



DO NOT TYPE IN THIS BOX
 Bulletin #: 3
 Academic Year: 2022-23

FLORIDA INTERNATIONAL UNIVERSITY UNDERGRADUATE PROGRAM PROPOSAL

Changes to an Undergraduate Degree Program

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

School/College Engineering and Computing

Div./Dept. Knight Foundation School of Computing and Information Sciences

Degree Title: Bachelor of Science in Cybersecurity

B.A. B.S. Other Bachelor's _____

Proposed Implementation Date: 8/21/2023

PROPOSAL REQUESTED BY:

Faculty Contact _____ Masoud Sadjadi Masoud Sadjadi _____ 11 / 10 / 2022
(Type Name) (Signature)
 _____ sadjadi@cs.fiu.edu _____
(Email address) (Phone Number)

Chair (Dept./Div.) _____ Jason Liu _____ 11 / 21 / 2022
(Type Name) (Signature)

Chair (Curr. Comm.) _____ _____ / / 2022
(Type Name) (Signature)

College/School Dean _____ John Volakis _____ / / 2022
(Type Name) (Signature)

NO HEARING REQUIRED. PLEASE SUBMIT ORIGINAL FORM.

DO NOT TYPE IN THIS BOX

Bulletin #: _____

Academic Year: _____

CHANGES TO UNDERGRADUATE DEGREE PROGRAM

PLEASE SUBMIT THIS FORM WITH YOUR PROPOSAL

Please fill out the coversheet in its entirety.

The proposal must include the following elements using the current undergraduate catalog:

- I. List old degree's prescribed courses, other requirements, credits, and page number (left column)
- II. List new degree's prescribed courses, other requirements, and credits (**right column, use red font to denote additions to text and strikethrough feature to denote omissions**)
- III. Include a brief rationale for the change

Complete the checklist that begins on the following page.

- | | YES | NO | N/A |
|---|-------------------------------------|-------------------------------------|----------------------------------|
| 1. Do all courses exist in the current catalog? | <input type="radio"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. If courses are not in the current catalog, are they proposed in the same Curriculum Committee bulletin as this proposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="radio"/> |
| 3. If courses are not in the current catalog or proposed in this same bulletin, were they approved in a previous curriculum bulletin? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="radio"/> |
| <ul style="list-style-type: none"> • If yes, attach a separate sheet indicating each course number, name, bulletin number, and bulletin date. • If the answers to 1, 2, or 3 are no, do not submit the proposal. Address the course issues first. | | | |
| 4. Do courses listed have the correct course prefixes, official titles, course numbers, and number of credits? | <input checked="" type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Do course descriptions match the existing catalog or proposed course descriptions? | <input checked="" type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Are all courses to be added taught in the same proposing department? | <input checked="" type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Are courses to be deleted taught in the same proposing department? | <input checked="" type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <ul style="list-style-type: none"> • If the answer to 6 or 7 is no, do you have written approval/acknowledgment of the other department(s)? The written approval(s) or acknowledgment(s) must be attached to the proposal. (You must have written approval before submitting this document.) | | | |
| 8. Does this change affect the courses measuring Student Learning Outcomes (SLOs) or Program Outcomes (POs) for the program? (For a copy of the assessment reports, please send a request to assessment@fiu.edu .) If yes, please submit revised SLOs and POs to assessment@fiu.edu for approval. Documentation of approval must be attached. | <input type="checkbox"/> | <input checked="" type="radio"/> | <input type="checkbox"/> |

YES NO N/A

9. Have you contacted the Office of Academic Planning and Accountability to determine if the proposed program changes constitute a substantive change that requires notification or a prospectus to be submitted to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)? Please do so prior to submitting this form if you answer yes to any of the questions below.

- Will significant additional equipment be needed to deliver the revised program?

- Will significant additional facilities be needed to deliver the revised program?

- Will significant additional financial resources be needed to deliver the revised program?

- Will a significant amount of new content be required? (Significant is defined as equal to or greater than 25% new content.)

- o Changing 25% or more of the content of an existing degree constitutes a "significant departure" from the institution's existing programs and requires SACSCOC notification (or approval) prior to implementation. Whether to notify or to seek approval from SACSCOC depends on the amount of new content required. How much new content will be required for the revised program? (Please check the appropriate percent range below.)

25%-49% of the program's content, which requires notification to SACSCOC prior to implementation

50% or more of the program's content, which requires SACSCOC approval prior to implementation; approval must be obtained according to SACSCOC deadlines

- Will a significant number of new faculty members be required to deliver the revised program?

- Will significant additional library/learning resources be needed to deliver the revised program?

YES NO N/A

- Will at least 25% of the program be offered at a new location geographically apart from the main campus? (If yes, please check the appropriate percent range below.)

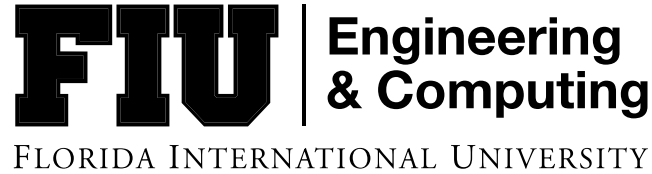
25%-49% of the program will be offered at a new location, which requires notification to SACSCOC prior to implementation

50% or more of the program will be offered at a new location, which requires SACSCOC approval prior to implementation; approval must be obtained according to SACSCOC deadlines

- Will the revised program enter into a collaborative academic arrangement that includes the initiation of a dual academic program with another institution?

- Will the revised program enter into a contract by which an entity not eligible for Title IV funding offers 25% or more of the program (e.g., international university)?

Clear Form



To: Mary Cossio
Faculty Senate

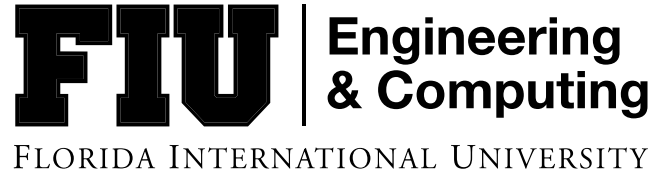
From: Dean or Assoc. Dean and College Curriculum Cmte. Chair

Subject: Memo in Lieu of Curriculum Chair and Dean Signatures for Bulletin #3

Date: November 24, 2022

As instructed by the Faculty Senate, this memo will serve as approval of the attached proposals for Bulletin #3 by our Curriculum Committee Chair, Alexander Afanasyev, and the Dean for College of Engineering and Computing (John L. Volakis), in lieu of physical signatures. The proposals in this Bulletin were approved by our Curriculum Committee on November 23, 2022.

In addition to the above, memos in lieu of signatures have also been included by departments unable to obtain physical signatures for their faculty contact and/or department chair.



To: Mary Cossio
Faculty Senate

From: Faculty Contact and KFSCIS Interim Director

Subject: Memo in Lieu of Curriculum Chair and Dean Signatures for Bulletin #3

Date: November 24, 2022

As instructed by the Faculty Senate, this memo will serve as approval of the attached proposals from KFSCIS for Bulletin #3 by faculty contact (Masoud Sadjadi) and KFSCIS Interim Director (Jason Liu), in lieu of physical signatures. The proposals in this Bulletin were approved by our Curriculum Committee on November 23, 2022.

Bachelor of Science in Cybersecurity

Justification for Program Changes

By allowing to take alternative courses, namely, CTS 1120 (Fundamentals of Cybersecurity) or CTS 1XXX (Emerging Topics in Digital Life) instead of the currently required lower division course CGS 1540 (Introduction to Databases for All), we accommodate different group of students with different needs and expectations. In other words, if a student has already decided to take cybersecurity as a major, s/he can acquire more technical knowledge of cybersecurity by taking CTS 1120, and if not, acquire a broad exposure to cybersecurity by taking CTS 1XXX.

For clarity, we added the URL to the list of elective courses at the KFSCIS portal.

FLORIDA INTERNATIONAL UNIVERSITY UNDERGRADUATE PROGRAM/CATALOG CHANGE PROPOSAL

FIU Undergraduate Catalog

OLD (page 449)	NEW																																																																																																																		
<p>Bachelor of Science in Cybersecurity</p> <p>Degree Program Hours: 120</p> <p>Lower Division</p> <p>Students must complete the following courses as part of their course work, preferably during the first 60 credits.</p> <p>Common Prerequisite FIU Equivalent Course(s)</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>CGS X540</td><td>CGS 1540</td></tr> <tr><td>COP X270</td><td>COP 2270</td></tr> <tr><td>COP X250</td><td>COP 2250</td></tr> <tr><td>ECO X013</td><td>ECO 2013</td></tr> <tr><td>MAC X147</td><td>MAC 1147</td></tr> <tr><td>MAD X104</td><td>MAD2104²</td></tr> <tr><td>PHY XXXX</td><td>PHY 2053</td></tr> <tr><td>PSY X012</td><td>PSY 2012</td></tr> <tr><td>STA X023</td><td>STA 2023¹</td></tr> </table> <p>¹STA 2023 may be replaced with STA-2122 or STA-3111. ²MAD 2104 may be replaced with COT 3100.</p> <p>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. Please visit https://cpm.flvc.org for a current list of state-approved common prerequisites.</p> <p>Degree Requirements</p> <p>Additional requirement: (students admitted with less than 55 credits)</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>CGS 1920</td><td>Introduction to the Field of Computing</td><td style="text-align: right;">1</td></tr> </table> <p>Upper-Division Requirements: At least 50% of the upper-division credits required for the BS in Cybersecurity must be taken at FIU.</p> <p>Third and Fourth Years – 33 credits</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>CEN 3721</td><td>Human Computer Interaction</td><td style="text-align: right;">3</td></tr> <tr><td>CGS 3095</td><td>Technology in the Global Arena–GL</td><td style="text-align: right;">3</td></tr> <tr><td>CGS 3767</td><td>Computer Operating Systems</td><td style="text-align: right;">3</td></tr> <tr><td>CGS 4285</td><td>Applied Computer Networking</td><td style="text-align: right;">3</td></tr> <tr><td>CIS 4365</td><td>Enterprise Cybersecurity</td><td style="text-align: right;">3</td></tr> <tr><td>CNT 4182</td><td>Mobile & IoT Security</td><td style="text-align: right;">3</td></tr> <tr><td>CNT 4403</td><td>Computing & Network Security</td><td style="text-align: right;">3</td></tr> <tr><td>COP 3804</td><td>Intermediate Java</td><td style="text-align: right;">3</td></tr> <tr><td>COP 4703</td><td>Information Storage & Retrieval</td><td style="text-align: right;">3</td></tr> <tr><td>ENC 3249</td><td>Professional and Technical Writing for Computing</td><td style="text-align: right;">3</td></tr> <tr><td>CIS 3950</td><td>Capstone I</td><td style="text-align: right;">1</td></tr> <tr><td>CIS 4951</td><td>Capstone II</td><td style="text-align: right;">2</td></tr> </table> <p>Cybersecurity Electives – 9 credits</p> <p>Students must complete three courses from the list of electives maintained by the School. These electives will be drawn from acceptable elective courses from the BA in Computer Science, BS in Information Technology, and from the concentration electives of Electrical and Computer Engineering Department.</p>	CGS X540	CGS 1540	COP X270	COP 2270	COP X250	COP 2250	ECO X013	ECO 2013	MAC X147	MAC 1147	MAD X104	MAD2104 ²	PHY XXXX	PHY 2053	PSY X012	PSY 2012	STA X023	STA 2023 ¹	CGS 1920	Introduction to the Field of Computing	1	CEN 3721	Human Computer Interaction	3	CGS 3095	Technology in the Global Arena–GL	3	CGS 3767	Computer Operating Systems	3	CGS 4285	Applied Computer Networking	3	CIS 4365	Enterprise Cybersecurity	3	CNT 4182	Mobile & IoT Security	3	CNT 4403	Computing & Network Security	3	COP 3804	Intermediate Java	3	COP 4703	Information Storage & Retrieval	3	ENC 3249	Professional and Technical Writing for Computing	3	CIS 3950	Capstone I	1	CIS 4951	Capstone II	2	<p>Bachelor of Science in Cybersecurity</p> <p>Degree Program Hours: 120</p> <p>Lower Division</p> <p>Students must complete the following courses as part of their course work, preferably during the first 60 credits.</p> <p>Common Prerequisite FIU Equivalent Course(s)</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>CGS X540</td><td>CGS 1540³</td></tr> <tr><td>COP X270</td><td>COP 2270</td></tr> <tr><td>COP X250</td><td>COP 2250</td></tr> <tr><td>ECO X013</td><td>ECO 2013</td></tr> <tr><td>MAC X147</td><td>MAC 1147</td></tr> <tr><td>MAD X104</td><td>MAD 2104²</td></tr> <tr><td>PHY XXXX</td><td>PHY 2053</td></tr> <tr><td>PSY X012</td><td>PSY 2012</td></tr> <tr><td>STA X023</td><td>STA 2023¹</td></tr> </table> <p>¹STA 2023 may be replaced with STA-2122 or STA-3111. ²MAD 2104 may be replaced with COT 3100. ³CGS 1540 may be replaced with CTS 1120 or CTS 1XXX.</p> <p>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. Please visit https://cpm.flvc.org for a current list of state-approved common prerequisites.</p> <p>Degree Requirements</p> <p>Additional requirement: (students admitted with less than 55 credits)</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>CGS 1920</td><td>Introduction to the Field of Computing</td><td style="text-align: right;">1</td></tr> </table> <p>Upper-Division Requirements: At least 50% of the upper-division credits required for the BS in Cybersecurity must be taken at FIU.</p> <p>Third and Fourth Years – 33 credits</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>CEN 3721</td><td>Human Computer Interaction</td><td style="text-align: right;">3</td></tr> <tr><td>CGS 3095</td><td>Technology in the Global Arena–GL</td><td style="text-align: right;">3</td></tr> <tr><td>CGS 3767</td><td>Computer Operating Systems</td><td style="text-align: right;">3</td></tr> <tr><td>CGS 4285</td><td>Applied Computer Networking</td><td style="text-align: right;">3</td></tr> <tr><td>CIS 4365</td><td>Enterprise Cybersecurity</td><td style="text-align: right;">3</td></tr> <tr><td>CNT 4182</td><td>Mobile & IoT Security</td><td style="text-align: right;">3</td></tr> <tr><td>CNT 4403</td><td>Computing & Network Security</td><td style="text-align: right;">3</td></tr> <tr><td>COP 3804</td><td>Intermediate Java</td><td style="text-align: right;">3</td></tr> <tr><td>COP 4703</td><td>Information Storage & Retrieval</td><td style="text-align: right;">3</td></tr> <tr><td>ENC 3249</td><td>Professional and Technical Writing for Computing</td><td style="text-align: right;">3</td></tr> <tr><td>CIS 3950</td><td>Capstone I</td><td style="text-align: right;">1</td></tr> <tr><td>CIS 4951</td><td>Capstone II</td><td style="text-align: right;">2</td></tr> </table> <p>Cybersecurity Electives – 9 credits</p> <p>Students must complete three courses from the list of electives maintained by the School KFSCIS². These electives will be drawn from acceptable elective courses from the BA in Computer Science, BS in Information Technology, and from</p>	CGS X540	CGS 1540 ³	COP X270	COP 2270	COP X250	COP 2250	ECO X013	ECO 2013	MAC X147	MAC 1147	MAD X104	MAD 2104 ²	PHY XXXX	PHY 2053	PSY X012	PSY 2012	STA X023	STA 2023 ¹	CGS 1920	Introduction to the Field of Computing	1	CEN 3721	Human Computer Interaction	3	CGS 3095	Technology in the Global Arena–GL	3	CGS 3767	Computer Operating Systems	3	CGS 4285	Applied Computer Networking	3	CIS 4365	Enterprise Cybersecurity	3	CNT 4182	Mobile & IoT Security	3	CNT 4403	Computing & Network Security	3	COP 3804	Intermediate Java	3	COP 4703	Information Storage & Retrieval	3	ENC 3249	Professional and Technical Writing for Computing	3	CIS 3950	Capstone I	1	CIS 4951	Capstone II	2
CGS X540	CGS 1540																																																																																																																		
COP X270	COP 2270																																																																																																																		
COP X250	COP 2250																																																																																																																		
ECO X013	ECO 2013																																																																																																																		
MAC X147	MAC 1147																																																																																																																		
MAD X104	MAD2104 ²																																																																																																																		
PHY XXXX	PHY 2053																																																																																																																		
PSY X012	PSY 2012																																																																																																																		
STA X023	STA 2023 ¹																																																																																																																		
CGS 1920	Introduction to the Field of Computing	1																																																																																																																	
CEN 3721	Human Computer Interaction	3																																																																																																																	
CGS 3095	Technology in the Global Arena–GL	3																																																																																																																	
CGS 3767	Computer Operating Systems	3																																																																																																																	
CGS 4285	Applied Computer Networking	3																																																																																																																	
CIS 4365	Enterprise Cybersecurity	3																																																																																																																	
CNT 4182	Mobile & IoT Security	3																																																																																																																	
CNT 4403	Computing & Network Security	3																																																																																																																	
COP 3804	Intermediate Java	3																																																																																																																	
COP 4703	Information Storage & Retrieval	3																																																																																																																	
ENC 3249	Professional and Technical Writing for Computing	3																																																																																																																	
CIS 3950	Capstone I	1																																																																																																																	
CIS 4951	Capstone II	2																																																																																																																	
CGS X540	CGS 1540 ³																																																																																																																		
COP X270	COP 2270																																																																																																																		
COP X250	COP 2250																																																																																																																		
ECO X013	ECO 2013																																																																																																																		
MAC X147	MAC 1147																																																																																																																		
MAD X104	MAD 2104 ²																																																																																																																		
PHY XXXX	PHY 2053																																																																																																																		
PSY X012	PSY 2012																																																																																																																		
STA X023	STA 2023 ¹																																																																																																																		
CGS 1920	Introduction to the Field of Computing	1																																																																																																																	
CEN 3721	Human Computer Interaction	3																																																																																																																	
CGS 3095	Technology in the Global Arena–GL	3																																																																																																																	
CGS 3767	Computer Operating Systems	3																																																																																																																	
CGS 4285	Applied Computer Networking	3																																																																																																																	
CIS 4365	Enterprise Cybersecurity	3																																																																																																																	
CNT 4182	Mobile & IoT Security	3																																																																																																																	
CNT 4403	Computing & Network Security	3																																																																																																																	
COP 3804	Intermediate Java	3																																																																																																																	
COP 4703	Information Storage & Retrieval	3																																																																																																																	
ENC 3249	Professional and Technical Writing for Computing	3																																																																																																																	
CIS 3950	Capstone I	1																																																																																																																	
CIS 4951	Capstone II	2																																																																																																																	

<p>Interdisciplinary Courses – 9 credits</p> <p>Nine additional credits must be taken from one cognitive area outside KFSCIS. For example, 9 credits within a minor or certificate meets this requirement. Find minors and certificates in the FIU Undergraduate Catalog https://catalog.fiu.edu/. 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 KFSCIS and from the other area of interest.</p>	<p>the concentration electives of Electrical and Computer Engineering Department.</p> <p>*https://www.cis.fiu.edu/academics/degrees/undergraduate/cybersecurity/</p> <p>Interdisciplinary Courses – 9 credits</p> <p>Nine additional credits must be taken from one cognitive area outside KFSCIS. For example, 9 credits within a minor or certificate meets this requirement. Find minors and certificates in the FIU Undergraduate Catalog https://catalog.fiu.edu/. 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 KFSCIS and from the other area of interest.</p>
--	--

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