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Academic Year: _____

FLORIDA INTERNATIONAL UNIVERSITY
UNDERGRADUATE PROGRAM PROPOSAL

Changes *to an Undergraduate Major*

INSTRUCTIONS: Please Type. Fill out this form **completely.**

School/College Engineering and Computing

Div./Dept. School of Computing and Information Sciences

Major Name: Software major

Degree Name: Bachelor of Science in Information Technology

☐ B.A. ■ B.S. ☐Other_____

Proposed Implementation Date: 1/6/2020

PROPOSAL REQUESTED BY:

Faculty Contact Nagarajan Prabakar _____ 3 /21 /2019
(Type Name) (Signature)

prabakar@cis.fiu.edu 305-348-2033
(Email address) (Phone Number)

Chair (Dept./Div.) S.S. Iyengar _____ 3 /21 /2019
(Type Name) (Signature)

Chair (Curr. Comm.) Cesar Levy _____ /____/2019
(Type Name) (Signature)

College/School Dean John Volakis _____ /____/2019
(Type Name) (Signature)

NO HEARING REQUIRED. PLEASE SUBMIT ORIGINAL FORM.

Bachelor of Science in Information Technology – Software Major

Justification for Program Changes

The changes to the Computer Science program forced the replacement of one required course and the renaming of another.

FLORIDA INTERNATIONAL UNIVERSITY
UNDERGRADUATE PROGRAM/CATALOG CHANGE PROPOSAL

FIU Undergraduate Catalog

Current (2018-2019)

Bachelor of Science in Information Technology

The School of Computing and Information Sciences offers a Bachelor of Science degree in Information Technology. There are two majors in the program. **1) Information Technology (IT) Major:** The information technology major is for students who want broad coverage of information technology concepts. **2) Software Major:** The software major is for students who want to add a strong theoretical foundation of Computer Science that can be integrated within a vast array of career options.

The B.S. in Information Technology degree as a first major requires completion of prerequisite courses and required and elective courses as outlined below. All required courses must be completed with a grade of "C" or better. All students must participate in SCIS assessment activities and successfully complete an exit interview prior to graduation.

Degree Program Hours: 120

Lower Division

Students must complete the following courses as part of their course work, preferably during the first 60 credits.

Common Prerequisite Courses and Equivalencies

FIU Course(s)	Equivalent Course(s)
CGS 2060 or CGS 2100 or CGS 2518	CGSXXXX
COP 2250	COPXXXX
PSY 2012	PSYXXXX
MAC 1140 or MAC 1147	MACXXXX

Consult FIU Catalog for double majors coupled with IT Programs. Students would need to take the prerequisites for the other major they select, in addition to the IT prerequisites.

Courses which form part of the statewide articulation between the State University System and the Florida College System will fulfill the Lower Division Common Prerequisites.

For generic course substitutions/equivalencies for Common Program Prerequisites offered at community colleges, state colleges, or state universities, visit: **http://www.flvc.org**, See Common Prerequisite Manual.

Required Courses

Common Prerequisites for Both Majors

All students must have completed the following courses (or equivalent) prior to starting the Information Technology program.

CGS 1920	Introduction to Computing	1
	or	
COP 1000	Computer Science for Everyone	3
	or	
IDC 1000	Intro to Computer Programming	3
CGS 2060	Introduction to Microcomputers	3
	or	
CGS 2100	Introduction to Microcomputer Applications for Business	3
	or	
CGS 2518	Computer Data Analysis	3

Proposed

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MAC 1140	Pre-Calculus Algebra	3
	or	
MAC 1147	Pre-Calculus Algebra and Trigonometry	3
PSY 2012	Introductory Psychology or equivalent	3

IT Major-specific Prerequisites

COP 2250	Programming in Java	3
MAD 1100	Mathematics Concepts for Information Technology	3
	or	
COT 3100	Discrete Structures	3

Software Major-specific Prerequisites

COP 2210	Computer Programming I	3
MAD 2104	Discrete Mathematics	3
	or	
COT 3100	Discrete Structures	3

Upper Division Requirements

At least 50% of the upper division credits required for the BS in Information Technology must be taken at FIU.

Interdisciplinary Courses for Both Majors

Nine additional credits must be taken outside the School of Computing and Information Sciences. These credits must normally be selected from the courses for a minor or certificate in another discipline. When there is no minor or certificate in the area of the student's interest, a set of courses can be created with the approval of advisers from SCIS and the other area of interest.

Common Required Courses for Both Majors

All students must complete the following courses.

CEN 3721	Introduction to Human-Computer Interaction	3
CGS 3767	Computer Operating Systems	3
CGS 4285	Applied Computer Networking	3
CGS 4854	Web Site Construction and Management	3
CNT 4403	Computing and Network Security	3
COP 4703	Information Storage and Retrieval	3
COP 4814	Component-Based Software Development	3
ENC 3249	Professional and Technical Writing for Computing	3
CGS 3095	Technology in the Global Arena – *GL*	3

Information Technology Electives

Students in both majors must take information technology electives. The electives are arranged in the following areas of concentration:

- System Administration
- Applied Network Administration
- Application Development
- Databases
- Security

Information Technology (IT) Major

IT Major-specific Required Course

COP 3804	Intermediate Java	3

MAC 1140	Pre-Calculus Algebra	3
	or	
MAC 1147	Pre-Calculus Algebra and Trigonometry	3
PSY 2012	Introductory Psychology or equivalent	3

IT Major-specific Prerequisites

COP 2250	Programming in Java	3
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Information Technology (IT) Major

IT Major-specific Required Course

COP 3804	Intermediate Java	3

IT Major-specific Electives Students must complete five electives courses, as follows. Select two areas of concentration and take two courses in each of the chosen concentration areas (four courses). Select the fifth course from any area of concentration. **Software Major** **Software Major-specific Required Courses** CDA 3103 Fundamentals of Computer Systems 3 COP 3337 Computer Programming II 3 COP 3530 Data Structures 3 COP 4338 Computer Programming III 3 **Software Major-specific Electives** Students must select one area of concentration and complete two elective courses in that area. **Free Electives for Both Majors** All students must complete nine additional credits of general electives.	**IT Major-specific Electives** Students must complete five electives courses, as follows. Select two areas of concentration and take two courses in each of the chosen concentration areas (four courses). Select the fifth course from any area of concentration. **Software Major** **Software Major-specific Required Courses** ~~CDA 3103 Fundamentals of Computer Systems 3~~ CDA 3XXX Computer Architecture 3 COP 3337 Computer Programming II 3 COP 3530 Data Structures 3 COP 4338 ~~Computer~~ Systems Programming ~~III~~ 3 **Software Major-specific Electives** Students must select one area of concentration and complete two elective courses in that area. **Free Electives for Both Majors** All students must complete nine additional credits of general electives.

Rationale: Please see the attached justification to this program catalog change proposal.