You will need to complete the requirements in this booklet in order to graduate with a degree in Computing from ETSU.

Bring this booklet to each advising session to prepare for the next semester. If you have questions, please ask your advisor.

Advisement is required by all Computing Majors each semester before they are allowed to register for the following semester.
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E-mail: deancm2@etsu.edu

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Mrs. Sonya Batchelder  
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E-mail: batchels@etsu.edu

Department of Computing Faculty

<table>
<thead>
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<th>Location</th>
<th>Phone</th>
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</tr>
</thead>
<tbody>
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<td>Don Bailes Ph.D.</td>
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<td>Ferdaus Kawsar Ph.D.</td>
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<td>423-439-5328</td>
<td><a href="mailto:kawsar@etsu.edu">kawsar@etsu.edu</a></td>
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<td>Mohammad Khan Ph.D.</td>
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<td>Michael Lehrfeld Ph.D.</td>
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<tr>
<td>Phil Pfeiffer Ph.D.</td>
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<tr>
<td>Jack Ramsey</td>
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<td>Jeff Roach Ph.D.</td>
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<td><a href="mailto:roachjw@etsu.edu">roachjw@etsu.edu</a></td>
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<td>David Tarnoff</td>
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<td>423-439-6404</td>
<td><a href="mailto:tarnoff@etsu.edu">tarnoff@etsu.edu</a></td>
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<td><a href="mailto:wallacec@etsu.edu">wallacec@etsu.edu</a></td>
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<tr>
<td>David Robinson</td>
<td>Wilson Wallis 6A</td>
<td>423-439-7412</td>
<td><a href="mailto:robinsrd@etsu.edu">robinsrd@etsu.edu</a></td>
</tr>
</tbody>
</table>

2
## Additional Contact Information

<table>
<thead>
<tr>
<th>Office</th>
<th>Location</th>
<th>Phone</th>
<th>Email</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td>Office of Admission</td>
<td>Burgin Dossett</td>
<td>(423)</td>
<td><a href="mailto:go2etsu@etsu.edu">go2etsu@etsu.edu</a></td>
<td><a href="https://www.etsu.edu/admissions/">https://www.etsu.edu/admissions/</a></td>
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<td>Office of Financial Aid</td>
<td>Burgin Dossett</td>
<td>(423)</td>
<td><a href="mailto:finaid@etsu.edu">finaid@etsu.edu</a></td>
<td><a href="https://www.etsu.edu/finaid/counselors.php">https://www.etsu.edu/finaid/counselors.php</a></td>
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<td>Bursar's Office</td>
<td>Burgin Dossett</td>
<td>(423)</td>
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<td><a href="https://www.etsu.edu/bf/bursar/">https://www.etsu.edu/bf/bursar/</a></td>
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<td>Culp Center</td>
<td>(423)</td>
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<td><a href="https://www.etsu.edu/scholarships/">https://www.etsu.edu/scholarships/</a></td>
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<tr>
<td>CBAT Scholarships</td>
<td>Sam-Wilson Hall</td>
<td>(423)</td>
<td>Your Advisor</td>
<td><a href="https://www.etsu.edu/cbat/students/cbatfinaid.php">https://www.etsu.edu/cbat/students/cbatfinaid.php</a></td>
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<tr>
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<td><a href="https://www.etsu.edu/reg/">https://www.etsu.edu/reg/</a></td>
</tr>
</tbody>
</table>

## Degree Works

- You can access your Degree Works through your GoldLink.
- Degree Works is an academic advising and degree audit tool that helps advisors and students track their degree progress in real-time!
- Fully integrated with GoldLink, Degree Works gives students an up-to-date, play-by-play of courses taken and courses needed to help them plan and complete their degree(s) on time!
- "What If..." scenarios, allow students to experiment with changing majors or degree plans.
- Degree Works performs best when using browsers other than Microsoft Edge and IE 9
- **Student Education Plan in Degree Works now** provides 4 different view:
  - Calendar view - compact view of the 4 year plan
  - Audit view - side by side view of your audit & 4 year plan
  - Edit view - changes to the plan are made in this view
  - Note view - Allows you to print notes attached to a class
- **Benefits and Features of Degree Works**
  - Provides real-time degree audit, history and information and allows for improved course and degree planning
  - Provides planning scenarios if you change majors, concentrations or plans
  - Improves Advisor communication for courses and requirements
  - GPA calculator - See how final grades may affect the overall GPA
  - Still Need Courses- Hyperlinks to info. about the course, proficiency intensives etc.
- You will not be cleared for graduation until completion of everything in your Degree Works.
Bachelor of Science in Computing with concentrations in

- Computer Science (CS)
- Information Systems (IS)
- Information Technology (IT)

The three concentrations share a common core of courses that provides a strong background in programming, design, computer organization, database management, networking, security, and software engineering. All concentrations require a course in probability and statistics and on in discrete mathematics. Concentrations emphasize practical skills needed to succeed in careers in computing, including technical skills, written and oral communication, project management, and teamwork. Graduates work in a wide variety of industries throughout the region and nation at highly competitive salaries. Many graduates also complete advance degrees, including the department’s graduate program.

**COMPUTER SCIENCE (CS)** - The CS concentration supplements the core curriculum with courses in data structures, algorithms, computer architecture, and operating systems. Students apply their knowledge to the development of systems-level software programs, including real-time graphics simulations, distributed systems, and operating systems. This concentration is also recommended for those who plan to do graduate work in computer science.

**INFORMATION SYSTEMS (IS)** - The IS concentration supplements the core curriculum with courses in Enterprise Resource Planning (ERP) and enterprise system implementation and programming. Students select an emphasis in accountancy or management, and explore the application of information systems in business process definition and execution. This concentration is designed for students who wish to apply their knowledge in enterprise information systems, business-oriented computing or within their emphasis area. This concentration is recommended for those who plan to do graduate work in information systems or business administration.

**INFORMATION TECHNOLOGY (IT)** - The IT concentration supplements the core curriculum with courses in web development, database and system administration, and human computer interaction. This concentration is designed for students who wish to apply their knowledge in these fields and for those who plan to do graduate work in information technology.

The undergraduate Computer Science, Information Systems, and Information Technology programs at ETSU are accredited by the Computing Accreditation Commission (CAC) of ABET, http://www.abet.org, an accrediting body recognized by the Council for Higher Education Accreditation (CHEA).
## Computing Concentration Comparison Chart

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Computer Science (CS)</th>
<th>Information Systems (IS)</th>
<th>Information Technology (IT)</th>
</tr>
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<tbody>
<tr>
<td><strong>Total Credit Hours</strong></td>
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<tr>
<td></td>
<td>124 Credit Hours</td>
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<tr>
<td><strong>General Education Requirements (All Computing must take MATH 1530)</strong></td>
<td>41 Credit Hours</td>
<td>41 Credit Hours Of Those: ECON 2210 (3 cr.) for Social and Behavioral</td>
<td>41 Credit Hours</td>
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<tr>
<td><strong>Concentration Core</strong></td>
<td></td>
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<tr>
<td></td>
<td>33 Credit Hours</td>
<td></td>
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<tr>
<td><strong>Major Electives (At least one must be at the 3xxx/4xxx level)</strong></td>
<td>9 Credit Hours</td>
<td>9 Credit Hours</td>
<td>9 Credit Hours</td>
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<tr>
<td></td>
<td>25-26 Credit Hours *</td>
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</tr>
<tr>
<td><strong>Free Electives</strong></td>
<td>2-5 Credit Hours</td>
<td>0-4 Credit Hours *</td>
<td>10-13 Credit Hours</td>
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<tr>
<td><strong>Minor Suggestions (No Minor Required)</strong></td>
<td>Mathematics Minor Works Well</td>
<td>Accounting or Management Minor Work Well</td>
<td>Many Minors work well due to number of Free Elective Hours</td>
</tr>
<tr>
<td><strong>Special Notes</strong></td>
<td></td>
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</tr>
<tr>
<td>• Calculus I</td>
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<tr>
<td>• Calculus II</td>
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<tr>
<td>• Linear Algebra</td>
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<td></td>
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<tr>
<td>• Additional Lab Science</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Important Notes</strong></td>
<td></td>
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</tr>
<tr>
<td>• Students may take UIT Proficiency Exam (0 cr.) instead of CSCI 1100 (3 cr.), but will be required to make up the 3 credit hours.</td>
<td></td>
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</tr>
<tr>
<td>• CSCI 1510 is required for all freshman computing students. Transfer students may substitute these credits for an additional Approved Major Elective.</td>
<td></td>
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</tr>
<tr>
<td>• CSCI 1510 may be attempted only once. If a student fails CSCI 1510, then the student must take another approved major elective to replace those 3 credit hours.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All major electives are APPROVED major electives, meaning the electives must be discussed and approved by the student's advisor.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• Any course taken at another institution and transferred into ETSU must be evaluated and does not automatically count as a major requirement. Acceptance of transfer coursework is subject to articulation agreements and the decision of the Department Advisor or Chair.</td>
<td></td>
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</tr>
<tr>
<td>• TN eCampus (formerly RODP) courses may not be counted towards a computing concentration.</td>
<td></td>
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</tbody>
</table>
Graduation Requirements

In order to remain in good standing, a computing major must attain:

- An overall GPA of 2.5 or better; and
- A GPA of 2.5 or better in all computing courses; and
- A grade of “B-” or better in CSCI 1250 and CSCI 1260; and
- A grade of “C-” or better in all other major requirements. This includes both common core and concentration-specific courses and all courses from other departments that satisfy major requirements.
- A minimum grade of “C” in ENGL 1010 and ENGL 1020.
- Complete CSCI 1100 or the UIT Proficiency Exam
- Complete 124 credit hours Including:
  - ETSU General Education Requirements
  - Major Requirements
  - Any Additional Electives
- Complete all required courses in at most three attempts. An attempt is defined as registering for and remaining enrolled in a course after the third week of the semester. (Withdrawing from a course after the third week of the semester is considered an attempt.)
  - Computing majors and minors will be required to change their program of study if these requirements cannot be met.
- Complete the California Critical Thinking Skills Test (CCTST)
- Major Field Test (If Applicable)
- No Minor is Required
### Writing: 6 credit (Grade C or better for both)
- ENGL 1010 Critical Reading & Exp. Writing (3)
- ENGL 1020 Critical Thinking & Argument (3)

### Oral Communication: 3 credits
- COMM 2055 Argumentation & Debate (3)

### Literature: 3 credits (select one)
- ENGL 2030 Literary Heritage (3)
- ENGL 2110 American Literature II (3)
- ENGL 2120 American Literature II (3)
- ENGL 2210 British Literature I (3)
- ENGL 2220 British Literature II (3)
- ENGL 2330 World Literature (3)
- ENGL 2430 European Literature (3)

### Fine Arts: 3 credits (select one)
- ARTA 1030 Art Appreciation (3 credits)
- ARTH 2010 Art History Survey I (3)
- ARTH 2010 Art History Survey II (3)
- BLUE 2150 American Roots Music (3)
- DANC 1500 Dance as Human Experience (3)
- HUMT 2310 Humanities I (3)
- HUMT 2320 Humanities II (3)
- MUSC 1030 Introduction to Music (3)
- MUSC 1035 History of Jazz (3)
- THEA 1030 Introduction to Theater (3)

### Humanities: 3 credits (select one)
- ENGL 3150 Lit., Ethics, and Values (3)
- ENGL 3280 Mythology (3)
- ENTC 3020 Technology and Society (3)
- HIST 1110 World Hist. & Civ. to 1500 (3)
- HIST 1120 World Hist. & Civ. since 1500 (3)
- PHIL 1030 Introduction to Philosophy (3)
- PHIL 2020 Introduction to Ethics (3)
- PHIL 2040 Philosophy as Conversation (3)
- RELI 2210 Intro. to the Study of Religion (3)
- PHIL 2640 Science in the Modern World (3)

### History: 6 credits (select two)
- HIST 2010 US to 1877 (3)
- HIST 2020 U.S. Since 1877 (3)
- HIST 2030 History of Tennessee (3)

### Mathematics: 3 credits
- MATH 1530 Prob. and Stats.- Noncalculus (3)

### Social/Behavioral Sciences: 6 credits (select two)
- ANTH 1240 Intro. to Cultural Anthropology (3)
- ECON 2220 Principles of Microeconomics (3)
- ECON 1050 Economics & Society (3) OR ECON 2210 Principles of Macroeconomics (3)
- HIST 1110 World Hist. & Civ. to 1500 (3)
- HIST 1120 World Hist. & Civ. since 1500 (3)
- HDAL 2310 Developmental Psychology (3)
- HDAL 2340 Understanding Cultural Div. (3)
- MCOM 1030 Intro. to Mass Communications (3)
- PSCI 1110 Intro. to Political Science (3)
- PSCI 1120 Intro. to American Government (3)
- PSYC 1310 Introduction to Psychology (3)
- SOCI 1020 Introduction to Sociology (3)
- SOCI 2020 Social Problems (3)
- SRVL 1020 Intro. to Service Learning (3)
- WMST 2010 Intro. to Women's Studies (3)

### Natural Sciences: 8 credits, Consisting of two of the following in the same science sequence. (Some require labs which are listed directly after the lecture.)
- ASTR 1010 Astronomy I (4)
- ASTR 1020 Astronomy II (4)
- ASTR 1035 Life in the Universe (4)
- BIOL 1110 Biology for Science Majors I (4)
- BIOL 1111 Biology for Science Majors I Lab (0)
- BIOL 1120 Biology for Science Majors II (4)
- BIOL 1121 Biology for Science Majors II Lab (0)
- CHEM 1110 General Chemistry I (4)
- CHEM 1111 General Chemistry I Lab (0)
- CHEM 1120 General Chemistry II (4)
- CHEM 1121 General Chemistry II Lab (0)
- GEOG 1010 Geosciences: Earth & Society (3)
- GEOG 1040 Geosciences: Earth & Society Lab (1)
- PHIL 1030 Introduction to Philosophy (3)
- PHIL 2020 Introduction to Ethics (3)
- RELI 2210 Intro. to the Study of Religion (3)
- PHIL 2640 Science in the Modern World (3)
- PHYS 2010 Gen. Physics I-Noncalculus (3)
- PHYS 2011 Gen. Physics I-Lab-Noncalculus (1)
- PHYS 2020 Gen. Physics II-Noncalculus (3)
- PHYS 2021 Gen. Physics II Lab-Noncalculus (1)
- PHYS 2110 Technical Physics I-Calculus (5)
- PHYS 2120 Technical Physics II-Calculus (5)

These are the only sciences that count for Computing.
## General Education Requirements

### Written Composition (6 hours)
- [ ] ENGL 1010 Crit. Reading & Exp. Writing (3)
- [ ] ENGL 1020 Crit. Thinking & Argumentation (3)

### Oral Communication (3 hours)
- [ ] COMM 2055 Argumentation and Debate

### Literature (3 hours)
- [ ] ENGL 1010

### Social and Behavioral Science (6 hours)

### Using Information Technology (0 or 3 hours)
- [ ] CSCI 1100 (3) \(OR\) Proficiency Exam (0)

### History (6 hours)
- [ ] HIST ____________
- [ ] HIST ____________

### Fine Arts (3 hours)

### Humanities (3 hours)

### Natural Science (8 hours of Approved Sequence)

### Mathematics (3 hours)
- [ ] MATH 1530 Probability and Statistics (3)

## Major Requirements

### Computing Core (33 Hours)
- [ ] CSCI 1250 Intro. to Computer Science I (4) \(Must be a B- or better\)
- [ ] CSCI 1260 Intro. to Computer Science II (4) \(Must be a B- or better\)
- [ ] CSCI 1400 PC Set-Up and Maintenance (1)
- [ ] CSCI 1510 Student in University (3)
- [ ] CSCI 1900 Math for Computer Science (3)
- [ ] CSCI 2020 Fundamentals of Database (3)
- [ ] CSCI 2150 Computer Organization (3)
- [ ] CSCI 3250 Software Engineering I (3)
- [ ] CSCI 3350 Software Engineering II (3)
- [ ] CSCI 3400 Networking Fundamentals (3)
- [ ] CSCI 3500 Info. Security and Assurance (3)

### CS Concentration Courses (36 Hours)
- [ ] CSCI 2160 Assembly Language (4)
- [ ] CSCI 2200 Unix Fundamentals (3)
- [ ] CSCI 2210 Data Structures (4)
- [ ] CSCI 3230 Algorithms (4)
- [ ] CSCI 4717 Computer Architecture (3)
- [ ] CSCI 4727 Operating Systems (3)
- [ ] MATH 1910 Calculus I (4)
- [ ] MATH 1920 Calculus II (4)
- [ ] MATH 2010 Linear Algebra (3)
- [ ] Additional Lab Science ____________ (4)

### Major Electives (9 Hours) \(^*\)Co-op and Internships do not apply
- [ ] APPROVED Major Elective CSCI ____________ (3)
- [ ] APPROVED Major Elective CSCI ____________ (3)
- [ ] 3XXX/4XXX Major Elective CSCI ____________ (3)

### Free Electives (2-5 hours Based on Hours from CSCI 1100)
- [ ] ________________ ( )
- [ ] ________________ ( )
Catalog Year 2018-2019
Computer Science (CS) Prerequisite Courses Tree (prerequisites can change)

CSCI 1250 (4 cr) Introduction to Computer Science I (Must have a B- or better to proceed)

CSCI 1900 (3 cr) Math for Computer Science

CSCI 1100 (3 cr) Using Information Technology

MATH 1910 (4 cr) Calculus I

CSCI 1260 (4 cr) Introduction to Computer Science II (Must have a B- or better to proceed)

CSCI 2020 (3 cr) Fundamentals of Database

CSCI 2150 (3 cr) Computer Organization

CSCI 1400 (1 cr) PC Set-Up and Maintenance

MATH 1920 (4 cr) Calculus II

CSCI 2210 (4 cr) Data Structures

CSCI 2200 (3 cr) Unix Fundamentals

CSCI 2160 (4 cr) Assembly Language

CSCI 3400 (3 cr) Networking Fundamentals

CSCI 2100 (3 cr) Computer Architecture

CSCI 3500 (3 cr) Information Security and Assurance

CSCI 1510 (3 cr) Student in University

CSCI Major Elective

CSCI Major Elective

CSCI 3000+ Major Elective

CSCI 3350 (3 cr) Software Engineering II

CSCI 4717 (3 cr) Computer Architecture

CSCI 3230 (4 cr) Algorithms

CSCI 3250 (3 cr) Software Engineering I

CSCI 4727 (3 cr) Operating Systems

CSCI Major Elective

Other Requirements

MATH 2010 (3 cr) Linear Algebra

Additional Lab Science
# Information Systems (IS) Concentration Checklist

## General Education Requirements

### Written Composition (6 hours)
- ENGL 1010 Crit. Reading & Exp. Writing (3)
- ENGL 1020 Crit. Thinking & Argumentation (3)

### Oral Communication (3 hours)
- COMM 2055 Argumentation and Debate

### Literature (3 hours)
- ENGL ________________

### Social and Behavioral Science (6 hours)
- ________________

### Using Information Technology (0 or 3 hours)
- CSCI 1100 (3) **OR** Proficiency Exam (0)

### History (6 hours)
- HIST ________________

### Fine Arts (3 hours)
- ________________

### Humanities (3 hours)
- ________________

### Natural Science (8 hours of Approved Sequence)
- ________________

### Mathematics (3 hours)
- MATH 1530 Probability and Statistics (3)

## Major Requirements

### Computing Core (33 Hours)
- CSCI 1250 Intro. to Computer Science I (4) *(Must be a B- or better)*
- CSCI 1260 Intro. to Computer Science II (4) *(Must be a B- or better)*
- CSCI 1400 PC Set-Up and Maintenance (1)
- CSCI 1510 Student in University (3)
- CSCI 1900 Math for Computer Science (3)
- CSCI 2020 Fundamentals of Database (3)
- CSCI 2150 Computer Organization (3)
- CSCI 3250 Software Engineering I (3)
- CSCI 3350 Software Engineering II (3)
- CSCI 3400 Networking Fundamentals (3)
- CSCI 3500 Info. Security and Assurance (3)

### IS Concentration Courses (25-26 Hours)
- CSCI 1710 Web Design and Development (3)
- CSCI 2910 Server-Side Web Programming (4)
- CSCI 3720 Fund. of Business Info. Systems (3)
- CSCI 3020 Database Advanced Topics (3)
- CSCI 4757 Info. System Implementation (3)
- CSCI 4767 Enterprise Programming (3)
- CSCI 4770 Info. Systems Strategy and Mgmt. (3)
- MATH 1910 Calculus I (4) **OR** MATH 1840 Analytic Geom. & Diff. Calculus (3)

### Major Electives (9 Hours) *(Co-op and Internships do not apply)*
- APPROVED Major Elective CSCI _________(3)
- APPROVED Major Elective CSCI _________(3)
- 3XXX/4XXX Major Elective CSCI _________(3)

### Information Systems Emphasis (15 hours)

#### Choose One Track:

**Accountancy Track**
- ECON 2210 Principles of Macroeconomics (3)
- ACCT 2010 Principles of Accounting I (3)
- ACCT 2020 Principles of Accounting II (3)
- ACCT 3010 Financial Accounting I (3)
- ACCT 3110 Management Accounting (3)

**Management Track**
- ECON 2210 Principles of Macroeconomics (3)
- ACCT 2010 Principles of Accounting I (3)
- MGMT 3000 Organization Behavior Mgmt. (3)
- MGMT 4020 Organizational Theory and Dev. (3)
- MGMT 4030 Current Management Issues (3)

### Free Electives

(0-4 Hours Based on Hours from CSCI 1100 and Choice between MATH 1840 and MATH 1910)
- __________________________( )
- __________________________( )
Catalog Year 2018-2019
Information Systems (IS) Prerequisite Courses Tree (prerequisites can change)

- CSCI 1250 (4 cr) Introduction to Computer Science I (Must have a B- or better to proceed)
- CSCI 1900 (3 cr) Math for Computer Science
- CSCI 1100 (3 cr) Using Information Technology
- CSCI 1260 (4 cr) Introduction to Computer Science II (Must have a B- or better to proceed)
- CSCI 2150 (3 cr) Computer Organization
- CSCI 1400 (1 cr) PC Set-Up and Maintenance

- CSCI 1710 (3 cr) Web Design and Development
- CSCI 2020 (3 cr) Fundamentals of Database
- CSCI 1100 (3 cr) Using Information Technology
- CSCI 1260 (4 cr) Introduction to Computer Science II (Must have a B- or better to proceed)
- CSCI 2150 (3 cr) Computer Organization
- CSCI 1400 (1 cr) PC Set-Up and Maintenance

- CSCI 2910 (4 cr) Server-Side Web Programming
- CSCI 3720 (3 cr) Fundamentals of Business IS
- ACCT 2010 (3 cr) Principles of Accounting I
- CSCI 3400 (3 cr) Networking Fundamentals

- CSCI 1710 (3 cr) Web Design and Development
- CSCI 2020 (3 cr) Fundamentals of Database
- CSCI 1100 (3 cr) Using Information Technology
- CSCI 1260 (4 cr) Introduction to Computer Science II (Must have a B- or better to proceed)
- CSCI 2150 (3 cr) Computer Organization
- CSCI 1400 (1 cr) PC Set-Up and Maintenance

- CSCI 2910 (4 cr) Server-Side Web Programming
- CSCI 3720 (3 cr) Fundamentals of Business IS
- ACCT 2010 (3 cr) Principles of Accounting I
- CSCI 3400 (3 cr) Networking Fundamentals

- CSCI 3020 (3 cr) Database Advanced Topics
- CSCI 3250 (3 cr) Software Engineering I
- CSCI 4767 (3 cr) Enterprise Programming (Spring Only)
- CSCI 4757 IS Implementation (Fall Only)
- CSCI 4770 (3 cr) Information Systems Strategy and Management (within 2 semesters of graduating)

- CSCI 3000+ Major Elective
- CSCI 3250 (3 cr) Software Engineering I
- CSCI 4767 (3 cr) Enterprise Programming (Spring Only)
- CSCI 4757 IS Implementation (Fall Only)
- CSCI 4770 (3 cr) Information Systems Strategy and Management (within 2 semesters of graduating)

- Other Requirements
  - ECON 2210 (3 cr) Principles of Macroeconomics
  - Course in Chosen Emphasis
  - Course in Chosen Emphasis
  - Course in Chosen Emphasis
  - MATH 1910 (4 cr) Calculus I OR MATH 1840 (3) Analytic Geom. & Differ. Calculus
### General Education Requirements

**Written Composition (6 hours)**
- [ ] ENGL 1010 Crit. Reading & Exp. Writing (3)
- [ ] ENGL 1020 Crit. Thinking & Argumentation (3)

**Oral Communication (3 hours)**
- [ ] COMM 2055 Argumentation and Debate

**Literature (3 hours)**
- [ ] ENGL _________________

**Social and Behavioral Science (6 hours)**
- [ ] ______________________
- [ ] ______________________

**Using Information Technology (0 or 3 hours)**
- [ ] CSCI 1100 (3) OR Proficiency Exam (0)

**History (6 hours)**
- [ ] HIST _________________
- [ ] HIST _________________

**Fine Arts (3 hours)**
- [ ] ______________________

**Humanities (3 hours)**
- [ ] ______________________

**Natural Science (8 hours of Approved Sequence)**
- [ ] ______________________
- [ ] ______________________

**Mathematics (3 hours)**
- [ ] MATH 1530 Probability and Statistics (3)

### Major Requirements

**Computing Core (33 Hours)**
- [ ] CSCI 1250 Intro. to Computer Science I (4)
  *(Must be a B- or better)*
- [ ] CSCI 1260 Intro. to Computer Science II (4)
  *(Must be a B- or better)*
- [ ] CSCI 2140 PC Set-Up and Maintenance (1)
- [ ] CSCI 1510 Student in University (3)
- [ ] CSCI 1900 Math for Computer Science (3)
- [ ] CSCI 2020 Fundamentals of Database (3)
- [ ] CSCI 2150 Computer Organization (3)
- [ ] CSCI 3250 Software Engineering I (3)
- [ ] CSCI 3350 Software Engineering II (3)
- [ ] CSCI 3400 Networking Fundamentals (3)
- [ ] CSCI 3500 Info. Security and Assurance (3)

**IT Concentration Courses (28 Hours)**
- [ ] CSCI 1710 Web Design and Development (3)
- [ ] CSCI 3200 Unix Fundamentals (3)
- [ ] CSCI 2910 Server-Side Web Programming (4)
- [ ] CSCI 3020 Database Advanced Topics (3)
- [ ] CSCI 3110 Adv. Topics in Web Development (3)
- [ ] CSCI 3720 Fund. of Business Info. Systems (3)
- [ ] CSCI 4417 Intro to System Administration (3)
- [ ] CSCI 4927 Human & Computer Interaction (3)
- [ ] CSCI 4800 Senior Project in IT (3)

**Major Electives (9 Hours)** *(Co-op and Internships do not apply)*
- [ ] APPROVED Major Elective CSCI ________(3)
- [ ] APPROVED Major Elective CSCI ________(3)
- [ ] 3XXX/4XXX Major Elective CSCI ________(3)

### Free Electives

**Free Electives** *(10-13 Hours Based on Hours from CSCI 1100)*

- [ ] ______________________ ( )
- [ ] ______________________ ( )
- [ ] ______________________ ( )
- [ ] ______________________ ( )
- [ ] ______________________ ( )
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Possible Electives for Concentrations

- **All Concentrations**
  - CSCI 1720 – Intermediate Topics in Web Development
  - CSCI 4157 – Interactive Graphics
  - CSCI 4317 – Internet and Computer Law
  - CSCI 4507 – Computer Forensics
  - CSCI 4537 – Ethical Hacking
  - CSCI 4900 – Independent Study
  - CSCI 4910 – Selected Topics in Computer Science
  - CSCI 4957 – Special Topics in Computer Science

- **CS Concentrations**
  - CSCI 1710 – Web Design and Development
  - CSCI 2910 – Server-Side Web Programming
  - CSCI 3020 – Database Advanced Topics
  - CSCI 3720 – Fundamentals of Business Information Systems
  - CSCI 4417 – Intro to System Administration
  - CSCI 4757 – IS Implementation
  - CSCI 4767 – Enterprise Programming
  - CSCI 4927 – Human Computer Interaction

- **IS Concentrations**
  - CSCI 2200 – Unix Fundamentals
  - CSCI 2160 – Assembly Language
  - CSCI 2210 – Data Structures
  - CSCI 3230 – Algorithms
  - CSCI 4417 – Introduction to System Administration
  - CSCI 4717 – Computer Architecture
  - CSCI 4727 – Operating Systems
  - CSCI 4927 – Human Computer Interaction
  - One course related to emphasis area

- **IT Concentrations**
  - CSCI 2160 – Assembly Language
  - CSCI 2210 – Data Structures
  - CSCI 3230 – Algorithms
  - CSCI 4717 – Computer Architecture
  - CSCI 4727 – Operating Systems
  - CSCI 4757 – IS Implementation
  - CSCI 4767 – Enterprise Programming
### Suggested Course Sequences (Subject to Course Availability)

**Computer Science Concentration 124 Credits**

**Freshman Year First Semester:** 16 Credits
- CSCI 1100 Using Information Technology (3 cr.)
- CSCI 1250 Introduction to Computer Science I (4 cr.)
- CSCI 1510 Student in University (3 cr.)
- CSCI 1900 Math for Computer Science (3 cr.)
- ENGL 1010 Critical Reading & Expository Writing (3 cr.)

**Freshman Year Second Semester:** 16 Credits
- CSCI 1260 Introduction to Computer Science II (4 cr.)
- CSCI 2020 Fundamentals of Database (3 cr.)
- ENGL 1020 Critical Thinking and Argumentation (3 cr.)
- COMM 2055 Argumentation and Debate (3 cr.)
- MATH 1530 Probability & Statistics – Noncalculus (3 cr.)

**Sophomore Year First Semester:** 16 Credits
- CSCI 2150 Computer Organization (3 cr.)
- CSCI 2200 UNIX Fundamentals (3 cr.)
- MATH 1910 Calculus I (4 cr.)
- History Course (3 cr.)
- Humanities Course (3 cr.)

**Sophomore Year Second Semester:** 15 Credits
- CSCI 2210 Data Structures (4 cr.)
- CSCI 1400 PC Set-up and Maintenance (1 credit)
- MATH 1920 Calculus II (4 cr.)
- History Course (3 cr.)
- Social/Behavioral Sciences (3 cr.)

**Junior Year First Semester:** 14 Credits
- CSCI 2160 Assembly Language (4 cr.)
- CSCI 3400 Networking Fundamentals (3 cr.)
- Natural Science Sequence 1st Course (4 cr.)

**Junior Year Second Semester:** 16 Credits
- CSCI 3230 Algorithms (4 cr.)
- CSCI 3500 Information Security and Assurance (3 cr.)
- CSCI Approved Major Elective (3 cr.)
- Free Elective (2 cr.)
- Natural Science Sequence 2nd Course (4 cr.)

**Senior Year First Semester:** 16 Credits
- CSCI 3250 Software Engineering I (3 cr.)
- CSCI 4767 Enterprise Programming (3 cr.)
- IS Emphasis Course (3 cr.)
- Social/Behavioral Sciences (3 cr.)
- Natural Science Sequence 2nd Course (4 cr.)

**Senior Year Second Semester:** 15 Credits
- CSCI 4770 Info Systems Strategy & Mgmt (3 cr.)
- CSCI Approved Major Elective (3 cr.)
- CSCI 3000+ Major Elective (3 cr.)
- Fine Arts Course (3 cr.)
- History Course (3 cr.)

### Information Systems Concentration 124 Credits

**Freshman Year First Semester:** 16 Credits
- CSCI 1100 Using Information Technology (3 cr.)
- CSCI 1250 Introduction to Computer Science I (4 cr.)
- CSCI 1510 Student in University (3 cr.)
- CSCI 1900 Math for Computer Science (3 cr.)
- ENGL 1010 Critical Reading & Expository Writing (3 cr.)

**Freshman Year Second Semester:** 16 Credits
- CSCI 1260 Introduction to Computer Science II (4 cr.)
- CSCI 1710 Web Design and Development (3 cr.)
- COMM 2055 Argumentation and Debate (3 cr.)
- ENGL 1020 Critical Thinking and Argumentation (3 cr.)
- MATH 1530 Probability & Statistics – Noncalculus (3 cr.)

**Sophomore Year First Semester:** 14 Credits
- CSCI 1400 PC Set-up and Maintenance (1 credit)
- CSCI 2020 Fundamentals of Database (3 cr.)
- CSCI 2150 Computer Organization (3 cr.)
- MATH 1840 (3 cr.) OR MATH 1910 (4 credit)
- Humanities Course (3 cr.)
- Free Elective (0-1 cr.)

**Sophomore Year Second Semester:** 16 Credits
- CSCI 2910 Server Side Web Programming (4 cr.)
- CSCI 3400 Networking Fundamentals (3 cr.)
- ACCT 2010 - IS Emphasis Course (3 cr.)
- ECON 2210 - Social/Behavioral Sciences (3 cr.)
- History Course (3 cr.)

**Junior Year First Semester:** 16 Credits
- CSCI 3020 Database Advanced Topics (3 cr.)
- CSCI 3720 Fund. of Business Info Systems (3 cr.)
- CSCI 3500 Information Security and Assurance (3 cr.)
- IS Emphasis Course (3 cr.)
- Natural Science Sequence 1st Course (4 cr.)

**Junior Year Second Semester:** 16 Credits
- CSCI 3250 Software Engineering I (3 cr.)
- CSCI 4767 Enterprise Programming (3 cr.)
- IS Emphasis Course (3 cr.)
- Social/Behavioral Sciences (3 cr.)
- Natural Science Sequence 2nd Course (4 cr.)

**Senior Year First Semester:** 15 Credits
- CSCI 3350 Software Engineering II (3 cr.)
- CSCI 4757 Information Systems Implementation (3 cr.)
- CSCI Approved Major Elective (3 cr.)
- IS Emphasis Course (3 cr.)
- Literature Course (3 cr.)

**Senior Year Second Semester:** 15 Credits
- CSCI 4770 Info Systems Strategy & Mgmt (3 cr.)
- CSCI Approved Major Elective (3 cr.)
- CSCI 3000+ Major Elective (3 cr.)
- Fine Arts Course (3 cr.)
- History Course (3 cr.)

### Information Technology Concentration 124 Credits

**Freshman Year First Semester:** 16 Credits
- CSCI 1100 Using Information Technology (3 cr.)
- CSCI 1250 Introduction to Computer Science I (4 cr.)
- CSCI 1510 Student in University (3 cr.)
- CSCI 1900 Math for Computer Science (3 cr.)
- ENGL 1010 Critical Reading & Expository Writing (3 cr.)

**Freshman Year Second Semester:** 16 Credits
- CSCI 1260 Introduction to Computer Science II (4 cr.)
- CSCI 1710 Web Design and Development (3 cr.)
- COMM 2055 Argumentation and Debate (3 cr.)
- ENGL 1020 Critical Thinking and Argumentation (3 cr.)
- MATH 1530 Probability & Statistics – Noncalculus (3 cr.)

**Sophomore Year First Semester:** 16 Credits
- CSCI 1400 PC Set-up and Maintenance (1 credit)
- CSCI 2020 Fundamentals of Database (3 cr.)
- CSCI 2150 Computer Organization (3 cr.)
- CSCI 2200 UNIX Fundamentals (3 cr.)
- Humanities Course (3 cr.)
- Free Elective (3 cr.)

**Sophomore Year Second Semester:** 16 Credits
- CSCI 2910 Server Side Web Programming (4 cr.)
- CSCI 3400 Networking Fundamentals (3 cr.)
- CSCI Approved Major Elective (3 cr.)
- Social/Behavioral Sciences (3 cr.)
- Natural Science Sequence 1st Course (4 cr.)

**Junior Year First Semester:** 16 Credits
- CSCI 3020 Database Advanced Topics (3 cr.)
- CSCI 3720 Fund. of Business Info Systems (3 cr.)
- CSCI 3500 Information Security and Assurance (3 cr.)
- Free Elective (3 cr.)
- Natural Science Sequence 1st Course (4 cr.)

**Junior Year Second Semester:** 14 Credits
- CSCI 3250 Software Engineering I (3 cr.)
- CSCI 3110 Advanced Topics in Web Development (3 cr.)
- Free Elective (1 credit)
- Social/Behavioral Sciences (3 cr.)
- Natural Science Sequence 2nd Course (4 cr.)

**Senior Year First Semester:** 15 Credits
- CSCI 3350 Software Engineering II (3 cr.)
- CSCI 4417 Introduction to System Administration (3 cr.)
- CSCI Approved Major Elective (3 cr.)
- Free Elective (3 cr.)
- Literature Course (3 cr.)

**Senior Year Second Semester:** 15 Credits
- CSCI 4800 Senior Project in Information Technology (3 cr.)
- CSCI 4927 Human Computer Interaction (3 cr.)
- CSCI 3000+ Major Elective (3 cr.)
- Fine Arts Course (3 cr.)
- History Course (3 cr.)
Computing Minor Requirements

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**Total Credit Hours:** 23 cr.

**Minor Suggested Course Sequence based on Interests**

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<th>Programming Interest</th>
<th>Networking &amp; Security Interest</th>
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<td>*Requires MATH 1910 &amp; 1920</td>
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<td>Special Topics Course (3)</td>
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