

MEMORANDUM

To: Dr. Martha Venn, Provost and Vice President for Academic Affairs

From: Dr. Alex Koohang, Chair, School of Information Technology

Date: October 10, 2012

Re: Approval of Curriculum for the School of Information Technology for Middle Georgia State College



It is recommended by the School of Information Technology that the attached curriculum be approved by the Academic Affairs Committee and included in the Middle Georgia State College 2013-2014 catalog. The following academic programs are included in this document:

Program	Status of Program for MSC
Computer Science, AS	Unchanged New Program – No Review Necessary
Information Technology, BS	Unchanged Program – No Review Necessary
Information Technology, BS (fully online)	Unchanged Program – No Review Necessary

The Curriculum Work Team members in each program area were as follows:

Computer Science: Edward Hufft (MGC); Pedro Colon (MGC); Alex Koohang (MSC)

Information Technology: Alex Koohang (MSC); Terry Smith (MSC)

Information Technology (fully online): Alex Koohang (MSC); Terry Smith (MSC)

School of Information Technology

Acceptance into the Information Technology Program

Beginning Fall 2012, students are required to have a minimum 2.0 GPA to be admitted to the program. In addition, students must not have College Preparatory Curriculum (CPC) or Learning Support (LS) holds to be admitted to the Bachelor of Science in Information Technology beginning in Fall 2012.

Information Technology Program Educational Objectives

The IT program provides students with knowledge in the core information technologies and builds on that knowledge to create professionals who meet the business and economic needs of Central Georgia. The program is designed to produce graduates with a diversified set of skills, roles, and experiences including knowledge in Network/network administration, information assurance, media design, and application development. These knowledge areas will prepare our graduates for careers in a range of organizations, from small to large.

The core knowledge in the program includes programming, application development, Web design, systems analysis and design, human computer interaction, interactive digital media, database principles, Web programming, project management, IT organizational integration, legal and ethical issues in information technology, and foundations of information assurance. Senior capstone is the last core course students take in the program. In this course students (normally in teams of three to five members) will analyze, design, develop, implement, and assess an information system based on their accumulated knowledge throughout the IT program.

It is appropriate to refer to IT graduates as "versatilists." A career in information technology requires a person with the ability to react expeditiously to the dynamic nature of technology. A versatilist can synthesize knowledge and context in order to respond rapidly to forces, changes, and opportunities.

The courses in the program also emphasize critical thinking, problem solving, decision-making, and interpersonal and communication skills. Career success through lifelong learning and professional development is emphasized at all levels of the curriculum.

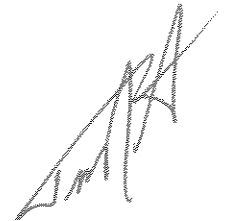
It is therefore anticipated that, a few years after graduation, our graduates will

1. Assume productive roles in IT-related positions, such as network administrator, software developer, web master, systems analyst, information security officer, multimedia designer, and database administrator;
2. Pursue life-long learning enabling them to adapt and grow as organizational responsibilities change

Information Technology Program Outcome

Upon completion of the baccalaureate program in IT, students should be able to:

- Use and apply current technical concepts, skills, practices, and tools in the core information technologies of human computer interaction, information management, programming, and web systems;
- Analyze, identify, and define information system requirements in local and global environments;
- Design, implement and administer effective IT solutions based on user needs;
- Use appropriate project management methods in the creation of an effective IT project plan;
- Describe and apply best practices and standards in IT applications;
- Identify IT methods used in protecting the confidentiality, integrity, and availability of information and its delivery systems;
- Identify and apply relevant ethical, legal, security, and social issues in a technology environment;
- Work effectively in teams to develop IT based solutions;
- Communicate effectively both orally and in writing; and
- Recognize the need for lifelong professional development and learning.



Information Technology (B.S.)

The mission of the School of Information Technology is to educate students in information technology in ways that lead to fulfilling careers and enhance the economic vitality of Central Georgia. The School prepares its graduates to solve problems and apply new technologies within an increasingly interconnected and changing global environment. The School pursues this mission as an educational leader in teaching excellence, scholarship, professional service, and community outreach.

The early part of the IT program provides students with knowledge in the core information technologies. Students can then focus on one or more concentrations to enhance their set of skills and knowledge. The courses in the program emphasize critical thinking, problem solving, decision-making, and interpersonal and communication skills. Career success through lifelong learning and professional development is stressed at all levels of the curriculum.

The IT program is designed to produce graduates with a diversified set of skills, roles, and experiences. It is appropriate to refer to graduates as "versatilists." A career in information technology requires a person with the ability to react expeditiously to the dynamic nature of technology. A versatilist can synthesize knowledge and context in order to respond rapidly to forces, changes, and opportunities.

Candidates for the baccalaureate degree in IT must complete all graduation requirements as outlined in the Middle Georgia State College *Academic Catalog*. A grade of at least a "C" is required in all ITEC courses used to meet the School of Information Technology's degree requirements. Students pursuing the bachelor of science degree in Information Technology must complete the following:

Curriculum for Bachelor of Science in Information Technology

Area A Credit: 9 Hours

Essential Skills

- ENGL 1101 - English Composition I **Credit:** 3 hours
- ENGL 1102 - English Composition II OR ENGL 1102H - Honors English Composition II **Credit:** 3 hours
- Area A Math Elective. **Credit:** 3 or 4 hours. Choose one of the following:
 - MATH 1111 - College Algebra
 - MATH 1113 - Precalculus
 - MATH 1113H - Honors Precalculus
 - MATH 1251 - Calculus I

*Note: Courses required for Area A must be completed within the first 30 hours.

Area B Credit: 4 Hours

Institutional Options

- To be determined at a later date.

Area C Credit: 6 Hours

Humanities/Fine Arts

- Literature Elective **Credit:** 3 Hours
- COMM 1110 - Public Speaking **Credit:** 3 hours

Area D Credit: 11 Hours

Science, Math, and Technology

- Lab Science Elective **Credit: 4 hours**
- Lab Science Elective **Credit: 4 hours**
- Area D Elective **Credit: 3 hours**
Choose from MATH 1200, 1251, 2252, 2253, 2260 and 2270.

Area E Credit: 12 Hours

Social Sciences

- HIST 2111 - United States History to 1865 **Credit: 3 hours**
or
- HIST 2112 - United States History since 1865 **Credit: 3 hours**
- POLS 1101 - American Government **Credit: 3 hours**
- Area E Elective **Credit: 3 hours**
Choose from the following:
HIST 1111 - History of World Civilizations to 1650 **Credit: 3 hours**
HIST 1112 - History of World Civilizations Since 1650 **Credit: 3 hours**
POLS 2301 - Introduction to Comparative Politics **Credit: 3 hours**
POLS 2401 - Introduction to Global Issues **Credit: 3 hours**
- Area E Elective **Credit: 3 hours**

Area F Credit: 18 Hours

Major Field

- ITEC 2215 - Introduction to Information Technology **Credit: 3 hours**
School of Information Technology will accept a passing grade of 50 from the CLEP Exam "Information Systems and Computer Applications" as credit for ITEC 2215 - Introduction to Information Technology.
- ITEC 2260 - Intro to Computer Programming **Credit: 3 hours**
- ITEC 2270 - Application Development **Credit: 3 hours**
- ITEC 2320 - Networking Essentials **Credit: 3 hours**
- ITEC 2380 - Web Development **Credit: 3 hours**
- MATH 1220 - Discrete Mathematics **Credit: 3 hours**

Information Technology Core Curriculum Credit: 30 Hours

- ITEC 3155 - Systems Analysis and Design **Credit: 3 hours**
- ITEC 3235 - Human Computer Interaction **Credit: 3 hours**
- ITEC 3236 - Interactive Digital Media **Credit: 3 hours**
- ITEC 3245 - Database Principles **Credit: 3 hours**
- ITEC 3280 - Web Programming **Credit: 3 hours**
- ITEC 3300 - Project Management **Credit: 3 hours**
- ITEC 3310 - Information Technology and Organizational Integration **Credit: 3 hours**
- ITEC 4205 - Legal and Ethical Issues in Information Technology **Credit: 3 hours**
- ITEC 4200 - Foundations of Information Assurance **Credit: 3 hours**
- ITEC 4750 - Senior Capstone **Credit: 3 hours**

Upper-Level Electives Credit: 30 hours

Students are required to take 30 hours of upper-level courses to further enhance their skills, knowledge, and versatility. **At least 15 hours must be IT courses.**

Students may choose to satisfy the 30 hours of upper-level electives in one of the following four ways:

1. **An IT concentration plus an additional 15 hours of upper-level courses within IT discipline and/or outside the IT discipline**
2. **Two IT concentrations**
3. **An Informatics concentration and either an IT concentration or 15 hours of upper-level IT courses**
4. **Fifteen hours of upper-level IT courses and an additional 15 hours of upper-level courses within IT discipline and/or outside the IT discipline**

The upper-level IT courses may be chosen from various IT concentrations and/or upper-level IT courses outside major concentrations.

Upper-level courses outside the IT discipline may be chosen from various Informatics concentrations and/or other approved upper-level courses outside the IT discipline.

If a student completes one or two concentrations, the concentration name(s) will show on his or her transcript.

Area II - IT Concentrations

The IT Concentrations are Network Technologies & Administration, Information Assurance and Security, Integrated Digital Media, Software Development, and Gaming Design and Development. In order for a student to receive an IT Concentration, he/she must take 15 hours of coursework within a concentration.

Network Technologies & Administration

The **Network Technologies & Administration** concentration educates students in the use of current concepts and technologies of networking. Students will learn to analyze the needs of organizations, communicate the needs to the users, and then design and build networks to meet those needs. Graduates will be prepared for positions in networking or systems administration. Students should choose five courses from the following list:

- ITEC 3325 - Windows System Administration **Credit: 3 hours**
- ITEC 3328 - Linux Systems Administration **Credit: 3 hours**
- ITEC 4242 - Database Administration **Credit: 3 hours**
- ITEC 4285 - Web Server Administration **Credit: 3 hours**
- ITEC 4321 - Forensics/Data Recovery **Credit: 3 hours**
- ITEC 4324 - Wireless Technologies **Credit: 3 hours**
- ITEC 4329 - Data Communications **Credit: 3 hours**
- ITEC 4421 - Network Security **Credit: 3 hours**

And other courses in this area as approved by the Dean.

Information Assurance and Security

The **Information Assurance and Security** concentration involves detecting, reporting, and responding to cyber threats, making encryption codes to securely pass information between systems, and taking appropriate measures to ensure the security of valuable information. Students will learn about digital evidence, computer crime and law, and server and network security important to law enforcement, forensic science, and information systems security. Students should choose five courses from the following list:

- ITEC 4285 - Web Server Administration **Credit: 3 hours**
- ITEC 4321 - Forensics/Data Recovery **Credit: 3 hours**
- ITEC 4341 - Incident Response and Contingency Planning **Credit: 3 hours**
- ITEC 4361 - Software and Database Security **Credit: 3 hours**
- ITEC 4421 - Network Security **Credit: 3 hours**

And other courses in this area as approved by the Dean.

Integrated Digital Media

The **Integrated Digital Media** concentration prepares students in the design and development of products for use in a variety of IT applications. Through the various courses, students will develop competencies in evaluating user and product needs and in designing, developing, and implementing digital media products to meet those needs. Students learn a broad range of skills including graphic design and production, interface design, and analysis and design techniques for constructing interactive applications. Graduates will find career opportunities as digital media designers and developers, specialists, and trainers. Students should choose five courses from the following list:

Required:

- ITEC 4230 - Graphic Imaging **Credit: 3 hours**
- ITEC 4238 - 2D Computer Animation **Credit: 3 hours**
- ITEC 4284 - Web Multimedia Delivery **Credit: 3 hours**

Choose 2 of the following:

- NMAC 3600 - Digital Storytelling **Credit: 3 hours**
- NMAC 3108 - Writing for Digital Media **Credit: 3 hours**
- ITEC 4231 - Designing Content for Instructional Applications **Credit: 3 hours**
- ITEC 4250 - Introduction to Artificial Intelligence for Gaming **Credit: 3 hours**

And other courses in this area as approved by the Dean.

Software Development

The **Software Development** concentration prepares students for the design, development, and implementation of software solutions. Graduates will be prepared for a variety of careers including software developers or systems, application, or database programmers.

Required course:

- ITEC 3264 - Data Structures **Credit: 3 hours**

Choose four courses from the following list:

- ITEC 4244 - Database Programming **Credit: 3 hours**
- ITEC 4248 - Web Development Environments **Credit: 3 hours**
- ITEC 4266 - C/C++ Programming **Credit: 3 hours**
- ITEC 4269 - Visual Basic for Client/Server Systems **Credit: 3 hours**
- ITEC 4286 - Web Applications Development **Credit: 3 hours**
- ITEC 4361 - Software and Database Security **Credit: 3 hours**

And other courses in this area as approved by the Dean.

Gaming Design and Development

The **Gaming Design and Development** concentration provides students with an understanding of the theory, design and programming techniques required for developing interactive games. This concentration will equip students with the theoretical and practical knowledge for careers in the games and simulation industries. Students will take the following courses:

- ITEC 3264 - Data Structures **Credit: 3 hours**
- ITEC 4230 - Graphic Imaging **Credit: 3 hours**
- ITEC 4238 - 2D Computer Animation **Credit: 3 hours**
- ITEC 4250 - Introduction to Artificial Intelligence for Gaming **Credit: 3 hours**
- ITEC 4255 - Game Design and Development **Credit: 3 hours**

And other courses in this area as approved by the Dean.

Area III – IT Electives (15 hours)

Students may choose to satisfy the 15 hours of upper-level electives in one of the following ways:

1. An additional IT concentration or Concentration in Health Informatics.
2. 15 hours of upper-level Information Technology courses within the IT concentrations and/or upper-level IT electives.
3. Transfer students with an associate's or bachelor's degree that satisfy the College's general education course requirements and who have not taken ITEC 2215, ITEC 2260, ITEC 2270, ITEC 2320, and ITEC 2380 (within the Area F) are required to take these courses and may use them as partial-credit toward IT electives in AREA III.

Upper-Level IT Courses Outside Concentrations

- ITEC 3220 - Hardware and Systems Software **Credit: 3 hours**
- ITEC 3265 - Operating Systems **Credit: 3 hours**
- ITEC 3340 - Business Analysis Using Excel **Credit: 3 hours**
- ITEC 3351 - Decision Support and Organizational Intelligence **Credit: 3 hours**
- ITEC 4254 - Business Driven Technologies **Credit: 3 hours**
- ITEC 4288 - Electronic Commerce Systems **Credit: 3 hours**
- ITEC 4501 - Special Projects in Information Technology **Credit: 3 hours**
- ITEC 4701 - Internship in Information Technology **Credit: 3 - 6 hours**
- ITEC 4710 - Globalization & Technology **Credit: 3 hours**
- ITEC 4299 - Topics in Information Technology **Credit: 3 hours**

Informatics Concentrations

Informatics is the bridge that connects Information Technology to other areas of study. An Informatics Concentration provides students with a strong foundation in IT as well as a deeper understanding of another discipline. Informatics Concentrations allow students to more rapidly develop IT solutions for organizations within diverse disciplines. The Informatics Concentrations are Biology, English, Health, History, Humanities, and Mathematics.

Each Informatics Concentration has two components:

1. Fifteen hours of courses (Informatics: Biology includes 16 hours of courses) as prescribed in the specific Informatics Concentration.
2. Fifteen hours of upper-level IT courses (The upper-level IT courses may be an IT major concentration or chosen from various IT concentrations and/or upper-level IT courses outside major concentrations).

If the student takes all the upper-level IT courses within an IT Concentration, the student would then have two concentrations on his/her transcript (one Informatics Concentration and one IT Concentration). All courses in the Informatics Concentration are taken outside the School of Information Technology. These courses are deemed to cover the foundations, theory, and principles within each concentration. Some concentrations lead to recognized disciplines for graduate study.

Informatics: Biology

Required Courses Credit: 12 Hours

- BIOL 3104K - Cell Biology **Credit: 4 hours**
- BIOL 3510K - Invertebrate Zoology **Credit: 4 hours**
- BIOL 4110K - Genetics **Credit: 4 hours**

Required Electives Credit: 4 Hours

Select one course from the following

- BIOL 3350K - Ecology **Credit: 4 hours**
- BIOL 3360K - Plant Biology **Credit: 4 hours**
- BIOL 3520K - Vertebrate Zoology **Credit: 4 hours**
- BIOL 3540K - Microbiology **Credit: 4 hours**

Students interested in the Informatics: Biology must take the following prerequisite courses: CHEM 1211K, BIOL 2107K, and BIOL 2108K. (All or some of these courses are normally taken in the core at MSC. They may also be approved transferred courses from other institutions.) NOTE: This informatics concentration is not a bioinformatics program.

Informatics: English

Required Courses Credit: 15 Hours

Select five courses from the following

- ENGL 3106 - Professional Communication **Credit: 3 hours**
- NMAC 3108 - Writing for Digital Media **Credit: 3 hours**
- NMAC 4450 - Visual Rhetoric: Principles of Production **Credit: 3 hours**
- NMAC 4451 - Advanced Video Production: Broadcast Forms **Credit: 3 hours**
- HUMN 4480 - History of Print **Credit: 3 hours**
- NMAC 4481 - Film Analysis **Credit: 3 hours**

Students interested in the Informatics: English must take the following prerequisite courses: ENGL 1102 and BUSA 2201. (ENGL 1102 is normally taken in the core at Middle Georgia State College. BUSA 2201 is offered through the School of Business. Both courses may also be approved transferred courses from other institutions.)

Informatics: Health (Online Only)

Required Courses Credit: 12 Hours

- HLSA 3310 - American Health Care System **Credit: 3 hours**
- HLSA 3320 - Health Care Management **Credit: 3 hours**
- HIMA 4120 - Health Informatics I **Credit: 3 hours**
- HIMA 4121 - Health Informatics II **Credit: 3 hours**

Required Electives Credit: 3 Hours

Select one course from the following

- HLSA 3350 - Public Health and Epidemiology **Credit: 3 hours**
- HLSA 3360 - Quality Management and Improvement **Credit: 3 hours**
- HLSA 4435 - Managed Care **Credit: 3 hours**

Informatics: History

Required Courses Credit: 15 Hours

Option 1 - American History

Select five courses from the following

- HIST 3710 - Colonial America **Credit: 3 hours**
- HIST 3730 - America, 1815-1848 **Credit: 3 hours**
- HIST 3750 - The Civil War and Reconstruction **Credit: 3 hours**
- HIST 3760 - United States History 1877-1917 **Credit: 3 hours**
- HIST 3770 - United States History 1917-1960 **Credit: 3 hours**
- HIST 3790 - United States History Since 1960 **Credit: 3 hours**
- HIST 3930 - History of Georgia **Credit: 3 hours**
- HIST 4700 - Multicultural America **Credit: 3 hours**
- HIST 4710 - Religion and Politics in American History **Credit: 3 hours**

Students interested in the Informatics: American History must take the following prerequisite courses: HIST 2111 and HIST 2112. (These courses are normally taken in the core at Middle Georgia State College. They may also be approved transferred courses from other institutions.)

Option 2 - World History

Select five courses from the following

- HIST 3050 - The Ancient Mediterranean **Credit: 3 hours**
- HIST 3100 - History of Latin America **Credit: 3 hours**
- HIST 3150 - History of Africa to 1875 **Credit: 3 hours**
- HIST 3200 - Traditional China **Credit: 3 hours**
- HIST 3210 - Modern China **Credit: 3 hours**
- HIST 3230 - History of the Middle East **Credit: 3 hours**
- HIST 3440 - Europe in the Middle Ages **Credit: 3 hours**
- HIST 3460 - The Renaissance and Reformation **Credit: 3 hours**
- HIST 3480 - Europe in the Nineteenth Century **Credit: 3 hours**
- HIST 3490 - Europe in the Twentieth Century **Credit: 3 hours**
- HIST 4220 - History of Japan **Credit: 3 hours**
- HIST 4290 - Modern Russia **Credit: 3 hours**
- HIST 4308 - Seventeenth Century Britain **Credit: 3 hours**
- HIST 4320 - France 1660-1815 **Credit: 3 hours**
- HIST 4330 - Modern Germany **Credit: 3 hours**
- HIST 4336 - The Holocaust **Credit: 3 hours**
- HIST 4360 - Modern East Central Europe **Credit: 3 hours**

Students interested in the Informatics: World History must take the following prerequisite courses: HIST 1111 and HIST 1112. (These courses are normally taken in the core at Middle Georgia State College. They may also be approved transferred courses from other institutions.)

Informatics: Humanities

Required Courses Credit: 15 Hours

- NMAC 3145 - Digital Media Studio **Credit: 3 hours**
- HUMN 3153 (BUSA 3153) - Organizations, Work, and Literature **Credit: 3 hours**
- NMAC 3600 - Digital Storytelling **Credit: 3 hours**
- HUMN 3999 - Special Topics **Credit: 3 hours**
- HUMN 4472 - Studies in Culture **Credit: 3 hours**

Students interested in the Informatics: Humanities must take the following prerequisite course: ENGL 1102. (ENGL 1102 is normally taken in the core at Middle Georgia State College. This course may also be an approved transferred course from other institutions.)

Informatics: Mathematics

Required Courses Credit: 6 Hours

- MATH 3040 - Bridge to Higher Mathematics **Credit: 3 hours**
- MATH 3600 - Probability and Statistics **Credit: 3 hours**

Electives Credit: 9 Hours

Select three courses from the following

- MATH 3010 - History of Mathematics **Credit: 3 hours**
- MATH 3251 - Applied Combinatorics **Credit: 3 hours**
- MATH 3510 - Foundations of Geometry **Credit: 3 hours**
- MATH 4110 - Number Theory **Credit: 3 hours**
- MATH 4150 - Linear Algebra **Credit: 3 hours**
- MATH 4260 - Mathematical Analysis **Credit: 3 hours**
- MATH 4300 - Regression Analysis **Credit: 3 hours**
- MATH 4480 - Graph Theory **Credit: 3 hours**
- MATH 4621 - Mathematical Statistics I **Credit: 3 hours**
- MATH 4622 - Mathematical Statistics II **Credit: 3 hours**
- MATH 4630 - Topics in Applied Statistics **Credit: 3 hours**
- MATH 4651 - Numerical Analysis I **Credit: 3 hours**
- MATH 4652 - Numerical Analysis II **Credit: 3 hours**
- MATH 4901 - Operations Research I **Credit: 3 hours**
- MATH 4902 - Operations Research II **Credit: 3 hours**
- MATH 4905 - Optimization **Credit: 3 hours**
- MATH 4910 - Mathematical Models **Credit: 3 hours**

Students interested in the Informatics: Mathematics must take the following prerequisite courses: MATH 1251, MATH 2252, MATH 2253, MATH 2260, and MATH 2270. (Some of these courses are normally taken in the core at Middle Georgia State College. They may also be approved transferred courses from other institutions.)

Total Hours: 120

Information Technology Degree Online (B.S.)

The Curriculum

(First and second years of the program)

The first two years of undergraduate studies include general education courses (Areas A - E) and IT Courses (Area F).

- General education courses may be approved transfer courses from other higher education institutions or completed entirely online through the Middle Georgia State's e-Core.
- Area F courses at Middle Georgia State may be completed through the college's School of Information Technology. They may also be approved transfer courses from other higher education institutions.
- Upper-division courses are completed during students' junior and senior years through the college's School of Information Technology (for IT courses) and School of Nursing & Health Sciences (for Health Informatics courses).

(Third and fourth years of the Program)

The third and fourth years of the undergraduate studies include three areas.

Area I – IT Core Curriculum (30 hours)

Area II – An IT Concentration (15 Hours)

To satisfy this area, students may choose one of the following IT concentrations:

- Information Assurance & Security
- Network Technologies and Administration
- Integrated Digital Media
- Software Development
- Gaming Design and Development

Area III – IT Electives (15 hours)

Students may choose to satisfy the 15 hours of upper-level electives in one of the following ways:

1. An additional IT concentration or Concentration in Health Informatics.
2. 15 hours of upper-level Information Technology courses within the IT concentrations and/or upper-level IT electives.
3. Transfer students with an associate's or bachelor's degree that satisfy the College's general education course requirements and who have not taken ITEC 2215, ITEC 2260, ITEC 2270, ITEC 2320, and ITEC 2380 (within the Area F) are required to take these courses and may use them as partial-credit toward IT electives in AREA III.

Total Hours: 120

Information Technology (Certificate)

A student completing this curriculum must satisfy Learning Support requirements in English, Reading, and Math unless exempted.

Curriculum for the Certificate in Information Technology (Career)

- ENGL 1101 - English Composition I **Credit: 3 hours**
- ITEC 2215 - Introduction to Information Technology **Credit: 3 hours**
- ITEC 2260 - Intro to Computer Programming **Credit: 3 hours**
- ITEC 2270 - Application Development **Credit: 3 hours**
- ITEC 2320 - Networking Essentials **Credit: 3 hours**
- ITEC 2380 - Web Development **Credit: 3 hours**

Select Either:

- MATH 1101 - Introduction to Mathematical Modeling **Credit: 3 hours**
or
- MATH 1111 - College Algebra **Credit: 3 hours**

Select One:

- MATH 1200 - Elementary Statistics **Credit: 3 hours**
or
- MATH 1200H - Honors Elementary Statistics **Credit: 3 hours**
or
- MATH 1220 - Discrete Mathematics **Credit: 3 hours**
or
- MATH 1251 - Calculus I **Credit: 4 hours**
or
Any 2000-level math course

ITEC Electives Credit - 6 Hours

ITEC Electives

Select from any ITEC 2000-level or higher courses

Total Hours: 30

Information Technology (Minor)

Middle Georgia State College's School of Information Technology offers a minor in Information Technology (IT) for undergraduates enrolled in any discipline or program other than IT. The IT minor is designed for students who wish to develop knowledge and skills in applying as well as integrating current computing technologies to enhance and support their primary field of studies.

Information technology has become increasingly important in such fields as education, nursing, business, biology, history, public service, and communications. Few careers exist today that are not impacted by technology, and graduates in all fields should be prepared to use it to its greatest potential.

Goal

A minor in Information Technology provides students with essential skills needed in a variety of fields, including:

- Enhancing the student's understanding of the fundamentals of information technology.
- Developing the student's ability to specify, select, and utilize information technology in his or her major field of study.
- Equipping students with the skills and terminology needed to interact with technology professionals.

The minor in Information Technology contains a total of 15 hours of coursework with a minimum of nine hours in upper division IT courses.

Grade Requirements: A grade of "C" or better must be earned in all courses used to satisfy the minor.

Required Coursework

One course is required,

Either:

- ITEC 2215 - Introduction to Information Technology **Credit:** 3 hours
or
- ITEC 2201 - Business Information Applications **Credit:** 3 hours

The additional four courses may be selected from any course in the IT curriculum, at least three of which **must be at the 3000 or 4000 level.**

While any combination of courses meeting the above requirements will be suitable for a minor, the School of Information Technology recommends that at least some of the selected courses focus on competencies central to the information technology profession. Courses selected from the following list will accomplish this goal.

- ITEC 2320 - Networking Essentials **Credit:** 3 hours
- ITEC 2380 - Web Development **Credit:** 3 hours
- ITEC 3155 - Systems Analysis and Design **Credit:** 3 hours
- ITEC 3235 - Human Computer Interaction **Credit:** 3 hours
- ITEC 3236 - Interactive Digital Media **Credit:** 3 hours
- ITEC 3245 - Database Principles **Credit:** 3 hours
- ITEC 3220 - Hardware and Systems Software **Credit:** 3 hours
- ITEC 3300 - Project Management **Credit:** 3 hours
- ITEC 3340 - Business Analysis Using Excel **Credit:** 3 hours
- ITEC 4205 - Legal and Ethical Issues in Information Technology **Credit:** 3 hours

And any other ITEC courses approved by the Dean of the School of Information Technology

Note: Courses taken from this list to satisfy a major may not be used for credit toward the completion of this minor.

Total Hours: 15

Web Design and Instructional Technology (Minor)

Middle Georgia State College's School of Information Technology minor in Web Design and Instructional Technology (WIT) is designed for technology trainers, teachers, instructional support specialists or other professionals who are interested in learning more about integrating the use of computers and other Web-based technologies into teaching and learning.

The Web Design and Instructional Technology Minor contains a minimum of 18 hours of coursework.

Grade Requirements: A grade of "C" or better must be earned in all courses used to satisfy the minor.

Required Coursework:

- **Select either:**
ITEC 2201 - Business Information Applications (3 hours)
or
- ITEC 2215 - Introduction to Information Technology (3 hours)

Additional Required Courses:

ITEC 2380 - Web Development (3 hours)
ITEC 3235 - Human Computer Interaction (3 hours)
ITEC 3236 - Interactive Digital Media (3 hours)
ITEC 4231 - Designing Content for Instructional Applications (3 hours)
ITEC 4284 - Web Multimedia Delivery (3 hours)

Note: Courses taken from this list to satisfy a major may not be used for credit toward the completion of this minor.

Total Hours: 18

Computer Science (A.S.)

Area A Credit: 10 hours

Essential Skills

- ENGL 1101 - English Composition I **Credit: 3 hours**
- ENGL 1102 - English Composition II **Credit: 3 hours**
- MATH 1113- Pre-calculus - **Credit: 4 hours**

Area B Credit: 4 Hours

Institutional Options – To Be Determined

Area C Credit: 6 hours

Humanities/Fine Arts

- Literature Elective **Credit: 3 hours**
- Area C Elective **Credit: 3 hours**

Area D Credit: 12 Hours

Science, Math, and Technology

- Science Sequence I - **Credit: 4 hours**
- Science Sequence II - **Credit: 4 hours**
- MATH 1127- Calculus I- **Credit: 4 hours**

Area E Credit: 12 Hours

Social Sciences

- Take **one** of the following courses - **Credit: 3 hours**
HIST 2111 - United States History to 1865 **Credit: 3 hours**
HIST 2112 – United States History since 1865 **Credit: 3 hours**
- POLS 1101 - American Government **Credit: 3 hours**
- Area E Global Perspectives Elective **Credit: 3 hours**
Choose from the following courses:
HIST 1111 - History of World Civilizations to 1650 **Credit: 3 hours**
HIST 1112 - History of World Civilizations Since 1650 **Credit: 3 hours**
POLS 2301 - Introduction to Comparative Politics **Credit: 3 hours**
POLS 2401 - Introduction to Global Issues **Credit: 3 hours**
- Area E Elective **Credit: 3 hours**

Outside Core: 2 hrs


- HLTH 1101 – Health - **Credit: 2 hours**

Area F Credit: 18 Hours

Major Field

- CSCI 1301 Computer Science I - **Credit: 4 hours**
- CSCI 1302 Computer Science II - **Credit: 4 hours**
- MATH 1128 Calculus II – **Credit: 4 hours**
- Take two of the following courses - **Credit: 3 hours**
CSCI 1001 Introduction to Computer Science - **Credit: 3 hours**
CSCI 1101 Introduction to Visual Basic.Net Programming - **Credit: 3 hours**
CSCI 1201 Introduction to C++ Programming - **Credit: 3 hours**
CSCI 1202 Object-Oriented Programming in C++ - **Credit: 3 hours**

Total Hours: 64


10-10-12