

Program Modification

Program Changes must be submitted by November 5, 2007

Date : 10/31/2007 rev 12.7.08

Program Area: BSIT

Semester /Year First effected: Fall/2008

Instructions: Please use the following format to modify any existing program.

Enter the latest approved version of your entire program in the left and right boxes below.

Make your deletions in the left hand column by using the strike-out feature of Word or underline what you wish to delete, and highlight.

Amendments to the program (on the right side) also need to be highlight in **GREY** so they can be identified for approval.

Please align your changes so that they appear side-by-side as much as possible for readability. Thank you.

CURRENTLY APPROVED PROGRAM

PROGRAM OFFERED

- Bachelor of Science in Information Technology

(Pending approval from the Chancellor's Office and offered through California State University Channel Islands Extended Education Program)

This BSIT program is specifically designed to provide an avenue of advancement for students with associate's degrees in a technology discipline such as networking (e.g.: Moorpark College's Associate in Science Degree in Computer Network Systems Engineering). This new program gives the student the opportunity to complete a Bachelor of Science degree in Information Technology. The course work will provide a foundation in mathematics, programming, networking, databases, web, computer architecture and information systems. The BSIT sits between a BS in Computer Science and a BS in Management Information Systems, emphasizing the fastest growing segments of the both: Web Systems, Databases, and Networks. For a foundation, the BSIT program draws from both camps: mathematics, science, and computer programming from Computer Science, and business organization and project management from Management Information Systems. From there it adds depth in Web Programming and Technology, Database Theory and Design, and Data Communications and Networking, while allowing for further depth in these or related areas such as e-Commerce, Computer Security, and Multimedia.

PROPOSED PROGRAM

PROGRAM OFFERED

- Bachelor of Science in Information Technology

This BSIT program is specifically designed to provide an avenue of advancement for students with associate's degrees in a technology discipline such as networking (e.g.: Moorpark College's Associate in Science Degree in Computer Network Systems Engineering). This new program gives the student the opportunity to complete a Bachelor of Science degree in Information Technology. The course work will provide a foundation in mathematics, programming, networking, databases, web, computer architecture and information systems. The BSIT sits between a BS in Computer Science and a BS in Management Information Systems, emphasizing the fastest growing segments of the both: Web Systems, Databases, and Networks. For a foundation, the BSIT program draws from both camps: mathematics, science, and computer programming from Computer Science, and business organization and project management from Management Information Systems. From there it adds depth in Web Programming and Technology, Database Theory and Design, and Data Communications and Networking, while allowing for further depth in these or related areas such as e-Commerce, Computer Security, and Multimedia.

CAREERS

Potential career option for BSIT graduates include: Computer Systems Integrator, Computer Systems Manager, Information Technology Designer, Information Technology Support, Database Systems Manager, Database Systems Designer, Data Communications Analyst, Network Manager, Network Designer, Web Technology Manager, Web Technology Support.

PROGRAM LEARNING OUTCOMES AND CONTACT INFORMATION

<http://www.cs.csuci.edu/>

REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (120 UNITS)

Lower Division Requirements

Students entering this program are expected to have completed an associate's degree (or equivalent) in a technology area, including:

1. Statistics.
2. One semester of a Laboratory science (Physics, Chemistry, or Biology).
3. First course in a computer programming language such as C, Java or C++.
4. First course in Computer Architecture and Assembly Language.
5. CSU GE Certification or courses fulfilling the CSUCI lower division general education requirements.
6. A minimum of 10 units of lower division coursework in a technology area (computer technology, electronics technology, manufacturing technology, engineering, computer science, etc.).

Students who have not completed these 60 units prior to their admission to the program will be required to complete them at CSUCI or a community college. Course substitutions for these requirements may be made with the approval of the program chair.

Upper Division Requirements

Mathematics and Science Requirements (7 Units)

MATH 301 Discrete Mathematics for IT (3)

Lab Science II Physics, Chemistry or Biology (4)

CAREERS

Potential career option for BSIT graduates include: Computer Systems Integrator, Computer Systems Manager, Information Technology Designer, Information Technology Support, Database Systems Manager, Database Systems Designer, Data Communications Analyst, Network Manager, Network Designer, Web Technology Manager, Web Technology Support.

PROGRAM LEARNING OUTCOMES AND CONTACT INFORMATION

<http://www.cs.csuci.edu/>

REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (120 UNITS)

Lower Division Requirements

Students entering this program are expected to have completed an associate's degree (or equivalent) in a technology area, including:

1. Statistics.
2. One semester of a Laboratory science (Physics, Chemistry, or Biology).
3. First course in a computer programming language such as C, Java or C++.
4. First course in Computer Architecture and Assembly Language.
5. CSU GE Certification or courses fulfilling the CSUCI lower division general education requirements.
6. A minimum of 10 units of lower division coursework in a technology area (computer technology, electronics technology, manufacturing technology, engineering, computer science, etc.).

Students who have not completed these 60 units prior to their admission to the program will be required to complete them at CSUCI or a community college. Course substitutions for these requirements may be made with the approval of the program chair.

Upper Division Requirements

Mathematics and Science Requirements (7 Units)

MATH 301 Discrete Mathematics for IT (3)

Lab Science II Physics, Chemistry or Biology (4)

Core Courses (24 Units)

IT	151	Data Structures for IT (3)
IT	262	Computer Organization and Architecture for IT (3)
IT	280	Web Programming (3)
IT	362	Operating Systems for IT (3)
IT	429	Computer Networks for IT (3)
IT	420	Database Theory and Design for IT (3)
MIS	310	Management Information Systems (3)
MGT	307	Management of Organizations (3)

Upper Division Interdisciplinary GE (9 Units)

As a graduation requirement, all CSUCI students must complete 48 units of General Education. Nine of the 48 units must be resident upper division, interdisciplinary courses numbered in the 330-349 or 430-449 ranges.

Electives (15 units)

Choose 15 units from:

IT	400	e-Commerce (3)
IT	401	Web Intelligence (3)
IT	424	Computer System Security for IT (3)
IT	402	Advanced IT Programming (3)
IT	424	Computer System Security for IT (3)
IT	464	Computer Graphics for IT (3)
IT	469	Artificial Intelligence/Neural Networks for IT (3)
IT	490	Special Topics for IT (3)
MATH	137	Strategies and Game Design (3)
MATH	330	Mathematics and Fine Arts (3)
MATH	437	Mathematics for Game Programming (3)
COMP	232	Programming Languages (3)
COMP	337	Survey of Computer Gaming (3)
COMP	345	Digital Image Processing (3)
COMP	350	Introduction to Software Engineering (3)
COMP	425	Computer Game Programming (3)
COMP	447	Societal Issues in Computing (3)
COMP	449	Human Computer Interaction (3)
COMP	452	Computational Bioinformatics (4)
ART	324	Communication Design Technology: Web Design (3)
ART	326	Digital Media Art: 3D Computer Animation (3)

Core Courses (25 Units)

COMP	151	Data Structures for (4)
COMP	262	Computer Organization and Architecture (3)
IT	280	Web Programming (3)
COMP	362	Operating Systems (3)
IT	429	Computer Networks for IT (3)
IT	420	Database Theory and Design for IT (3)
MIS	310	Management Information Systems (3)
MGT	307	Management of Organizations (3)

Upper Division Interdisciplinary GE (9 Units)

As a graduation requirement, all CSUCI students must complete 48 units of General Education. Nine of the 48 units must be resident upper division, interdisciplinary courses numbered in the 330-349 or 430-449 ranges.

Electives (15 units)

Choose 15 units from: (Note: 9 units of the 15 units must be taken in IT courses)

IT	400	e-Commerce (3)
IT	401	Web Intelligence (3)
IT	424	Computer System Security for IT (3)
IT	402	Advanced IT Programming (3)
IT	424	Computer System Security for IT (3)
IT	464	Computer Graphics for IT (3)
IT	469	Artificial Intelligence/Neural Networks for IT (3)
IT	490	Special Topics for IT (3)
MATH	137	Strategies and Game Design (3)
MATH	330	Mathematics and Fine Arts (3)
MATH	437	Mathematics for Game Programming (3)
COMP	232	Programming Languages (3)
COMP	337	Survey of Computer Gaming (3)
COMP	345	Digital Image Processing (3)
COMP	350	Introduction to Software Engineering (3)
COMP	425	Computer Game Programming (3)
COMP	447	Societal Issues in Computing (3)
COMP	449	Human Computer Interaction (3)
COMP	452	Computational Bioinformatics (4)
ART	324	Communication Design Technology: Web Design (3)
ART	326	Digital Media Art: 3D Computer Animation (3)

(Additional electives to be added based on faculty availability).

Capstone (5 units)

MGT 471 Project Management (3)
IT 499 BSIT Capstone Project (2)

BSIT Summary (120 units)

Lower Division Requirements (60)
Mathematics and Science Requirements (7)
Core Courses (24)
Upper Division Interdisciplinary GE (9)
Upper Division Electives (15)
Capstone (5)

PROPOSED COURSE OF STUDY

Junior Year

FALL

Lab Science II (Bio, Chem, or Phys) (4)
IT 262 Computer Organization and Architecture for IT (3)
IT 151 Data Structures for IT (3)
MATH 301 Discrete Mathematics for IT (3)
ENGL 330 Writing in a Discipline (3)

SPRING

MGT 307 Management of Organizations (3)
IT 362 Operating Systems for IT (3)
IT 280 Web Programming (3)
IT 420 Database Theory and Design for IT (3)
COMP 447 Societal Issues in Computing (3)

Senior Year

FALL

MIS 310 Management Information Systems (3)
IT 429 Computer Networks for IT (3)
IT 402 Advanced IT Programming (3)
IT 400 e-Commerce (3)
MGT 471 Project Management (3)

(Additional electives to be added based on faculty availability).

Capstone (5 units)

MGT 471 Project Management (3)
IT 499 BSIT Capstone Project (1)

BSIT Summary (120 units)

Lower Division Requirements (60)
Mathematics and Science Requirements (7)
Core Courses (25)
Upper Division Interdisciplinary GE (9)
Upper Division Electives (15)
Capstone (4)

PROPOSED COURSE OF STUDY

Junior Year

FALL

Lab Science II (Bio, Chem, or Phys) (4)
COMP 262 Computer Organization and Architecture (3)
COMP 151 Data Structures (4)
MATH 301 Discrete Mathematics for IT (3)
ENGL 330 Writing in a Discipline (3)

SPRING

MGT 307 Management of Organizations (3)
COMP 362 Operating Systems (3)
IT 280 Web Programming (3)
IT 420 Database Theory and Design for IT (3)
COMP 447 Societal Issues in Computing (3)

Senior Year

FALL

MIS 310 Management Information Systems (3)
IT 429 Computer Networks for IT (3)
IT 402 Advanced IT Programming (3)
IT 400 e-Commerce (3)
MGT 471 Project Management (3)

SPRING COMP 449 Human Computer Interaction (3) IT 424 Computer System Security for IT (3) ART 324 Communication Design (3) IT 401 Web Intelligence (3) IT 499 BSIT Capstone (2)	SPRING COMP 449 Human Computer Interaction (3) IT 424 Computer System Security for IT (3) ART 324 Communication Design (3) IT 401 Web Intelligence (3) IT 499 BSIT Capstone (1)
---	---

SUMMARY OF CHANGES

1. At the top, the disclaimer about the Chancellor's Office Approval should be removed since we have final approval from the CO.
2. Change IT151 (3), IT 262 (3), and IT 362 (3) to COMP 151 (4), COMP 262 (3), and COMP 362 (3).
3. Change IT 499 (2) to IT 499 (1).

JUSTIFICATION

Two years of experience with the students in the BSIT program has confirmed that the courses mentioned (151, 262, 362) can and should be the same for both IT and CS majors. When we first designed the BSIT program we were concerned that even though these courses have the same technical content, the mathematical maturity of the CS majors as compared to IT majors would make it difficult to teach the two groups in the same classroom. After considerable thought, curriculum evaluation, instructor consultations, and student interviews we have concluded that the IT students are capable of keeping up with the CS students in these particular courses and in fact both types of students will benefit from the mix. It has now become inefficient and pointless to maintain both sets of courses.

The conversion of the IT 151, 262, and 362 requirements to COMP 151, 262, and 362 is quite straightforward except for the glitch that IT 151 is 3 units and COMP 151 is 4 units. To keep the number of units at 120, the Capstone project was reduced from 2 units to 1 unit.

William J. Wolfe 12/7/2007
Proposer of Program Modification Date

Program:

Program Chair		
---------------	--	--

Signature

Date

Curriculum Chair		
------------------	--	--

Signature

Date

Dean of Faculty		
-----------------	--	--

Signature

Date