>Strategy</i>	IR 6651	3	<i>Contemporary American Foreign Policy</i>
IR 6657	3	<i>Middle Eastern Security</i>	IR 6655	3	<i>International Conflict Management</i>
IR 6658	3	<i>Middle Eastern Political Economy</i>	IR 6656	3	<i>Strategy</i>
IR 6659	3	<i>Russian Hybrid Warfare</i>	IR 6657	3	<i>Middle Eastern Security</i>
IR 6660	3	<i>Military Strategy and International Relations</i>	IR 6659	3	<i>Russian Hybrid Warfare</i>
IR 6661	3	<i>US Intelligence in International Relations</i>	IR 6660	3	<i>Military Strategy and International Relations</i>
IR 6663	3	<i>Game Theory and Forecasting</i>	IR 6661	3	<i>US Intelligence in International Relations</i>
IR 6664	3	<i>European Nationalism</i>	IR 6663	3	<i>Game Theory and Forecasting</i>
IR 6665	3	<i>Readings in International Relations</i>	IR 6671	3	<i>European Intelligence in International Relations</i>
IR 6668	3	<i>Thesis</i>	IR 6673	3	<i>Iranian Security</i>
IR 6669	3	<i>Thesis</i>	IR 6684	3	<i>Political Violence in Latin America</i>
IR 6671	3	<i>European Intelligence in International Relations</i>	IR 6685	3	<i>Terrorism and Political Violence</i>
IR 6673	3	<i>Iranian Security</i>	IR 6686	3	<i>Human Security in Latin America</i>
IR 6681	3	<i>Tribalism and Colonialism in Africa</i>	IR 6691	3	<i>Contemporary Conflicts</i>
IR 6684	3	<i>Political Violence in Latin America</i>	IR 6693	3	<i>Space Security</i>
IR 6685	3	<i>Terrorism and Political Violence</i>	IR 6694	3	<i>African Terrorism</i>
IR 6686	3	<i>Human Security in Latin America</i>	IR 6695	3	<i>Sub-Saharan African Diplomacy and Economics</i>
IR 6687	3	<i>Latin American Political Economy</i>	IR 6696	3	<i>Women, Peace, and Security</i>
IR 6688	3	<i>Political Islam</i>	PA 6610	3	<i>Foundations of Public Administration</i>
IR 6691	3	<i>Contemporary Conflicts</i>	PA 6622	3	<i>Public Policy</i>
IR 6692	3	<i>Economic Statecraft</i>			
IR 6693	3	<i>Space Security</i>			
IR 6694	3	<i>African Terrorism</i>			
IR 6695	3	<i>Sub-Saharan African Diplomacy and Economics</i>			
IR 6696	3	<i>Women, Peace, and Security</i>			

NATIONAL SECURITY AFFAIRS CONCENTRATION (21 sh or 18 sh with Thesis)

Students must choose any three of the following courses: (9 sh)

HIS 5504	3	<i>Military History of the United States</i>
IR 6600	3	<i>Selected Topics in International Relations</i>
IR 6602	3	<i>Geostrategic Studies</i>

Students must choose 9-12 semester hours from the remaining electives listed for the Global Studies Concentration: (9-12sh)

REGIONAL AFFAIRS CONCENTRATION (21 sh or 18 sh with Thesis)

Concentration Relevant Electives Courses: (12 sh)

Students must take 12 hours from one of the following regional groups:

Middle East and North Africa

IR 6623	3	<i>Arab-Israeli Security</i>
IR 6624	3	<i>Geopolitics of Eurasia</i>
IR 6644	3	<i>Comparative Politics of the Middle East</i>
IR 6648	3	<i>Comparative Politics of Sub-Saharan Africa</i>
IR 6657	3	<i>Middle Eastern Security</i>
IR 6658	3	<i>Middle Eastern Political Economy</i>
IR 6673	3	<i>Iranian Security</i>
IR 6681	3	<i>Tribalism and Colonialism in Africa</i>
IR 6685	3	<i>Terrorism and Political Violence</i>
IR 6688	3	<i>Political Islam</i>

IR 6694 3 *African Terrorism*

Asia

IR 6615 3 *Comparative Politics of North Korea*
 IR 6616 3 *East Asian Security*
 IR 6617 3 *Chinese Security*
 IR 6618 3 *Chinese Intelligence*
 IR 6621 3 *East Asian Political Economy*
 IR 6624 3 *Geopolitics of Eurasia*
 IR 6645 3 *Comparative Politics of East Asia*
 IR 6646 3 *Comparative Politics of South Asia*

Europe

HIS 5503 3 *Contemporary Europe*
 IR 6622 3 *European Security*
 IR 6624 3 *Geopolitics of Eurasia*
 IR 6638 3 *European Political Economy and the European Union*
 IR 6639 3 *Russian Security*
 IR 6642 3 *Comparative Politics of Russia and Eastern Europe*
 IR 6643 3 *Russian Intelligence in International Relations: From the KGB to the FSB I*
 R 6647 3 *Comparative Politics of Western Europe*
 IR 6659 3 *Russian Hybrid Warfare*
 IR 6664 3 *European Nationalism*
 IR 6671 3 *European Intelligence in International Relations*

Latin America

IR 6641 3 *Comparative Politics of Latin America*
 IR 6684 3 *Political Violence in Latin America*
 IR 6686 3 *Human Security in Latin America*
 IR 6687 3 *Latin American Political Economy*

Approved Electives Courses: (9 sh)

Non-thesis students must choose three courses from the remaining electives listed for the Global Studies Concentration and thesis students must choose two.

THE THIRD COMPONENT OF THE MSIR DEGREE PROGRAM IS THE SUCCESSFUL COMPLETION OF ONE OF THE FOLLOWING OPTIONS:

1. Capstone—Students choosing this option must take the capstone class in their final semester or term and all core classes need to be completed prior to enrolling in the class. Students will complete a research paper that demonstrates their ability to integrate and synthesize information obtained from the course work and also shows their ability to apply the theoretical concepts of our discipline to real world subjects. The paper will be graded by a minimum of two full-time MSIR faculty members.
2. Thesis *— Students choosing the thesis option must register for IR 6668 (3 credit hours) and IR 6669 (3 credit hours) as their last two courses in the program. They must successfully research, write, and defend their thesis while taking IR 6668 and IR 6669. This process involves directed research in selected areas of international relations, based on the student's proposal, related to the student's needs, with the advice and approval of a thesis adviser and a faculty reader, and culminating in a substantive research paper of appropriate

depth and scholarship. Students will receive a Pass or Fail for the two thesis courses, no letter grade.

* *The thesis option is not available to Troy Online students. Divisional Chair approval is required prior to enrolling for the thesis option. Students must obtain faculty support for their thesis prior to seeking such approval.*

MASTER OF PUBLIC ADMINISTRATION

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

Mission Statement

The mission of Troy University's Master of Public Administration program is to strengthen the quality of public service by facilitating learning, promoting scholarship, improving practice, and engaging in public service. The program strives to develop graduates who bring to the public work force the intellectual acuity, ethical commitment and professional competence to effectively serve the public interest.

Admission Requirements for Master of Public Administration

Unconditional Admission

Applicants may be admitted unconditionally if they meet the following requirements:

1. Hold a master's or higher degree from a regionally accredited institution. No test score is required. An official transcript showing completion of a master's or higher degree is required.
- OR
2. Hold a baccalaureate degree from a regionally accredited college or university with a minimum overall undergraduate GPA of 2.5 (4.0 scale) or a 3.0 GPA on the last 30 semester hours. All hours attempted in the term in which the 30 semester hours were reached will be used to calculate the GPA. All transcripts from all colleges or universities attended are required.

Conditional Admission

Conditional admission may be granted under certain circumstances to applicants who cannot satisfy all unconditional admission requirements to the graduate program. See conditional admission requirements in the General Regulations section of this Catalog.

Students admitted conditionally only because of a low undergraduate grade point average will be cleared of their conditional status if, at the completion of nine semester hours, they have achieved a 3.0 grade point average or greater on all graduate work attempted. Students must clear the conditional admission requirement of a 3.0 average at the completion of nine semester hours, or they will be dropped from the graduate program for one calendar year after which they may petition the Dean of the Graduate School to re-enter.

Readmission of MPA Students in Good Standing

Students who have not been enrolled for three or more years in the MPA program must complete a Readmission to Graduate School Application and meet degree requirements as stated in the most

current catalog upon readmission. Students will be readmitted to the most current catalog at the time of readmission.

Transfer Credit

A maximum of 12 credit hours taken at another regionally accredited university with a grade of "B" or better can be applied to the MPA degree. These courses must be comparable in catalog description to courses in the MPA program and recommended by the Director of the MPA Program and approved by the Dean of the Graduate School. Professional Military Education (PME) courses and programs will not be accepted as transfer credits for Public Administration core courses but may be accepted as transfer credit for elective courses.

Internship Requirements

All students are required to complete an internship to graduate from the MPA program. Students with at least one year of professional experience managing people, organizations, programs, or financial resources may request a waiver from this requirement. Students who are granted a waiver will take an additional elective to complete the 36 hour program requirement. All internships must be approved in advance.

Research Requirement

For Initial Master's Degree

All graduate programs require certification of the student's ability to do research in a specialization. For the MPA program, this requirement is met by achieving a grade of "B" or better in PA 6601. Students must repeat PA 6601 if a grade of "C" or below is attained.

For Second Master's Degree

If the research requirement was completed for the first master's degree with a "B" or above, students are exempt from this requirement in the MPA program. Students exercising this exemption must complete an additional elective course in their program, or obtain approved transfer credit to achieve the minimum required credits for graduation.

Degree Requirements

1. Unconditional Admission
2. Overall 3.0 GPA
3. Successful completion of PA 6699, Capstone in Public Administration, with a grade of "B" or better
4. Completion of MPA Degree curriculum. If the student makes a "D" or "F" in a core course, the course must be retaken. If the student makes a "D" or "F" in an elective course, the course may either be retaken or another elective taken in its place.

Curriculum

The MPA degree curriculum consists of 12 courses (36 credit hours) including eight core courses (24 credits), an internship (3 credit hours), and three elective courses (9 credit hours).

Students who qualify for an internship waiver will complete an additional elective course (3 credit hours) in lieu of the internship.

Students should complete PA 6610 Global Challenges in Public Administration and PA 6601 Research Methods in Public Administration within their initial 12 hours in the MPA program and prior to taking PA 6622 and PA 6631.

Required Core Courses : (24 credit hours)

PA	6601	3	Research Methods in Public Administration
PA	6610	3	Global Challenges in Public Administration
PA	6622	3	Public Policy
PA	6624	3	Public Human Resource Management
PA	6650	3	Governmental Budgeting and Financial Management
PA	6665	3	Organizational Leadership
PA	6674	3	Ethics in Public Administration
PA	6699	3	Capstone in Public Administration

Required Internship (3 credit hours, unless waived)

PA 6694 Internship

Electives (9-12 credit hours)

Students must select courses from the following:
(Students may develop a specialization within their program by selecting electives with a common focus)

IR	6602	3	Geostrategic Studies
IR	6603	3	Introduction to International Relations
IR	6611	3	Comparative Government
IR	6614	3	International Law
IR	6630	3	Seminar in International Relations
IR	6631	3	Intercultural Relations
IR	6635	3	National Security Policy
IR	6651	3	Contemporary American Foreign Policy
IR	6656	3	International Power and Influence
IR	6660	3	Military Strategy and International Relations
IR	6662	3	Conflict Processes
PA	6603	3	Economics for Public Management
PA	6604	3	Workforce Planning and Staffing
PA	6605	3	Training and Development
PA	6606	3	Issues in Managing the Public Workforce
PA	6607	3	Performance Measurement and Management for Public and Nonprofit Organizations
PA	6608	3	Comparative Public Administration
PA	6620	3	Theory of Organizations
PA	6630	3	Strategic Planning
PA	6631	3	Program Evaluation
PA	6632	3	Arbitration, Collective Bargaining, and Labor Relations
PA	6640	3	Intergovernmental Relations
PA	6641	3	Social Marketing in Public Administration
PA	6643	3	Advanced Public Human Resources Management
PA	6644	3	Administrative Law
PA	6645	3	Managing Government Contracts
PA	6646	3	Organizational Behavior
PA	6661	3	Global Challenges in Leadership and Management
PA	6663	3	Global Health Administration
PA	6664	3	Global Perspectives in Local Government
PA	6666	3	Foundations of Nonprofit Organizations
PA	6667	3	Executive Leadership in Nonprofit Organizations

PA 6668	3	<i>Grant Management for Public and Nonprofit Organizations</i>
PA 6675	3	<i>Public Health Services Administration and Policy</i>
PA 6676	3	<i>Legal and Social Issues in Public Health Administration</i>
PA 6677	3	<i>Public Health Preparedness and Emergency Response</i>
PA 6678	3	<i>Introduction to Public Health</i>
PA 6679	3	<i>e-Governance</i>
PA 6694	3	<i>Internship</i>
PA 66XX	3	<i>Approved Adviser elective</i>

Specialized Elective Courses

PA 6625 Specialized Study in Public Administration or PA 6660 Readings in Public Administration may be utilized with the prior approval of the Director of the MPA Program. In combination, these courses may not be used for more than six total credit hours.

Certificate in Public Health Administration

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirement, transfer credit, and other critical policies and procedures.

Admission Requirements: Applicants who wish to pursue the Graduate Certificate in Public Health Administration must be admitted to the Graduate School. See Graduate Admissions Requirements.

Public Health Administration Concentration Requirements:

Competency ability to appraise the organizational environment with its culture, politics, and institutional setting, both internal and external, and to perform the basic functions of public health administration, while behaving and making decisions in an ethical manner.

Course Requirements: The Graduate Certificate in Public Health Administration requires 18 semester hours (6 courses):

Select 6 courses from the following:

PA 6641	3	<i>Social Marketing in Public Administration</i>
PA 6663	3	<i>Global Health Administration</i>
PA 6665	3	<i>Organizational Leadership</i>
PA 6675	3	<i>Public Health Services Administration and Policy</i>
PA 6676	3	<i>Legal and Social Issues in Public Health Administration</i>
PA 6677	3	<i>Public Health Preparedness and Emergency</i>
PA 6678	3	<i>Introduction to Public Health</i>

Admitted MPA students may qualify for the Certificate by completing the six required courses and maintaining an overall 3.0 GPA or better to meet certificate requirement.

Other Requirements: Students who wish to be issued a certificate must submit the following to their home campus: Certification Intent and Copy of Student Transcript.

MASTER OF SOCIAL SCIENCE

Students should consult the General Regulations section of the Graduate Catalog for additional information regarding Graduate School admission requirements, transfer credit, and other critical policies and procedures.

Mission statement

The Master of Social Science Degree (M.S.Sc.) is an interdisciplinary program for graduate students that offers a wide variety of disciplinary and interdisciplinary opportunities for advancing academic or career goals. The M.S.Sc. degree makes the Social Science resources of Troy University available for student-centered and highly individualized programs of graduate study. Students are welcome and encouraged to choose classes from around the University that suit their research interests.

The M.S.Sc. degree provides every student with a vibrant and collaborative intellectual community and core-course training in social science theory, analytical abilities, and methodology.

Depending on needs, individualized programs will provide students with skills to:

1. Provide services to a variety of public agencies and institutions.
2. Teach in one or a variety of Social Science subject areas at a college or university level. Eighteen hours taken in a single subject area (as part of the 36 hour master's degree) will provide qualifications to teach in that subject area.
3. Effectively communicate with individuals and groups from all backgrounds.
4. Develop methodologies and skills to facilitate societal change.
5. Pursue doctoral or professional school degrees.

Objectives

1. To prepare students to fulfill a need for professionals in the area of Social Science by providing educational programs that develop each student's problem solving skills to address issues that arise in the dynamic and evolving Social Sciences field;
2. To develop each student's ability to synthesize and apply knowledge of the critical theories and concepts in the field of Social Science in his/her problem solving analysis;
3. To develop each student's ability to identify and develop alternative solutions to problems that are confronted in the Social Sciences field;
4. To develop each student's ability to evaluate and appropriately choose solutions to problems confronted in the Social Sciences field;
5. To develop each student's ability to effectively communicate the results of his/her analysis;
6. To provide an appropriate program of graduate study for students who are interested in research in the field of Social Science and in advanced graduate study.

Prerequisite Requirements

The minimum requirement for admission to the Master of Social Sciences is a baccalaureate degree from a regionally accredited four year institution. Students who desire to enter this program but do not have a degree in Social Sciences or a closely related discipline may be required to meet other criteria such as additional coursework regarding undergraduate or professional preparation.

Admission Requirements for the Master of Social Science

To apply for admission to the Master of Social Science program, applicants must submit the following:

1. Completed Application for Admission to the Graduate School;
2. Official transcript(s),
3. A letter of recommendation that addresses the applicant's potential for success in a Master of Social Science graduate program.

Unconditional Admission

Hold a baccalaureate degree from a regionally accredited college or university with a minimum overall undergraduate grade point average of 2.5 (4.0 scale) or a 3.0 grade point average on the last 30 semester hours. All hours attempted in the terms in which the 30 semester hours were reached will be used to calculate the grade point average.

Conditional Admission

Conditional admission does not apply to this program.

Transfer Credit

A maximum of four courses (12 semester hours) taken at another regionally accredited institution each with a grade of "B" or better can be applied toward this degree. These courses must be comparable in catalog description to Troy University courses in the Social Science Graduate Program and be approved by the department chair and college dean. No transfer credit will be accepted for the three core courses (SS 6690, SS 6691, SS 6698).

Degree Requirements

1. Unconditional Admissions
2. Overall 3.0 GPA or better
3. Successful completion of the Comprehensive Exam
4. Completion of the MS in Social Science. If the student makes a "D" or "F" in a core course, the course must be retaken. If a student makes a "D" or "F" in an elective course, the course may be retaken or another elective taken in its place. Students must receive a "B" or better in SS 6691: Survey of Research Methods in Social Science, and SS 6698 Social Theory.

Curriculum

All courses offer three semester hours credit.

<i>Required Core Courses</i>	<i>9 sh</i>
<i>Concentration Content</i>	<i>18 sh</i>
<u><i>Electives</i></u>	<u><i>9 sh</i></u>
<i>Total</i>	<i>36 sh</i>

**Note: Students must successfully complete a Comprehensive Examination.*

Required Core Courses (9 sh)

SS 6690*	3	<i>Seminar in Social Sciences</i>
SS 6691*	3	<i>Survey of Research Methods in Social Science</i>
SS 6698	3	<i>Social Theory</i>

*Note: *A grade of "B" or better is required.*

**Note: Students must successfully complete a Comprehensive Examination.*

Concentration Options:

Students must choose ONE of the following concentrations: See Graduate Catalog for list of required courses and approved electives for the selected concentration.

- **Anthropology (18 sh)**
- **Criminology (18 sh)**
- **Geography (18 sh)**
- **History (18 sh)**
- **Psychology (18 sh)**
- **Sociology (18 sh)**

Political Science (18 sh)

Electives (9 sh)

Select any 9 semester hours of graduate coursework from the following disciplines:*

Anthropology, Criminology, Geography, History, Political Science, Psychology, or Sociology.

**Courses must be advisor-approved.*

2023-2024

TROY UNIVERSITY
Master of Science in Applied Mathematics
Discrete Mathematics and Modeling Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

M.S. in Applied Mathematics
 Created: 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

1. Official transcript(S)
2. Unconditional Admission
3. 33 Semester hours of credit
4. Meet residency requirements
5. No more than two grades below "B"
6. Overall GPA of 3.0
7. All credit earned within 8 years of graduation
8. Successfully complete/defend a thesis and 6 hours of thesis research or complete/pass 2 written examinations and complete research paper/project.
9. Graduation Application filed

REQUIRED CORE COURSES (9 Semester Hours)

Course No.	Title	HRS.	Grade	Term/YR.	Transfer Credit
MTH 6633	Advanced Linear Algebra	3			
MTH 6620	Advanced Concepts of Algebra	3			
MTH 6612	Advanced Discrete Mathematics	3			

Discrete Mathematics and Modeling Concentration (24 Semester Hours)

Required Courses (9 Semester Hours)

Select 3 courses from the following courses:

MTH 5520 (3) Graph Theory, MTH 6624 (3) Applied Combinatorics, MTH 6630 (3) Design Theory, MTH 6616 (3) Mathematical Models

Non-Thesis Option Required Courses: (15 Semester Hours)

MTH 6625	Specialized Study in Area of Mathematics	3			
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Select any 4 graduate (5000-6000 level) courses from the following (12 sh): Computer Science, Mathematics, and/or Statistics

Thesis Option Required Courses: (15 Semester Hours)

MTH 6692	Research and Thesis	6			
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Select any 3 graduate (5000-6000 level) courses from the following (9 sh): Computer Science, Mathematics, and/or Statistics

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Comprehensive Examination Requirements
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
Master of Science in Applied Mathematics
Statistics Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

M.S. in Applied Mathematics
 Created: 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Official transcript(S) 2. Unconditional Admission 3. 33 Semester hours of credit 4. Meet residency requirements 5. No more than two grades below "B" 6. Overall GPA of 3.0 | <ol style="list-style-type: none"> 7. All credit earned within 8 years of graduation 8. Successfully complete/defend a thesis and 6 hours of thesis research or complete/pass 2 written examinations and complete research paper/project. 9. Graduation Application filed |
|--|--|

REQUIRED CORE COURSES (9 Semester Hours)

Course No.	Title	HRS.	Grade	Term/YR.	Transfer Credit
MTH 6633	Advanced Linear Algebra	3			
MTH 6620	Advanced Concepts of Algebra	3			
MTH 6612	Advanced Discrete Mathematics	3			

Statistics Concentration (24 Semester Hours)

Required Courses (9 sh)

STAT 5551	Mathematical Statistics I	3			
STAT 5552	Mathematical Statistics II	3			
STAT 5559	Regression Analysis	3			

Non-Thesis Option Required Courses: (15 Semester Hours)

STAT 6625	Specialized Study in Area of Statistics	3			
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Select any 4 advisor - approved courses from the course listed in graduate catalog for Statistics Concentration

Thesis Option Required Courses: (15 Semester Hours)

STAT 6621	Research and Thesis	6			
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Select any 3 advisor - approved courses from the course listed in graduate catalog for Statistics Concentration

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Comprehensive Examination Requirements
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
M.S. - BIOMEDICAL SCIENCES (BMS)
 Graduate Degree Plan and Progress Record
30-31 Semester-Hour Program

TROY Publication 384-323
Updated 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

1. GRE, or equivalent exam, test scores admitted
2. Official transcript(s)
3. Unconditional Admission
4. 30-31 Semester hours of credit
5. Meet residency requirements
6. No more than two grades below "B"
7. Overall GPA of 3.0
8. Completion of BIO 6691 with a "B" or better
9. All credit earned within 8 years of graduation
10. Successfully complete comprehensive exam or thesis (Select One)
11. Graduation Application filed

CORE COURSES (19 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
BMS 6615	Medical Microbiology and Immunology	3			
BMS 6625	Medical Cell Biology	3			
BMS 6635	Medical Physiology	3			
BMS 6655	Clinical Biochemistry	3			
BMS 6665	Neuroanatomy	4			
BIO 6691	Research Methodology and Experimental Design	3			

THESIS OPTION (6 Semester Hours)

BMS 6695	Thesis	3-6			
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ELECTIVE COURSES: (6-13 Semester Hours) *See Graduate Catalog for list of approved electives.*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Comprehensive Examination Requirements

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Test Scores		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Artificial Intelligence Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-256
 Revised: 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------------|--|
| 1. GRE test score | 7. Overall GPA of 3.0 |
| 2. Official transcript(S) | 8. Completion of research requirement with a "B" or better |
| 3. Unconditional Admission | 9. All credit earned within 8 years of graduation |
| 4. 33 Semester hours of credit | 10. Successfully complete comprehensive exam or thesis |
| 5. Meet residency requirements | 11. Graduation Application filed |
| 6. No more than two grades below "B" | |

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communications and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6678	Advanced Artificial Intelligence	3			
CS 6682	Machine Learning	3			

Advisor Approved Electives: *Select 15 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

2023-2024

M.S. in Computer Science
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Thesis Option Required Courses: (12 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6678	Advanced Artificial Intelligence	3			
CS 6682	Machine Learning	3			
CS 6699	Research and Thesis	6			

Advisor Approved Electives: *Select 9 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Bioinformatics Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-256
 Revised: 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------------|--|
| 1. GRE test score | 7. Overall GPA of 3.0 |
| 2. Official transcript(S) | 8. Completion of research requirement with a "B" or better |
| 3. Unconditional Admission | 9. All credit earned within 8 years of graduation |
| 4. 33 Semester hours of credit | 10. Successfully complete comprehensive exam or thesis |
| 5. Meet residency requirements | 11. Graduation Application filed |
| 6. No more than two grades below "B" | |

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communications and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6630	Introduction to Bioinformatics	3			
CS 6682	Machine Learning	3			

Advisor Approved Electives: *Select 15 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

2023-2024

M.S. in Computer Science
 TROY Publication 384-256
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Thesis Option Required Courses: (15 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6630	Introduction to Bioinformatics	3			
CS 6682	Machine Learning	3			
CS 6699	Research and Thesis	6			

Advisor Approved Electives: *Select 9 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Cloud and Big Data Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-256
 Created 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------------|--|
| 1. GRE test score | 7. Overall GPA of 3.0 |
| 2. Official transcript(S) | 8. Completion of research requirement with a "B" or better |
| 3. Unconditional Admission | 9. All credit earned within 8 years of graduation |
| 4. 33 Semester hours of credit | 10. Successfully complete comprehensive exam or thesis |
| 5. Meet residency requirements | 11. Graduation Application filed |
| 6. No more than two grades below "B" | |

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communication and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6634	Cloud Computing	3			
CS 6661	Big Data Algorithms and Systems	3			

Advisor Approved Electives: *Select 15 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

2023-2024

M.S. in Computer Science
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Thesis Option Required Courses: (15 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6634	Cloud Computing	3			
CS 6661	Big Data Algorithms and Systems	3			
CS 6699	Research and Thesis	6			

Advisor Approved Electives: *Select 9 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Computer Network and Security Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-255
 Revised: 1/2023
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Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

1. GRE test score
2. Official transcript(S)
3. Unconditional Admission
4. 33 Semester hours of credit
5. Meet residency requirements
6. No more than two grades below "B"
7. Overall GPA of 3.0
8. Completion of research requirement with a "B" or better
9. All credit earned within 8 years of graduation
10. Successfully complete comprehensive exam or thesis
11. Graduation Application filed

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communications and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6674	Network and Information Security	3			
CS 6676	Advanced Computer Network	3			

Advisor Approved Electives: *Select 15 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

2023-2024

M.S. in Computer Science
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Thesis Option Required Courses: (15 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6674	Network and Information Security	3			
CS 6676	Advanced Computer Network	3			
CS 6699	Research and Thesis	6			

Advisor Approved Electives: *Select 9 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Cyber Security Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-256
 Revised: 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------------|--|
| 1. GRE test score | 7. Overall GPA of 3.0 |
| 2. Official transcript(S) | 8. Completion of research requirement with a "B" or better |
| 3. Unconditional Admission | 9. All credit earned within 8 years of graduation |
| 4. 33 Semester hours of credit | 10. Successfully complete comprehensive exam or thesis |
| 5. Meet residency requirements | 11. Graduation Application filed |
| 6. No more than two grades below "B" | |

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communications and Networkings	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Algorithms	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (12 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6622	Introduction to Cybersecurity	3			
CS 6625	Specialized Study in Computer Science	3			
CS 6674	Network and Information Security	3			
CS 6679	Advanced Penetration Testing and Network Defense	3			

Advisor Approved Electives: *Select 12 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

2023-2024

M.S. in Computer Science
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Thesis Option Required Courses: (18 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6622	Introduction to Cybersecurity	3			
CS 6625	Specialized Study in Computer Science	3			
CS 6674	Network and Information Security	6			
CS 6679	Advanced Penetration Testing and Network Defense	3			
CS 6699	Research and Thesis	3			

Advisor Approved Electives: *Select 6 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Data Science Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

M.S. in Computer Science
 Created: 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

1. GRE test score
2. Official transcript(S)
3. Unconditional Admission
4. 33 Semester hours of credit
5. Meet residency requirements
6. No more than two grades below "B"
7. Overall GPA of 3.0
8. Completion of research requirement with a "B" or better
9. All credit earned within 8 years of graduation
10. Successfully complete comprehensive exam or thesis
11. Graduation Application filed

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communications and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (12 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6632	Computer Vision	3			
CS 6636	Data Visualization and Exploration	3			
CS 6682	Machine Learning	3			

ADVISOR APPROVED ELECTIVES: *Select 12 hours of advisor-approved Computer Science graduate courses*

2023-2024

M.S. in Computer Science
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Thesis Option Required Courses: (18 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6632	Computer Vision	3			
CS 6636	Data Visualization and Exploration	3			
CS 6682	Machine Learning	3			
CS 6699	Research and Thesis	6			

ADVISOR APPROVED ELECTIVES: *Select 6 hours of advisor-approved Computer Science graduate courses*

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Software Development Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-257
 Revised: 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

1. GRE test score
2. Official transcript
3. Unconditional Admission
4. 33 Semester hours of credit
5. Meet residency requirements
6. No more than two grades below "B"
7. Overall GPA of 3.0
8. Completion of research requirement with a "B" or better
9. All credit earned within 8 years of graduation
10. Successfully complete comprehensive exam or thesis
11. Graduation Application filed

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communications and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6640	Advanced Database Concepts	3			
CS 6680	Advanced Software Engineering	3			

Advisor Approved Electives: *Select 15 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

2023-2024

M.S. in Computer Science
 TROY Publication 384-257
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Thesis Option Required Courses: (15 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6640	Advanced Database Concepts	3			
CS 6680	Advanced Software Engineering	3			
CS 6699	Research and Thesis	6			

Advisor Approved Electives: *Select 9 hours of advisor-approved Computer Science graduate courses*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN COMPUTER SCIENCE
Video Game Design Concentration
 Graduate Degree Plan and Progress Record
33 Semester-Hour Program

TROY Publication 384-256
 Revised: 1/2023
 Page 1 of 2

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------------|--|
| 1. GRE test score | 7. Overall GPA of 3.0 |
| 2. Official transcript(S) | 8. Completion of research requirement with a "B" or better |
| 3. Unconditional Admission | 9. All credit earned within 8 years of graduation |
| 4. 33 Semester hours of credit | 10. Successfully complete comprehensive exam or thesis |
| 5. Meet residency requirements | 11. Graduation Application filed |
| 6. No more than two grades below "B" | |

PREREQUISITE COURSES *Required for students with Bachelor's Degree outside the field of Computer Science*

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
MTH 2215	Applied Discrete Mathematics	3			
CS 2250	Computer Science I	3			
CS 2255 or CS 3360	CS II or Concepts of Object Oriented Programming I	3			
CS 3310	Foundations of Computer Science	3			
CS 3323	Data Structures	3			
CS 4445	Data Communication and Networking	3			

Note: To remain eligible for Federal Financial Aid, all undergraduate courses MUST be completed before students enroll in any graduate courses. Students on Federal Financial Aid may NOT enroll in undergraduate courses after they have begun graduate coursework.

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 5545	Computer Architecture	3			
CS 5549	Analysis of Algorithms	3			
CS 5550	Operating System Principles	3			

Non-Thesis Option Required Courses: (12 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6666	Computer Graphics	3			
CS 6678	Advanced Artificial Intelligence	3			
CS 6681	Video Game Design and Development	3			

Advisor Approved Electives: *Select 12 hours of advisor-approved Computer Science graduate courses*

2023-2024

M.S. in Computer Science
 TROY Publication 384-256
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Thesis Option Required Courses: (18 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CS 6625	Specialized Study in Computer Science	3			
CS 6666	Computer Graphics	3			
CS 6678	Advanced Artificial Intelligence	3			
CS 6681	Video Game Design and Development	3			
CS 6699	Research and Thesis	6			

Advisor Approved Electives: *Select 6 hours of advisor-approved Computer Science graduate courses*

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Thesis and non-thesis options
- 10. Other

Progress:

STATUS	DATE	INITIALS
Conditional		
Test Scores		
Requirement for minimum undergraduate GPA waived		
Requirement for minimum score of GRE waived		
Unconditional		
Residency		
Comps		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN CRIMINAL JUSTICE
 Graduate Degree Plan and Progress Record
30 Semester-Hour Program

TROY Publication 384-258
 Revised 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Official transcript(s) 2. Unconditional Admission 3. 30/36 Semester hours of credit 4. Meet residency requirements 5. No more than two grades below "B" | <ol style="list-style-type: none"> 6. Completion of research requirement with a "B" or better 7. All credit earned within 8 years of graduation 8. Successfully complete comprehensive exam or thesis 9. Graduation Application filed |
|--|---|

REQUIRED CORE COURSES (15 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
CJ 6620	Current Trends in Criminal Law and Procedure	3			
CJ 6622	Seminar in Administration of Justice	3			
CJ 6650	Survey of Research Methods in Criminal Justice	3			
CRM 6636	Criminological Theory	3			

CONCENTRATION: (12 Semester Hours)

- Criminal Justice , General Concentration Security Studies Concentration

See Graduate Catalog for list of required courses and approved electives for the selected concentration.

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ELECTIVES: (6 Semester Hours)

See Graduate Catalog for list of approved electives

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Comprehensive Examination Requirements

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Test Scores		

2023-2024

TROY UNIVERSITY
M.S. - ENVIRONMENTAL AND BIOLOGICAL SCIENCES (EBS)
 Graduate Degree Plan and Progress Record
30/36 Semester-Hour Program

TROY Publication 384-324
 Revised: 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- 1. GRE, or equivalent exam, test scores admitted
- 2. Official transcript(s)
- 3. Unconditional Admission
- 4. 30-36 Semester hours of credit
- 5. Meet residency requirements
- 6. No more than two grades below "B"
- 7. Overall GPA of 3.0
- 8. Completion of EBS/BIO 6691 with a "B" or better
- 9. All credit earned within 8 years of graduation
- 10. Successfully complete comprehensive exam or thesis
- 11. Graduation Application filed

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
BIO 6601	Environmental and Biological Ethics	3			
BIO 6624	Public Health	3			
BIO 6691	Research Methodology and Experimental Design	3			

ELECTIVES: (6-27 Semester Hours)

See Graduate Catalog for list of required courses and approved electives for the selected concentration.

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

THESIS OPTION*: Complete 30 sh of selected concentration courses and electives plus thesis courses. * Not available to eTROY students.

BIO 6695	Thesis Research	3			
BIO 6695	Thesis Research	3			

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Comprehensive Examination Requirements

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Test Scores		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN INTERNATIONAL RELATIONS
 Graduate Degree Plan and Progress Record
36 Semester-Hour Program

TROY Publication 384-325
 Revised 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. GRE, or equivalent exam, test scores admitted 2. Official transcript(s) 3. Unconditional Admission 4. 36 Semester hours of credit 5. Meet residency requirements 6. No more than two grades below "B" | <ol style="list-style-type: none"> 7. Overall GPA of 3.0 8. Completion of research requirement with a "B" or better 9. All credit earned within 8 years of graduation 10. Successfully complete capstone course or thesis 11. Graduation Application filed |
|---|---|

REQUIRED CORE COURSES (12-15 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
IR 6601	Research Methods in International Relations	3			
IR 6603	Introduction to International Relations	3			
IR 6620	International Political Economy	3			
IR 6652	Theory & Ideology in International Relations	3			
IR 6690	Capstone	3			

CONCENTRATION COURSES: (18-21 Semester Hours) Global Studies National Security Affairs Regional Affairs
See Graduate Catalog for list of required courses and approved electives for the selected concentration.

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

THESIS OPTION*: Complete 18 sh of selected concentration courses plus thesis courses. Must register for Thesis courses as the last two courses in the program.
 * Not available to eTROY students.

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
IR 6668	Thesis	3			
IR 6669	Thesis	3			

ITEMS TO BE DISCUSSED:

- 1. One term limit to have transcript(s) and test scores on file
- 2. Temporary, Conditional, and Unconditional Admission
- 3. Availability of faculty for academic advising
- 4. Petition for transfer credit once unconditionally admitted
- 5. Class attendance
- 6. Drop and Withdrawal procedures; deadlines and consequences
- 7. Petition for an incomplete grade
- 8. Student participation in course and program evaluation
- 9. Comprehensive Examination Requirements

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Test Scores		

2023-2024

TROY UNIVERSITY
MASTER OF PUBLIC ADMINISTRATION
 Graduate Degree Plan and Progress Record
36 Semester-Hour Program

TROY Publication 384-262
 Revised 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Admission to MPA program 2. Official transcript(s) 3. Unconditional Admission 4. 36 Semester hours of coursework credit 5. Meet residency requirements 6. No more than two grades below "B" | <ol style="list-style-type: none"> 7. Internship required or waived 8. Overall GPA of 3.0 9. Completion of research requirement (PA 6601) with a "B" or better 10. All credit earned within 8 years of graduation 11. Completion of capstone (PA 6699) with a grade of "B" or better 12. Graduation Application filed |
|---|---|

REQUIRED CORE COURSES (24 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
PA 6601	Research Methods in Public Administration*	3			
PA 6610	Global Challenges in Public Administration*	3			
PA 6622	Public Policy**	3			
PA 6624	Public Human Resource Management	3			
PA 6650	Governmental Budgeting and Financial Management	3			
PA 6665	Organizational Leadership				
PA 6674	Ethics in Public Administration	3			
PA 6699	Capstone in Public Administration (<i>Final course of program</i>)***	3			

* Must be completed within the first 12 hours of course work
 ** Should not be taken until after completing PA6601 and PA6610
 *** Should be the final core course

ELECTIVES (9-12 Semester Hours)****

COURSE NO.	TITLE	HRS.	GRADE	TERM/YR	TRANSFER CREDIT
		3			
		3			
		3			
PA 6694	Internship or	3			

****An internship is required of all students unless granted a waiver. Students granted a waiver would need to take an additional elective to meet the 36 hour graduation requirement, increasing the required elective hours from 9 to 12

ITEMS TO BE DISCUSSED:

- Conditional or Unconditional Admission
- Availability of faculty for academic advising
- Petition for transfer credit once unconditionally admitted
- Class attendance
- Drop and Withdrawal procedures; deadlines and consequences
- Petition for an incomplete grade
- Student participation in course and program evaluation
- Curriculum coursework sequencing

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Test Scores		

2023-2024

TROY UNIVERSITY
MASTER OF SCIENCE IN SOCIAL SCIENCE
 Graduate Degree Plan and Progress Record
36 Semester-Hour Program

TROY Publication 384-262
 Revised 1/2023

Name: Student ID#: Campus:
 Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------------|--|
| 1. Official transcript(s) | 6. Overall GPA of 3.0 |
| 2. Unconditional Admission | 7. Completion of research requirement with a "B" or better |
| 3. 30/36 Semester hours of credit | 8. All credit earned within 8 years of graduation |
| 4. Meet residency requirements | 9. Successfully complete comprehensive exam |
| 5. No more than two grades below "B" | 10. Graduation Application filed |

REQUIRED CORE COURSES (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT
SS 6690	Seminar in Social Science	3			
SS 6691	Survey of Research Methods in the Social Sciences	3			
SS 6698	Social Theory	3			

CONCENTRATION: (18 Semester Hours)

See Graduate Catalog for list of required courses and approved electives for the selected concentration.

- Anthropology
 History
 Geography
 Political Science
 Psychology
 Sociology
 Criminology

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

Electives (9 Semester Hours)

COURSE NO.	TITLE	HRS.	GRADE	TERM / YR	TRANSFER CREDIT

ITEMS TO BE DISCUSSED:

- Conditional or Unconditional Admission
- Availability of faculty for academic advising
- Petition for transfer credit once unconditionally admitted
- Class attendance
- Drop and Withdrawal procedures; deadlines and consequences
- Petition for an incomplete grade
- Student participation in course and program evaluation
- Curriculum coursework sequencing

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Test Scores		

2023-2024

TROY Publication 384-266
Revised 1/2023

TROY UNIVERSITY
GRADUATE CERTIFICATE IN PUBLIC HEALTH ADMINISTRATION
Certificate Plan and Progress Record
Certificate Verification
18 Semester-Hours

Name: Student ID#: Campus:
Address: Email:

DEGREE REQUIREMENTS:

- | | |
|--------------------------------|---|
| 1. Admitted to the MPA program | 5. Meet residency requirements |
| 2. Official transcript(s) | 6. No more than two grades below "B" |
| 3. Unconditional Admission | 7. Overall GPA of 3.0 |
| 4. 18 Semester hours of credit | 8. All credit earned within 8 years of graduation |

Select 6 courses from the following: (18 Semester Hours)

COURSE NO.	TITLE	HRS	GRADE	TERM/YR	TRANSFER CREDIT
PA 6641	Social Marketing in Public Administration	3			
PA 6663	Global Health Administration	3			
PA 6665	Organizational Leadership	3			
PA 6675	Public Health Services Administration and Policy	3			
PA 6676	Legal and Social Issues in Public Health Administration	3			
PA 6677	Public Health Preparedness and Emergency Response	3			
PA 6678	Introduction to Public Health	3			

ITEMS TO BE DISCUSSED:

- Conditional or Unconditional Admission
- Availability of faculty for academic advising
- Petition for transfer credit once unconditionally admitted (3 SH maximum)
- Class attendance
- Drop and Withdrawal procedures; deadlines and consequences
- Petition for an incomplete grade
- Student participation in course and program evaluation

ADMISSION STATUS:

TYPE	DATE	INITIALS
Conditional		
Unconditional		
Residency		
Test Scores		