INFORMATION TECHNOLOGY, INTERDISCIPLINARY

Degree: Bachelor of Science
Specializations: Bioinformation, Computer Technology, Digital Enterprise, Digital Media, e-Learning Support Systems
Coordinator: M. Lockhart

Building 79, Room 196B
(850) 474-2542
il@uwf.edu

Semester Hours Required for Degree: 120

The Interdisciplinary Information Technology (IIT) degree is a cooperative effort among all three colleges at UWF. Students complete a set of prerequisites, a common core, and courses from one of five IIT specializations: Bioinformation, Computer Technology, Digital Enterprise, Digital Media, or e-Learning. Each track includes a Minor or a Certificate and a senior capstone experience.

PROGRAM REQUIREMENTS

In addition to general University requirements, students seeking the B.S. in Interdisciplinary Information Technology must meet the requirements listed below.

Students should consult with their academic advisor for courses which may satisfy both the General Studies requirements and common prerequisites.

Course descriptions are listed alphabetically by prefix in the back of this Catalog.

BIOINFORMATION SPECIALIZATION

The Bioinformation Specialization is a collaborative effort between the Departments of Biology and Computer Science. The purpose of this specialization is to provide students with sufficient training in both fields to allow them to enter the rapidly growing market for personnel capable of storing, extracting, organizing, analyzing, interpreting, and utilizing the increasing mass of biological data. The skills provided to students within this specialization will address the major challenge of utilizing the immense storehouse of biological and medical data to solve problems and develop new products for the biomedical, pharmaceutical, and biotechnology industries. For further information about this specialization, contact the Department of Biology at (850) 474-2885 or biology@uwf.edu.

General Studies (36 sh)

For additional information see the General Studies section of this Catalog.

Common Prerequisites (40 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. Courses in brackets indicate substitutes from Florida public community/junior colleges and universities.

Core Program Common Prerequisites (24 sh)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGS 2570</td>
<td>Personal Computer Applications ...............</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2253</td>
<td>Programming Using Java ........................</td>
<td>3</td>
</tr>
<tr>
<td>CGS 2334</td>
<td>Programming Using C++ ..........................</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1140</td>
<td>Precalculus Algebra ..................................</td>
<td>3</td>
</tr>
<tr>
<td>PHI 2603</td>
<td>Ethics in Contemporary Society ...........</td>
<td>3</td>
</tr>
<tr>
<td>STA 2012</td>
<td>General Psychology ................................</td>
<td>3</td>
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</table>

Additional Bioinformation Common Prerequisites (16 sh)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 1140</td>
<td>Precalculus Algebra ..................................</td>
<td>3</td>
</tr>
<tr>
<td>MAC 2131/L</td>
<td>Cell Biology/Lab ................................</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose one:

- BOT 2010/L General Botany/Lab ....................... 4
- ZOO 1010/L General Zoology/Lab ....................... 4

Lower Division Electives (0-6 sh)

Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

Major (51 sh)

Major Courses are generally those offered by the major department. They may consist of specified courses, choices from a list of courses, or choices from specified course prefixes.

Interdisciplinary Information Technology Common Core (15-16 sh)

- CGS 3283 Networking Principles .................. 3
- CGS 3604 Applications of Information Technology 3
- COP 4710 Database Systems ....................... 3
- GEB 3032 Business Foundations for Non-Business Majors 3

* e-Learning Systems Support Specialization students should take EME 4622 (4 sh) instead of CGS 3283

Choose One Writing Course:

- ENC 3240 Technical Writing .................................. 3
- ENC 3250 Professional Writing .......................... 3
- GEB 3212 Writing For Business: Theory and Practice 3

Bioinformation Specialization Courses (36 sh)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 4434</td>
<td>Introduction to Bioinformatics ..............</td>
<td>3</td>
</tr>
<tr>
<td>CAP 4401</td>
<td>Introduction to Digital Image Processing .......</td>
<td>3</td>
</tr>
<tr>
<td>CDA 3100</td>
<td>Microprocessor Systems ..........................</td>
<td>3</td>
</tr>
<tr>
<td>IOS 3020</td>
<td>Introduction to CIS ................................</td>
<td>3</td>
</tr>
<tr>
<td>COT 3100</td>
<td>Applications of Discrete Structures ........</td>
<td>3</td>
</tr>
<tr>
<td>MCB 3020/L</td>
<td>Microbiology/Lab ................................</td>
<td>4</td>
</tr>
<tr>
<td>PCB 3063/L</td>
<td>Genetics/Lab ................................</td>
<td>4</td>
</tr>
<tr>
<td>PCB 4043/L</td>
<td>Ecology/Lab ....................................</td>
<td>4</td>
</tr>
<tr>
<td>PCB 4970</td>
<td>Interdisciplinary Senior Research Project ....</td>
<td>3</td>
</tr>
<tr>
<td>STA 4173</td>
<td>Biostatistics ....................................</td>
<td>3</td>
</tr>
<tr>
<td>3000/4000 level advisor-approved elective ..........</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Major-Related (4 sh)

MAC 2311 Analytic Geometry and Calculus I ......................... 4

Upper Division Electives (5 sh)
Sufficient 3000/4000 level electives to meet UWF’s requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

**COMPUTER TECHNOLOGY SPECIALIZATION**

The Computer Technology Specialization provides a firm foundation of basic course work in programming principles, database concepts, and general topics in computer science. Graduates of this program will have a strong foundation in computer skills required for most entry-level positions in database administration, software development, and systems analysis. For further information about this specialization, contact the Department of Computer Science at (850) 474-2542 or csadvisor@cs.uwf.edu.

General Studies (36 sh)
For additional information see the General Studies section of this Catalog.

Common Prerequisites (24 sh)
State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. Courses in brackets indicate substitutes from Florida public community/junior colleges and universities.

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<thead>
<tr>
<th>Course</th>
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<th>Credit</th>
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<td>CGS 2570</td>
<td>Personal Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>COP 2253</td>
<td>Programming Using Java</td>
<td>3</td>
</tr>
<tr>
<td>COP 2334</td>
<td>Programming Using C++</td>
<td>3</td>
</tr>
<tr>
<td>+ ECO 2013</td>
<td>Principles of Economics Macro</td>
<td>3</td>
</tr>
<tr>
<td>+ MAC 1140</td>
<td>Precalculus Algebra</td>
<td>3</td>
</tr>
<tr>
<td>+ PHI 2603</td>
<td>Ethics in Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>+ PSY 2012</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>+ STA 2023</td>
<td>Elements of Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

* Indicates common prerequisites which can be used to satisfy General Studies requirements.

Lower Division Electives (0-15 sh)
Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

**DIGITAL ENTERPRISE SPECIALIZATION**

The Digital Enterprise specialization provides applied study of Internet programming concepts, networking principles, website graphics and design development, and digital commerce technology. This curriculum features practical, hands-on experience with cutting-edge Internet computer applications. Successful graduates of the program will be prepared for high tech positions such as Internet programmer, webmaster, and Internet commerce technology analyst. Capstone experience is the Digital Enterprise Senior Project. Degree includes a minor in e-Business. For further information concerning this specialization, contact the Department of Marketing and Economics at (850) 474-2542 or digital@uwf.edu.

No more than 30 semester hours of College of Business prefix courses may be applied to this degree.
General Studies (36 sh)
For additional information see the General Studies section of this Catalog.

Common Prerequisites (24 sh)
Same as Computer Technology Specialization

Lower Division Electives (0-15 sh)
Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

Major (48 sh)
Interdisciplinary Information Technology Common Core
(15-16 sh)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGS 3283</td>
<td>Networking Principles</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3604</td>
<td>Applications of Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>COP 4710</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEB 3032</td>
<td>Business Foundations for Non-Business Majors</td>
<td>3</td>
</tr>
</tbody>
</table>

* Digital Media students may take either CGS 3283 or EME 4622 (4 sh) instead of CGS 3283.

Choose One Writing Course:
- ENC 3240 Technical Writing 3
- ENC 3250 Professional Writing 3
- GEB 3212 Writing For Business: Theory and Practice 3

Digital Enterprise Specialization Courses (27 sh)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 3021</td>
<td>Science of Computing</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4340</td>
<td>Software Methods for Remote Databases</td>
<td>3</td>
</tr>
<tr>
<td>GEB 4935</td>
<td>Digital Enterprise Senior Capstone</td>
<td>3</td>
</tr>
<tr>
<td>ISM 3011</td>
<td>e-Business Systems Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MAN 3025</td>
<td>Management Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MAR 3023</td>
<td>Marketing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MAR 4721</td>
<td>Internet Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>MAR 4728</td>
<td>High Tech Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MAR 4880</td>
<td>Internet Marketing Management</td>
<td>3</td>
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</table>

Digital Enterprise Electives (Choose 6 sh)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2600C</td>
<td>Computer Imaging I</td>
<td>3</td>
</tr>
<tr>
<td>ART 3610C</td>
<td>Computer Imaging II: Image Manipulation</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3172</td>
<td>Web Design for e-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3523</td>
<td>Computer Graphics Applications</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3823</td>
<td>Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3875</td>
<td>Multimedia Systems</td>
<td>3</td>
</tr>
<tr>
<td>COP 3813</td>
<td>Internet Programming</td>
<td>3</td>
</tr>
<tr>
<td>COP 3835</td>
<td>Web Based Programming</td>
<td>3</td>
</tr>
<tr>
<td>EME 3402</td>
<td>Instructional Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Course offered 1-3 per semester

Major-Related (0 sh)

Upper Division Electives (12 sh)
Sufficient 3000/4000 level electives to meet UWF’s requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater. If GEB 3212 is included in the program, no courses from the College of Business may be taken as electives.

Lower Division Electives (0 sh)
Major (30 sh)
Interdisciplinary Information Technology Common Core
(15-16 sh)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CGS 3283</td>
<td>Networking Principles*</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3604</td>
<td>Applications of Information Technology</td>
<td>3</td>
</tr>
<tr>
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<td>Database Systems</td>
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</table>

* Digital Media students may take either CGS 3283 or EME 4622 (4 sh).

General Studies (36 sh)
For additional information see the General Studies section of this Catalog.

Common Prerequisites (42 sh)
State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. Courses in brackets indicate substitutes from Florida public community/junior colleges and universities.

Core Program Common Prerequisites (24 sh)

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<tr>
<td>PSY 2012</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>STA 2023</td>
<td>Elements of Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Digital Media Common Prerequisites (18 sh)

* Indicates common prerequisites which can be used to satisfy General Studies requirements.

Lower Division Electives (0 sh)
Major (30 sh)
Interdisciplinary Information Technology Common Core
(15-16 sh)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td>3</td>
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<tr>
<td>GEB 3032</td>
<td>Business Foundations for Non-Business Majors</td>
<td>3</td>
</tr>
</tbody>
</table>

* Digital Media students may take either CGS 3283 or EME 4622 (4 sh).
**CGS 3283 Networking Principles ........................................ 3**

**Major (35-36 sh)**
Students may use elective courses at any level (1000-4999) to meet semester hours in the lower division. Current UWF students sufficient 1000/2000 level electives to complete at least 60 lower division electives (0-15 sh)

**Upper Division Electives (15 sh)**
Sufficient 3000/4000 level electives to meet UWF’s requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/ 4000 level, whichever is greater.

**e-LEARNING SUPPORT SYSTEMS SPECIALIZATION**
The e-Learning Systems Support Specialization is an intensive professional development program for higher order skills in the design, implementation, and maintenance of network and telecommunications systems for training and education organizations. It provides an alternative path to the short term, time-sensitive, narrowly focused, application-specific skills training provided by commercial training concerns or community colleges in the form of a lengthier, more generalized, broad-ranging course of study. The program is highly technical without being too narrowly focused, and provides additional emphasis on developing strategies for the application of the technologies in innovative ways. Special attention is also devoted to development of planning and organizational skills required to implement and evolve complex systems as well as maintain them. For further information contact the Division of Engineering and Computer Technology at (850) 474-2300 or at trd@uwf.edu.

**General Studies (36 sh)**
For additional information see the General Studies section of this Catalog.

**Common Prerequisites (24 sh)**
Same as Computer Technology Specialization

**Lower Division Electives (0-15 sh)**
Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

**Major (35-36 sh)**
Interdisciplinary Information Technology Common Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGS 3283</td>
<td>Networking Principles</td>
<td>3</td>
</tr>
<tr>
<td>CGS 3604</td>
<td>Applications of Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>COP 4710</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEB 3032</td>
<td>Business Foundations for Non-Business Majors</td>
<td>3</td>
</tr>
</tbody>
</table>

* e-Learning Systems Support specialization students should take EME 4622 (4sh) instead of CGS 3283

**Upper Division Electives (12-13 sh)**
Sufficient 3000/4000 level electives to meet UWF’s requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/ 4000 level, whichever is greater.

**Choose One Writing Course:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 3240</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENC 3250</td>
<td>Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>GEB 3212</td>
<td>Writing For Business: Theory and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

**Digital Media Specialization Courses (15 sh)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 3610C</td>
<td>Computer Imaging II: Image Manipulation</td>
<td>3</td>
</tr>
<tr>
<td>ART 4618C</td>
<td>Digital Multimedia I</td>
<td>3</td>
</tr>
<tr>
<td>ART 4619C</td>
<td>Digital Multimedia II</td>
<td>3</td>
</tr>
<tr>
<td>ART 4630C</td>
<td>Artists Video</td>
<td>3</td>
</tr>
<tr>
<td>ART 4632</td>
<td>Digital Media Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major-Related (15 sh)**
Students in the Digital Media track will select a secondary area of specialization in one of four Communication Arts programs: telecommunications and film, advertising, public relations, or journalism. Courses used in fulfillment of this secondary area must have the prior approval of the advisor.

**Upper Division Electives (15 sh)**
Sufficient 3000/4000 level electives to meet UWF’s requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/ 4000 level, whichever is greater.

**e-Learning Specialization Courses (20 sh)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EME 3402</td>
<td>Instructional Technology</td>
<td>3</td>
</tr>
<tr>
<td>EME 4313</td>
<td>Multimedia Applications for e-Learning</td>
<td>3</td>
</tr>
<tr>
<td>EME 4454</td>
<td>Distance Educational Technologies</td>
<td>3</td>
</tr>
<tr>
<td>EME 4627</td>
<td>Education and Training Technology Support Systems</td>
<td>4</td>
</tr>
<tr>
<td>EME 4944</td>
<td>Internship/Practica in Technology</td>
<td>3</td>
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</table>

**Major-Related (12 sh)**

**Choose one option: (12 sh)**

**Systems and Planning Option**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ISM 3011</td>
<td>e-Business Systems Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ISM 4300</td>
<td>Systems Planning, Design &amp; Control</td>
<td>3</td>
</tr>
<tr>
<td>SPC 2016</td>
<td>Basic Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>SPC 3425</td>
<td>Group &amp; Team Communication</td>
<td>3</td>
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</table>

**Digital Media Option**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ART 2600C</td>
<td>Computer Imaging I</td>
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<tr>
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<td>Computer Imaging II: Image Manipulation</td>
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</tr>
<tr>
<td>ART 4618C</td>
<td>Digital Multimedia I</td>
<td>3</td>
</tr>
<tr>
<td>ART 4619C</td>
<td>Digital Multimedia II</td>
<td>3</td>
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</table>

**e-Business Option**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS 4340</td>
<td>Software Methods for Remote Databases</td>
<td>3</td>
</tr>
<tr>
<td>GEB 4134</td>
<td>Advanced e-Business: Business to Consumer</td>
<td>3</td>
</tr>
<tr>
<td>GEB 4135</td>
<td>Advanced e-Business: Business to Business</td>
<td>3</td>
</tr>
<tr>
<td>ISM 3011</td>
<td>e-Business Systems Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

**Upper Division Electives (12-13 sh)**
Sufficient 3000/4000 level electives to meet UWF’s requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/ 4000 level, whichever is greater.