ETSU
Computer and Information Sciences
2005-2006 Undergraduate Student Advisement

Bachelor of Science Degree in Computer and Information Sciences with concentrations in:

Computer Science (CS);
Information Systems Science (IS); and
Information Technology (IT).

The three concentrations share a common core of computer and information science (CSCI) courses that provide a strong background in programming, design, computer organization, database management, networking, and software engineering. All concentrations require a probability and statistics course and a discrete mathematics course. The concentrations emphasize practical skills needed to succeed in careers in computer and information sciences, including technical skills, written and oral communication, project management, and teamwork. Graduates work throughout the region and nation, at highly competitive salaries and in a wide variety of industries. In addition, many of our graduates go on to further studies, including the department’s masters program. Each of the concentrations prepares students for careers in software development.

COMPUTER SCIENCE (CS) CONCENTRATION – The CS concentration supplements the CSCI core curriculum with courses in object-oriented programming and design, computer architecture, and operating systems. The concentration also requires 18 hours of mathematics, including the calculus sequence required of mathematics majors. This concentration is designed for students who wish to apply their knowledge in a scientific, engineering, or mathematical environment, or for those who plan graduate work in computer science or applied computational mathematics.

INFORMATION SYSTEMS SCIENCE (IS) CONCENTRATION – The IS concentration supplements the CSCI core curriculum with courses in object-oriented programming and design, web development, database, and system administration. The concentration also requires a minor in management or accountancy. This concentration is designed for students who wish to apply their knowledge in web development, database management, network administration, or within their minor area, and for those who plan graduate work in certain areas of management or information science.

INFORMATION TECHNOLOGY (IT) CONCENTRATION – The IT concentration supplements the CSCI core curriculum with courses in web development, visual programming, database, and system administration. Sufficient elective hours are built into the program to allow a student to minor in a related discipline. This concentration is designed for students who wish to apply their knowledge in web development, database management, network administration, and for those who plan graduate work in applied computer science or information technology.
GRADUATION REQUIREMENTS

To earn a Bachelor of Science degree in Computer & Information Sciences, you must:

- complete 124 semester hours;
- meet all requirements of the General Education core, including the General Education Proficiency Requirements (see below);
- meet all CSCI Common Core requirements;
- meet all CSCI requirements specific to your concentration (CS, IS, or IT);
- attain an overall grade point average of 2.5 or better;
- attain a grade point average 2.5 or better in all computer science courses; and
- achieve a grade of “C-” or better in all CSCI major requirements, including both common core and concentration specific-courses (with the exception of the natural science courses); and achieve a grade of “C-” or better in the required freshman English courses.

Proficiency/Intensive Course Requirements

WRITING  Students must complete a minimum of four writing-intensive (WI) courses. At least two of these courses must be in the student’s major or minor. At least two of the four courses must be at the 3000-4000 level.

ORAL COMMUNICATION  Students must complete a minimum of two oral communication intensive (OCI) courses. At least one of these courses must be in the student’s major or minor.

USING INFORMATION TECHNOLOGY  Students must demonstrate a working knowledge of word-processing, spreadsheets, electronic communication, and online searches during their first calendar year of enrollment or prior to accumulating 33 semester credits at ETSU. This requirement may be met by passing the UIT proficiency exam or by successfully completing CSCI 1100, Using Information Technology. Students may register to take the UIT proficiency exam at http://csciwww.etsu.edu/uit or by calling the Using Information Technology office at 423-439-6964. Registration for summer proficiency testing begins the first week in May. Once the UIT proficiency exam (or CSCI 1100) is successfully completed, students must complete a minimum of one using information technology-intensive (UITI) course in the student’s major or minor.

NOTE:  Transfer students with an associate degree or with 60 or more transferable semester hours are required to complete only two writing-intensive courses, one oral communication-intensive course, and one using information technology-intensive course.

ADVISEMENT REQUIRED FOR ALL CSCI MAJORS

Advisement is required for all CSCI majors, from the time they enter the major until graduation. CSCI majors must schedule a meeting with their assigned advisor prior to registering each semester. Only then will the “registration hold” be removed by the advisor so that the student may register.
2005-2006 General Education Requirements for CSCI Majors (41 credit hours)

**WRITING: 6 credits (both)**
- ENGL 1010 Crit. Reading & Exp. Writing (3)
- ENGL 1020 Crit. Thinking & Argument. (3)

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

**ORAL COMMUNICATION: 3 credits (select one)**
- SPCH 1300 General Speech [O]
- SPCH 2300 Public Speaking [O]
- SPCH 2320 Argumentation & Debate [O]

(Note: one Speech course cannot satisfy both the general education requirement and an oral-intensive requirement)

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

**FINE ARTS: 3 credits (select one)**
- ARTA 2010 Art History Survey I (3)
- ARTA 2020 Art History Survey II (3)
- MUSC 1030 Music Appreciation (3)
- MUSC 1035 History of Jazz (3)
- PEXS 3500 Dance as Human Exp. (3)
- THEA 1030 Intro. to the Theater (3)

**HUMANITIES: 3 credits (select one)**
- ENGL 3150 Literature, Ethics, and Values (3) [W]
- ENGL 3280 Mythology (3) [W]
- ENTC 3020 Technology and Society (3)
- HIST 1110 World Hist. & Civ. to 1500 (3)
- HIST 1120 World Hist. & Civ. since 1500 (3)
- HUMT 2310 Humanities I (to 1600) (3)
- HUMT 2320 Humanities II (1600 - ) (3)
- PHIL 1030 Self and World (3)
- PHIL 2020 Values and Society (3) [W]
- PHIL 2040 Philosophy as Conversation (3) [O]
- PHIL 2210 Intro. to Religion (3) [W]
- PHIL 2640 Science and the Mod. World (3)

**SOCIAL/BEHAVIORAL SCIENCES: 6 credits (select two)**
- GEOG 1012 Intro to Cultural Geog. (3)
- PSCI 1110 Political Life (3) [W][O]
- PSCI 1120 Intro to American Govt. (3)
- PSYC 1310 Intro to Psychology (3)
- SOAA 1020 Intro to Sociology (3)
- SOAA 1240 Intro. to Cultural Anthropology (3)
- SOAA 2020 Social Prob. and Human Val. (3) [W]
- SRVL 1020 Intro. to Service Learning (3)
- WMST 2010 Intro. to Women's Studies (3) [W]
- ECON 2210 Prin of Econ I (3) or ECON 1050 Econ & Soc (3)

**USING MATHEMATICS: 3 credits**
- MATH 1530 Probability and Statistics (3)

**NATURAL SCIENCES: 8 credits [select one of following sequences; note that these do not include sequences specifically intended for non-science majors: BIOL 1010/1011, BIOL 1020/1021, CHEM 1000, CHEM 1030, PHYS 1030]**
- BIOL 1110/1111 and BIOL 1120/1121 Biology for Science Majors Sequence
- CHEM 1110/1111 and CHEM 1120/1121 General Chemistry Sequence
- PHYS 2110 and PHYS 2120 Technical Physics I and II – Calculus Based
- GEOG 1110 and GEOG 1120 Earth Sci: Weather & Climate, Landforms & Processes
- GEOL 1040 and GEOL 1050 Physical and Historical Geology
- ASTR 1010 and ASTR 1020 Astronomy I and II
- HSCI 2010/2011 and HSCI 2020/2021 Anatomy & Physiology I and II

[W] writing intensive course; must complete four such courses including two within the major. At least two must be at the 3000/4000 level
[O] oral intensive course; must complete two such courses including one within the major.
Transfer students entering ETSU with 60 or more transferable hours must complete only half of the intensive requirements.
### Catalog Year 2005-2006

#### >>> Computer Science Concentration <<<

**Major Requirements**

<table>
<thead>
<tr>
<th>Common Core Courses (57 Hours)</th>
<th>Other Major Requirements (21 Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] CSCI 1510 Student in University (3) [W]</td>
<td>[ ] MATH 1530 Probability &amp; Statistics (3)</td>
</tr>
<tr>
<td>[ ] CSCI 1250 Intro to Comp. Sci. (4) [T]</td>
<td>[ ] CSCI 1900 Math for Comp. Sci. (3)</td>
</tr>
<tr>
<td>[ ] CSCI 1260 Intro to Comp. Sci. II (4)</td>
<td>[ ] MATH 1910 Calculus I (4)</td>
</tr>
<tr>
<td>[ ] CSCI 2150 Computer Organization (4)</td>
<td>[ ] MATH 1920 Calculus II (4)</td>
</tr>
<tr>
<td>[ ] CSCI 2160 Assembly Language (4)</td>
<td>[ ] MATH 2010 Linear Algebra (3)</td>
</tr>
<tr>
<td>[ ] CSCI 2210 Data Structures (4)</td>
<td>[ ] Science (4) ________</td>
</tr>
<tr>
<td>[ ] CSCI 2230 File Processing (4)</td>
<td>(one additional lab science)</td>
</tr>
<tr>
<td>[ ] CSCI 3250 Software Engineering I (3) [O]</td>
<td>[ ] Free Electives: (8 hours)</td>
</tr>
<tr>
<td>[ ] CSCI 3350 Software Engineering II (3) [W]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>[ ] CSCI 3400 Networking Fundamentals (3) [T]</td>
<td>[ ] [ ] [ ]</td>
</tr>
<tr>
<td>[ ] CSCI 4127 Database Mgmt. Systems I (3) [T]</td>
<td>[ ] Major Electives</td>
</tr>
<tr>
<td>[ ] CSCI 4717 Computer Architecture (3)</td>
<td><em>Of the four major electives required in the Computer</em></td>
</tr>
<tr>
<td>[ ] CSCI 4727 Operating Systems (3) [W]</td>
<td><em>Science concentration, at least one must be from</em></td>
</tr>
<tr>
<td>[ ] CSCI ______ major elective (3)</td>
<td><em>Category A. Courses required in a particular</em></td>
</tr>
<tr>
<td>[ ] CSCI ______ major elective (3)</td>
<td><em>concentration may not also be counted as a major</em></td>
</tr>
<tr>
<td>[ ] CSCI ______ major elective (3)</td>
<td><em>elective in that concentration.</em></td>
</tr>
<tr>
<td>[ ] CSCI ______ major elective (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Major Electives Category A:** CSCI 1250, CSCI 1260, CSCI 1270, CSCI 2160, CSCI 3800, CSCI 4910 (with departmental approval as Category A), or CSCI 4956/4957 (with departmental approval as Category A)

**Major Electives Category B:** CSCI 1710, CSCI 2210, CSCI 2230, CSCI 2910, CSCI 4157, CSCI 4217, CSCI 4227, CSCI 4317, CSCI 4417, CSCI 4517, CSCI 4527, CSCI 4717, CSCI 4727, CSCI 4800, CSCI 4857, MATH 4257, MATH 4267, CSCI 4910 (with departmental approval as Category B), or CSCI 4956/4957 (with departmental approval as Category B)

- If, for any reason, you do not take or do not pass CSCI 1510, you must take another approved CSCI major elective in its place.
Catalog Year 2005-2006
Prerequisite Tree – Required Major Courses
Computer Science (CS) Concentration
Department of Computer and Information Sciences

CSCI 1100 Using Info Technology
CSCI 1250 Intro to CSci I
CSCI 1510 Student in University
CSCI 1260 Intro to CSci II
CSCI 2150 Computer Organization
CSCI 1100 Using Info Technology
CSCI 1250 Intro to CSci I
CSCI 1510 Student in University
CSCI 2210 Data Structures
CSCI 2160 Assembly Lang
CSCI 3250 Software Engineering I
CSCI 2210 Data Structures
CSCI 2150 Computer Organization
CSCI 3400 Networking Fundamentals
CSCI 2230 File Processing
CSCI 2160 Assembly Lang
CSCI 3350 Software Engineering II
CSCI 4127 DB Mgmt. Systems I
CSCI 4250 Software Engineering I
CSCI 4717 Computer Arch.
CSCI 4727 Operating Systems
Catalog Year 2005-2006

>>> Information Technology Concentration <<<

Major Requirements

Common Core Courses (59 Hours)
- CSCI 1510 Student in University (3) [W]
- CSCI 1710 WWW – Design & Creation (3)
- CSCI 1800 Visual Programming I (4)
- CSCI 2150 Computer Organization (4)
- CSCI 2235 Intro to UNIX (1)
- CSCI 2800 Visual Prog – Adv Concepts (4)
- CSCI 2910 Client & Server Side Prog (4)
- CSCI 3250 Software Engineering I (3) [O]
- CSCI 3350 Software Engineering II (3) [W]
- CSCI 3400 Networking Fundamentals (3) [T]
- CSCI 4127 Database Mgmt. Systems I (3) [T]
- CSCI 4217 Ethical Issues in Computing (3) [W]
- CSCI 4227 Database Mgmt. Systems II (3)
- CSCI 4417 Intro to System Administration (3)
- CSCI 4800 Senior Project in IT (3)
- CSCI ______ major elective (3)
- CSCI ______ major elective (3)
- CSCI 3xxx/4xxx ______ major elective (3)
- CSCI 3xxx/4xxx ______ major elective (3).

Other Major Requirements (6 Hours)
- MATH 1530 Probability & Statistics (3)
- CSCI 1900 Math for Comp. Sci. (3)

Free Electives: (21 Hours)
- [Any courses you care to take.]
- CSCI ______ major elective (3)
- CSCI ______ major elective (3)
- CSCI 3xxx/4xxx ______ major elective (3)
- CSCI 3xxx/4xxx ______ major elective (3).

Major Electives

Of the four major electives required in the Information Technology concentration, at least one must be from Category A, and at least 6 hours at the 3000/4000 level. Courses required in a particular concentration may not also be counted as a major elective in that concentration

Major Electives Category A: CSCI 1250, CSCI 1260, CSCI 1270, CSCI 2160, CSCI 3800, CSCI 4910 (with departmental approval as Category A), or CSCI 4956/4957 (with departmental approval as Category A)

Major Electives Category B: CSCI 1710, CSCI 2210, CSCI 2230, CSCI 2910, CSCI 4157, CSCI 4217, CSCI 4227, CSCI 4317, CSCI 4417, CSCI 4517, CSCI 4527, CSCI 4717, CSCI 4727, CSCI 4800, CSCI 4857, MATH 4257, MATH 4267, CSCI 4910 (with departmental approval as Category B), or CSCI 4956/4957 (with departmental approval as Category B)

- If, for any reason, you do not take or do not pass CSCI 1510, you must take another approved 3 hour CSCI course in its place.
Catalog Year 2005-2006
Prerequisite Tree – Required Major Courses
Information Technology (IT) Concentration
Department of Computer and Information Sciences

CSCI 1100 Using Info Technology

CSCI 1800 Visual Prog I

CSCI 2150 Computer Organization

CSCI 2235 Intro to Unix

CSCI 2300 Network Fundamentals

CSCI 4417 System Administration

CSCI 4127 DB Mgmt. Systems I

CSCI 4227 DB Mgmt. Systems II

CSCI 4800 Senior Capstone

CSCI 3250 Software Engineering I

CSCI 4127 DB Mgmt. Systems I

CSCI 3350 Software Engineering II

CSCI 4217 Ethical Issues
Catalog Year 2005-2006
>>> Information Systems Science Concentration <<<

Major Requirements

Common Core Courses (51 Hours)

☐ CSCI 1510 Student in University (3) [W]
☐ CSCI 1250 Intro to Comp. Sci. (4) [T]
☐ CSCI 1260 Intro to Comp. Sci. II (4)
☐ CSCI 1710 WWW – Design & Creation (3)
☐ CSCI 2150 Computer Organization (4)
☐ CSCI 2210 Data Structures (4)
☐ CSCI 2235 Intro to UNIX (1)
☐ CSCI 2910 Client & Server Side Prog (4)
☐ CSCI 3250 Software Engineering I (3) [O]
☐ CSCI 3350 Software Engineering II (3) [W]
☐ CSCI 3400 Networking Fundamentals (3) [T]
☐ CSCI 4127 Database Mgmt. Systems I (3) [T]
☐ CSCI 4227 Database Mgmt. Systems II (3)
☐ CSCI 4417 Intro to System Administration (3)
☐ CSCI ____ major elective, Category A (3)
☐ CSCI ____ major elective, Category B (3)

One major elective must be from category A.

Other Major Requirements (9-10 Hours)

☐ MATH 1530 Probability & Statistics (3)
☐ MATH 1840 Analytic Geom & Diff Calc (3)
   or MATH 1910 Calculus I (4)
☐ CSCI 1900 Math for Comp. Sci. (3)

Information Systems Emphasis (18 Hours)

☐ CSCI 2235 Intro to UNIX (1)
☐ CSCI 2910 Client & Server Side Prog (4)
☐ CSCI 3250 Software Engineering I (3) [O]
☐ CSCI 3350 Software Engineering II (3) [W]
☐ CSCI 3400 Networking Fundamentals (3) [T]
☐ CSCI 4127 Database Mgmt. Systems I (3) [T]
☐ CSCI 4227 Database Mgmt. Systems II (3)
☐ CSCI 4417 Intro to System Administration (3)
☐ CSCI ____ major elective, Category A (3)
☐ CSCI ____ major elective, Category B (3)

Free Electives: (7-8 hours)

☐ CSCI ____ major elective, Category A (3)
☐ CSCI ____ major elective, Category B (3)

Major Electives Category A: CSCI 1250, CSCI 1260, CSCI 1270, CSCI 2160, CSCI 3800, CSCI 4910 (with departmental approval as Category A), or CSCI 4956/4957 (with departmental approval as Category A)

Major Electives Category B: CSCI 1710, CSCI 2210, CSCI 2230, CSCI 2910, CSCI 4157, CSCI 4217, CSCI 4227, CSCI 4317, CSCI 4417, CSCI 4517, CSCI 4527, CSCI 4717, CSCI 4727, CSCI 4800, CSCI 4857, MATH 4257, MATH 4267, CSCI 4910 (with departmental approval as Category B), or CSCI 4956/4957 (with departmental approval as Category B)

Information Systems Emphasis Areas

All students in the Information Systems Science Concentration must complete one of the following two emphases. These are intended to prepare the student to "function effectively as an IS professional" in a specific business area. Each of the following sequences will provide depth in the particular area and as well as satisfying the requirements for a minor in the area.

<table>
<thead>
<tr>
<th>Management Emphasis</th>
<th>Accountancy Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2210* - Principles of Economics I (3)</td>
<td>ACCT 2010 - Principles of Accounting I (3)</td>
</tr>
<tr>
<td>ACCT 2010 - Principles of Accounting I (3)</td>
<td>ACCT 2020 - Principles of Accounting II (3)</td>
</tr>
<tr>
<td>MGMT 3000 - Organizational Behavior &amp; Mgmt (3)</td>
<td>ACCT 3010 - Financial Accounting I (3)</td>
</tr>
<tr>
<td>MGMT 4010 - Advanced Organizational Behavior (3)</td>
<td>ACCT 3020 - Financial Accounting II (3)</td>
</tr>
<tr>
<td>MGMT 4020 - Organizational Theory &amp; Dev (3)</td>
<td>ACCT 3110 - Management Accountancy (3)</td>
</tr>
<tr>
<td>Two approved MGMT elective (6)</td>
<td>ACCT 4310 - Accounting Information Sys (3)</td>
</tr>
</tbody>
</table>

* also satisfies a General Education Core requirement

- If, for any reason, you do not take or do not pass CSCI 1510, you must take another approved CSCI major elective in its place.
# CATALOG YEAR 2005-2006

## SUGGESTED 4-YEAR SCHEDULE
### COMPUTER SCIENCE CONCENTRATION

#### FRESHMAN YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communication (SPCH 1300, 2300, or 2320)*</td>
<td>CSCI 1260 Intro to Computer Science II</td>
</tr>
<tr>
<td>CSCI 1510 Student in University</td>
<td>CSCI 2150 Computer Organization</td>
</tr>
<tr>
<td>CSCI 1250 Intro to Computer Science I</td>
<td>MATH 1910 Calculus I</td>
</tr>
<tr>
<td>ENGL 1010 Crit. Reading &amp; Exp. Writing</td>
<td>ENGL 1020 Critical Thinking &amp; Arg</td>
</tr>
<tr>
<td>CSCI 1900 Math for Comp. Sci.</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

* If the UIT proficiency exam is not passed, CSCI 1100 should be taken instead of an Oral Communication course during the first semester. The Oral Communication course should be taken during the second semester schedule.

#### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 2210 Data Structures</td>
<td>CSCI 2230 File Processing</td>
</tr>
<tr>
<td>CSCI 2160 Assembly Language Prog</td>
<td>CSCI 3400 Network Fundamentals</td>
</tr>
<tr>
<td>MATH 1920 Calculus II</td>
<td>HIST 2020 U.S. Since 1877</td>
</tr>
<tr>
<td>Social/Behaviorial Science option</td>
<td>Literature option</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

#### JUNIOR YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 4127 Database Mgmt. Systems I</td>
<td>CSCI 3350 Software Engineering II</td>
</tr>
<tr>
<td>CSCI 3250 Software Engineering I</td>
<td>CSCI major elective</td>
</tr>
<tr>
<td>MATH 2010 Linear Algebra</td>
<td>Natural science (2nd of 2-semester sequence)</td>
</tr>
<tr>
<td>Natural science (first of 2-semester sequence)</td>
<td>Humanities</td>
</tr>
<tr>
<td>Social/Behaviorial Science option</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

#### SENIOR YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 4717 Computer Architecture</td>
<td>CSCI 4727 Operating Systems</td>
</tr>
<tr>
<td>CSCI major elective</td>
<td>CSCI major elective</td>
</tr>
<tr>
<td>CSCI major elective</td>
<td>Fine Arts option</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Free elective</td>
</tr>
<tr>
<td>Free elective</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>
FRESHMAN YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communication (SPCH 1300,2300,or 2320)*</td>
<td>CSCI 1800 Visual Programming I</td>
</tr>
<tr>
<td>CSCI 1510 Student in University</td>
<td>MATH 1530 Prob. &amp; Statistics</td>
</tr>
<tr>
<td>CSCI 1710 WWW Design and Creation</td>
<td>ENGL 1020 Critical Thinking &amp; Arg</td>
</tr>
<tr>
<td>ENGL 1010 Crit. Reading &amp; Exp. Writing</td>
<td>Humanities option</td>
</tr>
<tr>
<td>CSCI 1900 Math for Comp. Sci.</td>
<td>Social/Behavioral Science option</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 2150 Computer Organization</td>
<td>CSCI 2910 Client &amp; Server Side Prog</td>
</tr>
<tr>
<td>CSCI 2235 Intro to UNIX</td>
<td>CSCI 3400 Network Fundamentals</td>
</tr>
<tr>
<td>CSCI 2800 Visual Prog – Advanced Concepts</td>
<td>HIST 2020 U.S. Since 1877</td>
</tr>
<tr>
<td>HIST 2010 U.S. to 1877</td>
<td>Natural science (2nd of 2-semester sequence)</td>
</tr>
<tr>
<td>Natural science (first of 2-semester sequence)</td>
<td>Literature option</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

JUNIOR YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 4127 Database Mgmt. Systems I</td>
<td>CSCI 3350 Software Engineering II</td>
</tr>
<tr>
<td>CSCI 3250 Software Engineering I</td>
<td>CSCI 4227 Database Mgmt. Systems II</td>
</tr>
<tr>
<td>CSCI 4417 Systems Administration</td>
<td>CSCI major elective</td>
</tr>
<tr>
<td>Fine Arts option</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Social/Behavioral Science option</td>
<td>Free Elective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

SENIOR YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 4217 Ethical Issues in Computing</td>
<td>CSCI 4800 Senior Project in IT</td>
</tr>
<tr>
<td>CSCI major elective</td>
<td>CSCI major elective (3000/4000 level)</td>
</tr>
<tr>
<td>CSCI major elective (3000/4000 level)</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Free elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Free elective</td>
<td>Free Elective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

* If the UIT proficiency exam is not passed, CSCI 1100 should be taken instead of an Oral Communication course during the first semester. The Oral Communication course should be taken during the second semester schedule.
# Catalog Year 2005-2006
## Suggested 4-Year Schedule
### Information Systems Science Concentration

#### Freshman Year

**First Semester**
- Oral Communication (SPCH 1300, 2300, or 2320)*... 3
- CSCI 1510 Student in University .................. 3
- CSCI 1250 Intro to Computer Science I ............ 4
- ENGL 1010 Crit. Reading & Exp. Writing .......... 3
- CSCI 1900 Math for Comp. Sci. ..................... 3

**Second Semester**
- CSCI 1260 Intro to Computer Science II ........... 4
- CSCI 2150 Computer Organization ................. 4
- ENGL 1020 Critical Thinking & Arg ............... 3
- MATH 1840 (Analytic Geom & Diff Calculus) or
  MATH 1910 Calculus I 3 - 4


#### Sophomore Year

**First Semester**
- CSCI 2210 Data Structures ......................... 4
- CSCI 1710 WWW Design & Creation ................. 3
- MATH 1530 Probability & Statistics .............. 3
- HIST 2010 U.S. to 1877 .......................... 3
- Social/Behaviorial Science option ............... 3

**Second Semester**
- CSCI 2235 Introduction to UNIX ................... 1
- CSCI 3400 Network Fundamentals .................. 3
- CSCI 2910 Client & Server-Side Prog ............ 4
- HIST 2020 U.S. Since 1877 ........................ 3
- Social/Behaviorial Science option ............... 3
- Literature option .................................. 3

#### Junior Year

**First Semester**
- CSCI 4217 Database Mgmt. Systems I ............. 3
- CSCI 3250 Software Engineering I ................ 3
- Natural science (first of 2-semester sequence) 4
- Humanities option ............................... 3
- Course from Info Systems Area of Emphasis .... 3

**Second Semester**
- CSCI 3350 Software Engineering II ............... 3
- CSCI 4227 Database Mgmt. Systems II .......... 3
- Natural science (2nd of 2-semester sequence) 4
- Course from Info Systems Area of Emphasis .... 3
- Free Elective .................................... 3

#### Senior Year

**First Semester**
- CSCI 4417 System Administration .................. 3
- CSCI major elective ................................ 3
- Course from Info Systems Area of Emphasis .... 3
- Course from Info Systems Area of Emphasis .... 3
- Free elective ..................................... 3

**Second Semester**
- CSCI major elective ................................ 3
- Fine Arts option .................................. 3
- Course from Info Systems Area of Emphasis .... 3
- Course from Info Systems Area of Emphasis .... 3
- Free elective ..................................... 1-2


* If the UIT proficiency exam is not passed, CSCI 1100 should be taken instead of an Oral Communication course during the first semester. The Oral Communication course should be taken during the second semester schedule.
CONCENTRATION REQUIREMENTS FOR MAJOR ELECTIVES

CS: 4, including at least 1 from Category A and at least 1 from Category B
IS: 2, including at least 1 from Category A and at least 1 from Category B
IT: 4 (2 lower and 2 upper division); at least 1 from Category A and at least 1 from Category B

Category A - Programming Languages
- CSCI 1250 - Intro to Computer Science I
- CSCI 1260 - Intro to Computer Science II
- CSCI 1270 - Business Oriented Programming
- CSCI 2160 – Assembly Language
- CSCI 3800 – Visual Programming for Programmers
- CSCI 4910 - Selected Topics (related to prog languages)
- CSCI 4956/4957 - Special Topics (see below)

Category B - Advanced Topics
- CSCI 1710 – WWW- Design & Creation
- CSCI 2210 – Data Structures
- CSCI 2230 – File Processing
- CSCI 2910 – Client & Server Side Prog
- CSCI 4157 - Interactive Graphics
- CSCI 4217 - Ethical Issues in Computing
- CSCI 4227 – Advanced Database Systems
- CSCI 4317 – Law and the Internet
- CSCI 4417 – System Administration
- CSCI 4517 – Essentials of Multi-Media
- CSCI 4527 – Comp-Based Authoring Sys
- CSCI 4717 – Computer Architecture
- CSCI 4727 – Operating Systems
- CSCI 4800 – Senior Project in IT
- CSCI 4857 – User Interface Programming
- MATH 4257 - Numerical Analysis
- MATH 4267 - Numerical Linear Algebra
- CSCI 4910 - Selected Topics (non language)
- CSCI 4956/4957 - Special Topics (see below)

CSCI 4956/4957 SPECIAL TOPICS

<table>
<thead>
<tr>
<th>Course</th>
<th>Category</th>
<th>Level</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Assurance</td>
<td>-</td>
<td>-</td>
<td>not for CSCI credit</td>
</tr>
<tr>
<td>Comp Sci/Sci Fiction</td>
<td>B</td>
<td>lower</td>
<td>-</td>
</tr>
<tr>
<td>Home/Small Bus Automation</td>
<td>B</td>
<td>upper</td>
<td>2150</td>
</tr>
<tr>
<td>Intro to Comp Systems &amp; Forensics</td>
<td>B</td>
<td>lower</td>
<td>2150</td>
</tr>
<tr>
<td>PDA Programming</td>
<td>A</td>
<td>upper</td>
<td>2800 or 1260</td>
</tr>
<tr>
<td>Embedded Systems</td>
<td>B</td>
<td>upper</td>
<td>2210 or 2910</td>
</tr>
<tr>
<td>Intro to Java</td>
<td>A</td>
<td>upper</td>
<td>2210 or 2910</td>
</tr>
<tr>
<td>Advanced Java</td>
<td>A</td>
<td>upper</td>
<td>Intro to Java</td>
</tr>
<tr>
<td>Intro to C# and .NET Framework</td>
<td>A</td>
<td>upper</td>
<td>2210 or 2910</td>
</tr>
<tr>
<td>Artificial Intelligence</td>
<td>B</td>
<td>upper</td>
<td>2210 or 2910</td>
</tr>
<tr>
<td>Web Prog Using PHP &amp; MySQL</td>
<td>A</td>
<td>upper</td>
<td>2210 or 2910</td>
</tr>
<tr>
<td>System &amp; Network Security</td>
<td>B</td>
<td>upper</td>
<td>4417</td>
</tr>
</tbody>
</table>

Occasionally a course outside CSCI which includes a substantial component related to the student’s concentration substitute for a CSCI major elective. These are handled on a case-by-case basis, requiring departmental approval. Now that we’re offering sufficient major electives for all concentrations on a regular basis, we should be very selective in approving courses outside the department. Some courses that have been approved at least once in the past are DIGM 2821 (previously ENTC 3690) – Desktop Publishing, GEOG 4217 – GIS, GEOG 4317 – Adv GIS.
**Catalog Year 2005-2006**  
**Minor Requirements**

### Computer Science/Information Science (CS/IS) minor track (27 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1250</td>
<td>Introduction to Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 1260</td>
<td>Introduction to Computer Science II</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 2150</td>
<td>Computer Organization</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 2210</td>
<td>Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>CSCI ____</td>
<td>Approved CSCI major electives, including at least 6 hours at 3000 level or above; CSCI 1100, 110x, and 1510 may not be included</td>
<td>11</td>
</tr>
</tbody>
</table>

NOTE: A “C-” or better is required in each of the courses taken to satisfy the requirements of the minor.

### Information Technology (IT) minor track (27 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1710</td>
<td>World Wide Web - Design and Creation</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 1800</td>
<td>Visual Programming Design With Applications</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 2150</td>
<td>Computer Organization</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 2800</td>
<td>Visual Programming - Advanced Concepts</td>
<td>4</td>
</tr>
<tr>
<td>CSCI 2910</td>
<td>Client &amp; Server Side Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSCI ____</td>
<td>Approved CSCI major electives, including at least 6 hours at 3000 level or above; CSCI 1100, 110x, and 1510 may not be included</td>
<td>9</td>
</tr>
</tbody>
</table>

NOTE: A “C-” or better is required in each of the courses taken to satisfy the requirements of the minor.
Advisors to all new CSCI majors, including transfers:
David Blair         Rebecca Loyd
Office: 214 Gilbreath    Office: 107 Gilbreath
Phone: (423) 439-5609    Phone: (423) 439-7413
e-mail: blaird@etsu.edu   e-mail: loydr@etsu.edu

Department chairperson
Terry Countermine
Office: 213 Gilbreath
Phone: (423) 439-8416
e-mail: counter@etsu.edu

Executive aide
Cathy McGinnis
Office: 213 Gilbreath
Phone: (423) 439-5332
e-mail: mcginnis@etsu.edu

Department Secretary
Amy Deakins
Office: 214 Gilbreath
Phone: (423) 439-5328
e-mail: deakins@etsu.edu