



UNIVERSITY OF WASHINGTON  
**CREATING AND CHANGING UNDERGRADUATE  
 ACADEMIC PROGRAMS**

NOV 03 2014  
 OFFICE USE ONLY  
 Control #  
 TINST-20140408

After college/school/campus review, send a signed original and 1 copy to the Curriculum Office/FCAS, Box 355850.  
 For information about when and how to use this form: <http://depts.washington.edu/uwcr/1503instructions.pdf>

<b>College/Campus</b> UW Tacoma	<b>Department/Unit</b> Institute of Technology	<b>Date</b> April 8, 2014
<b>New Programs</b>		
<input type="checkbox"/> Leading to a Bachelor of ____ in ____ degree.		
<input type="checkbox"/> Leading to a Bachelor of ____ degree with a major in ____.		
<input type="checkbox"/> Leading to a ____ Option within the existing major in ____.		
<input type="checkbox"/> Leading to a minor in ____		
<b>Changes to Existing Programs</b>		
<input type="checkbox"/> New Admission Requirements for the Major in ____ within the Bachelor of ____.		
<input type="checkbox"/> Revised Admission Requirements for the Major in ____ within the Bachelor of ____.		
<input checked="" type="checkbox"/> Revised Program Requirements for the Major in <u>Information Technology program</u> within the Bachelor of <u>Science</u> .		
<input type="checkbox"/> Revised Requirements for the Option in ____ within the major in ____.		
<input type="checkbox"/> Revised Requirements for the Minor in ____.		
<b>Other Changes</b>		
<input type="checkbox"/> Change name of program from.		
<input type="checkbox"/> Change delivery method or location of program.		
<input type="checkbox"/> New or Revised Continuation Policy for ____.		
<input type="checkbox"/> New Honors Requirements for ____.		
<input type="checkbox"/> Eliminate program in ____.		

Proposed Effective Date: **Quarter:**  Autumn  Winter  Spring  Summer **Year: 20 15**

Contact Person: Bryan Goda	Phone: 253-692-4581	Email: <a href="mailto:godab@uw.edu">godab@uw.edu</a>	Box: 358426
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**EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE**

For new program, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts. (Use additional pages if necessary).

The purpose of all of the following changes is in preparation for ABET Accreditation for the Information Technology Program in 2016. In order for our program to be accredited, our students will need courses in Statistics (TMATH 110) and Discrete Math (TINFO 240, New Course). Our students also need more background in Technical Writing (TWRT 291) and Computer, Ethics and Society (TCSS 325). This will reduce the number of free electives by two, and reduce the required electives from six to four as compensation for the increased number of required courses. A reduction of two electives will result in a loss of some breadth in elective area, but the new required courses will produce a better background for the ITS student and better meet ABET requirements. We would like to add Health Informatics I, II as an elective choices because of work with Multicare and the growing need of applying information technology skills in Health Informatics. Most of our ITS students run out of electives to take, so this new program should decrease the number of Independent Studies and Directed Readings.

The affected department will be IAS (Math and Writing). Projected incoming classes will be approximately 50 students, though these students will be taking these new courses throughout the school year.

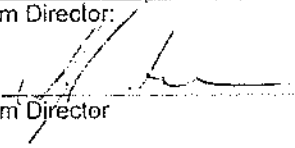
Meeting Minutes from May 2 2014. The meeting started at 1200 and ended at 1300. Present for the meeting were Marc Dupuis, Andrew Fry, Bryan Goda, Chuck Costeralla, Beth Jeffrey, Yan Bai, and David Ross.

1. The 1503 on adding 4 classes to the ITS Curriculum (TINFO 240, Math 110, TWRT 291, and

TCSS 325) were approved by a vote of 4 in favor, 0 against, 1 absent, and 0 abstentions.

**OTHER DEPARTMENTS AFFECTED**

List all departments/units/ or co-accredited programs affected by your new program or changes to your existing program and acquire the signature of the chair/director of each department/unit listed. Attach additional page(s) if necessary. \*See online instructions.

Department/Unit: IAS	Chair/Program Director: 	Date: 8/24/14
Department/Unit:	Chair/Program Director:	Date:

**CATALOG COPY**

Catalog Copy as currently written. Include only sections/paragraphs that would be changed if your request is approved. Please cross out or otherwise highlight any deletions.

## **Educational Objectives**

The Information Technology and Systems program will produce graduates who are able to achieve the following objectives:

- (a) Gain fundamental knowledge regarding technical concepts and practices in information technology and information systems.
- (b) Gain a broad background across fundamental areas of information technology along with a depth of understanding in a particular area of interest within the domain of information systems.
- (c) Demonstrate independent critical thinking and problem solving skills, with an ability to analyze the impact of technology on individuals, organizations and society including ethical, legal and public policy issues.
- (d) Collaborate in teams to accomplish a common goal by integrating personal initiative and group cooperation
- (e) Gain skills to communicate efficiently with technical and nontechnical people in the information technology field using written and oral communication as well as gain skills and strategies for facilitating group projects and activities in collaboration with peers.
- (f) Identify and evaluate current and emerging technologies and assess their applicability to address the users' needs and recognize the need for continued learning throughout their career.
- (g) Determine how information is inferred from data, and how decisions are made rationally on the basis of that information and ensure that data integrity and privacy is maintained as the organization processes information and acts on it.
- (h) Prepare for graduate studies in information security, information systems, telecommunications, and other related information technology areas.

### **Required T INFO Core Courses (45 credits)**

- TINFO 200 Programming II for Information Technology and Systems (5)
- TINFO 210 Foundations of Information Management (5)
- TINFO 220 Foundations of Human Computer Interaction for Information Technology & Systems (5)
- TINFO 230 Foundations of Web Design and Programming (5)
- TINFO 250 Foundations of Information Networking (5)
- TINFO 320 Hardware and Software Systems (5)
- TINFO 340 Foundations of Information Assurance (5)
- TINFO 360 Information Systems Analysis and Design (5)
- TINFO 370 Managing Technical Teams (5)

### **Required Internship and Senior Project (10 credits)**

- T INFO 497 (5)
- T INFO 482 (5)

### **Senior Electives (30 credits)**

### **Graduation Requirements**

To qualify for graduation with a Bachelor of Science degree in Information Technology and Systems from the University of Washington Tacoma, a student must:

- Be a matriculated Information Technology and Systems student in good academic standing with the University of Washington Tacoma.
- Complete 180 credits, of which at least 85 must be upper-division (300-400 level) course work.
- Complete a minimum of 45 credits of the required ITS courses in residence at the University of Washington Tacoma.
- Complete the final 45 credits in residence at the University of Washington Tacoma.

- (j) An ability to use and apply current technical concepts and practices in the core information technologies
- (k) An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems
- (l) An ability to effectively integrate IT-based solutions into the user environment
- (m) An understanding of best practices and standards and their application
- (n) An ability to assist in the creation of an effective project plan

#### Required T INFO Core Courses (65 credits)

- TINFO 200 Programming II for Information Technology and Systems (5)
- TINFO 210 Foundations of Information Management (5)
- TINFO 220 Foundations of Human Computer Interaction for Information Technology & Systems (5)
- TINFO 230 Foundations of Web Design and Programming (5)
- TINFO 240 Discrete Math for IT (5)
- TINFO 250 Foundations of Information Networking (5)
- TINFO 320 Hardware and Software Systems (5)
- TINFO 340 Foundations of Information Assurance (5)
- TINFO 360 Information Systems Analysis and Design (5)
- TINFO 370 Managing Technical Teams (5)
- TMATH 110 Statistics (5)
- TWRT 291 Technical Writing (5)
- TCSS 325 Computers, Ethics, and Society (5)

#### Required Internship and Senior Project (10 credits)

- T INFO 497 (5)
- T INFO 482 (5)

#### Senior Electives (20 credits)

#### Graduation Requirements

To qualify for graduation with a Bachelor of Science degree in Information Technology and Systems from the University of Washington Tacoma, a student must:

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- Complete 180 credits, of which at least 85 must be upper-division (300-400 level) course work.
- Complete a minimum of 45 credits of the required ITS courses in residence at the University of Washington Tacoma.
- Complete the final 45 credits in residence at the University of Washington Tacoma.
- Satisfy all of the general university graduation requirements, including five credits of English composition with a minimum grade of 2.0 (see page 22).
- Have a minimum cumulative grade point average of 2.0 in all classes and a minimum cumulative grade point average of 2.5 in all ITS and CSS classes.
- Apply for graduation with an adviser by the application deadline posted by the Graduation and Academic Records Office for the expected date of graduation.

In addition to the general requirements for graduation, students earning the bachelor of science degree must also:

- Complete the specified 95 credits of required courses in the Information Technology and Systems major.

Students who are admitted to the Information Technology and Systems program with a baccalaureate or master's degree must complete all required courses with a minimum grade of 2.0 and a total of 95 credits to qualify for a second bachelor's degree. Elective credit requirements are waived. Please see University policy on transfer credit

- Satisfy all of the general university graduation requirements, including five credits of English composition with a minimum grade of 2.0 (see page 22).
- Have a minimum cumulative grade point average of 2.0 in all classes and a minimum cumulative grade point average of 2.5 in all ITS and CSS classes.
- Apply for graduation with an adviser by the application deadline posted by the Graduation and Academic Records Office for the expected date of graduation.

In addition to the general requirements for graduation, students earning the bachelor of science degree must also:

- Complete the specified 80 credits of required courses in the Information Technology and Systems major.

Students who are admitted to the Information Technology and Systems program with a baccalaureate or master's degree must complete all required courses with a minimum grade of 2.0 and a total of 95 credits to qualify for a second bachelor's degree. Elective credit requirements are waived. Please see University policy on transfer credit on page 22.

#### **PROPOSED CATALOG COPY**

Reflecting requested changes (include exact wording as you wish it to be shown in the printed catalog. Please underline or otherwise highlight any additions. If needed, attach a separate, expanded version of the changes that might appear in department publications). Please note: all copy will be edited to reflect uniform style in the General Catalog.

#### **Program Educational Objectives:**

- Apply expertise regarding technical concepts and practices in information technology (IT).
- Demonstrate leadership through independent critical thinking and problem solving skills, and the application of solutions deriving from analysis of the impact of technology on individuals, organizations and society.
- Lead teams to accomplish a common goal by integrating personal initiative and group cooperation.
- Communicate efficiently with clients, users, coworkers, and managers using written and oral communication and facilitate group projects and activities in collaboration with peers.
- Engage in life-long learning to evaluate current and emerging technologies and assess their applicability to address the users' needs.
- Engage in graduate studies in information security, information systems, telecommunications, and other related information technology areas.

#### **Student Outcomes**




Students graduating from our information focused programs will be able to choose many different roles; becoming IT and IS consultants, project planners, project managers, interface designers, information systems researchers, web developers, and systems analysts. To emphasize, consider some of the general tasks that an information technology and systems specialist is likely to perform depending on where he/she works:

- An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline
- An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- An ability to function effectively on teams to accomplish a common goal
- An understanding of professional, ethical, legal, security and social issues and responsibilities
- An ability to communicate effectively with a range of audiences
- An ability to analyze the local and global impact of computing on individuals, organizations, and society
- Recognition of the need for and an ability to engage in continuing professional development
- An ability to use current techniques, skills, and tools necessary for computing practice

T INFO 240 Discrete Math for IT (5) QSR

Examines selected topics of discrete mathematics and statistics as applicable to students of information technology and systems. Topics covered include basic logic, discrete probability, functions, relations, and sets, hypothesis testing, sampling and descriptive statistics, graphs and trees, regular expressions, and application of mathematics and statistics to IT.

**APPROVALS**

Chair/Program Director: 	Date: 08/28/2014
College/School/Campus Curriculum Committee: 	Date: 10/29/14
Dean/Vice Chancellor: 	Date: 10/29/14
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:
<b>POST TRI-CAMPUS APPROVAL (when needed)</b>	
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:

Proposed:

1. Core requirements (**65** credits): T INFO 200; T INFO 210; T INFO 220; T INFO 230; **T INFO 240**; T INFO 250; T INFO 320; T INFO 340; T INFO 360; T INFO 370; **T MATH 110; TWRT 291; TCSS 325**
2. Internship and Senior Project (10 credits): T INFO 482; T INFO 497
3. Senior Electives - **minimum 20** credits selected from the following:
  - a) **Information Assurance and Cybersecurity Option (16-20 credits): T INFO 310; minimum 3 additional courses from approved IAC list; additional senior electives from an approved list to total 20 credits**
  - b) **Digital Mobile Forensics Option (15 credits): T INFO 444; T INFO 445; T INFO 446; 5 additional senior electives from an approved list to total 20 credits**
  - c) **Minimum of 20 credits from an approved list of electives**

Current

1. Core requirements (45 credits): T INFO 200; T INFO 210; T INFO 220; T INFO 230; T INFO 250; T INFO 320; T INFO 340; T INFO 360; T INFO 370
2. Internship and Senior Project (10 credits): T INFO 482; T INFO 497
3. Senior Electives (30 credits)

Proposed:

1. Core requirements (65 credits): T INFO 200; T INFO 210; T INFO 220; T INFO 230; T INFO 240; T INFO 250; T INFO 320; T INFO 340; T INFO 360; T INFO 370; T MATH 110; TWRT 291; TCSS 325
2. Internship and Senior Project (10 credits): T INFO 482; T INFO 497
3. Senior Electives - minimum 20 credits selected from the following: See advisor for approved lists.
  - a) Information Assurance and Security Option (16-20 credits): T INFO 310; minimum 3 additional courses from approved IAC list; additional senior electives to total 20 credits
  - b) Digital Mobile Forensics Option (15 credits): T INFO 444; T INFO 445; T INFO 446; 5 additional senior electives to total 20 credits
  - c) Minimum of 20 credits from an approved list of electives