



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 Computer Science

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 *[Signature]* 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 checked="" type="radio"/> | <input 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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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?
<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. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="radio"/> |
| 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?
<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.) | <input checked="" type="radio"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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

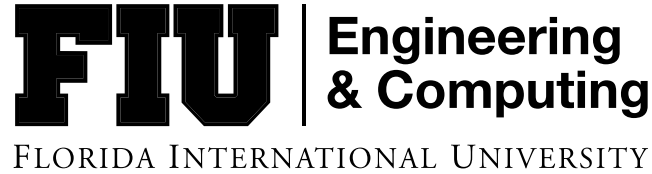
From: Dean or Assoc. Dean and College Curriculum Cmte. Chair

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 Computer Science

Justification for Program Changes

- ABET requires our BS in CS program to have 15 units of Math credits, but currently, we only have 14. Also, ABET identified insufficient coverage of theory/complexity and programming languages in our BS in CS program. We solved both of the above-mentioned problems by moving the COP4555 (Principles of Programming Languages) course from the Foundations elective group and adding it as a required course. We note that any of the courses currently listed in our Foundations elective courses satisfy at least one credit of math, and will make sure that in the future if any new Foundations elective courses are to be considered, they must also comply with this requirement.
- ABET also identified a lack of Secure, Networking, and Distributed Computing in our BS in CS program. We solved this problem by moving CNT4713 (Net-Centric Computing) from the Systems elective group into the required courses in our BS in CS program.
- As the currently listed required courses for science in our BS in CS, namely, PHY2048, PHY2048L, PHY2049, and PHY2049L, no longer are accepted by ABET to satisfy one credit of Math, then there is no need to only have these as the required courses. So, we decided to make our program more flexible by allowing a list of science courses to be taken by our students. This way, a more diverse group of students may now consider joining our program. The list is maintained by our school and it satisfies the ABET's six required credits of science with labs, as well as the UCC's eight required credits of science in our BS in CS program.
- Finally, for keeping our BS in CS up to date with the rapid changes in this field, the list of elective courses for this major needs to be revised frequently as we encourage our faculty to offer new courses relevant to topics practiced in the industry. By allowing KFSCIS to maintain the list of electives on its portal, our students and faculty members can become aware of the most recent changes in a timely manner, keeping up with the pace of changes in this field. Having the list as part of the catalog would only create unnecessary work for everyone involved and delays the effective date of the changes significantly. This proposal resolves the above issue.

FLORIDA INTERNATIONAL UNIVERSITY UNDERGRADUATE PROGRAM/CATALOG CHANGE PROPOSAL

FIU Undergraduate Catalog

OLD (page 447)	NEW																																				
<p>Bachelor of Science in Computer Science Degree Program Hours: 120</p> <p>The Bachelor of Science program in Computer Science is accredited by the Computing Accreditation Commission (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – Telephone (410) 347-7700.</p> <p>Students must follow regular University admission procedures and upon admission declare their specific major as Computer Science. Two tracks are available in the program. The Computer Science track should be followed by the student who intends to continue to graduate study in computer science. The Software Design and Development track may be followed by the student who intends to pursue a software engineering career.</p> <p>All required courses must be completed with a grade of "C" or better. All students must participate in KFSCIS assessment activities and successfully complete an exit interview prior to graduation.</p> <p>Lower Division</p> <p>Students must complete the following courses as part of their course work, preferably during the first 60 credits and complete COP 2210 with a grade of "C" or higher:</p> <p>Common Prerequisite Courses and Equivalencies</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>FIU Course(s)</u></th> <th style="text-align: left;"><u>Equivalent Course(s)</u></th> </tr> </thead> <tbody> <tr> <td>COP 2210</td> <td>COPXXXX¹</td> </tr> <tr> <td>MAC 2311</td> <td>MACX311 or MACX281</td> </tr> <tr> <td>MAC 2312</td> <td>MACX312 or MACX282</td> </tr> <tr> <td>PHY 2048, PHY 2048L</td> <td>PHYX048/X048L or PHYX048C</td> </tr> <tr> <td>PHY 2049, PHY 2049L</td> <td>PHYX049/X049L or PHYX049C</td> </tr> <tr> <td>XXXXXXX³</td> <td>XXXXXXX²</td> </tr> </tbody> </table> <p>¹Intro Programming in C, C++, JAVA, or equivalent language. Choose programming language required by the university to which the student wishes to transfer. ²Science course for science majors. ³Two additional one-semester courses in natural science; each of these should be a course designed for science or engineering majors. A list of additional approved courses is available through the Knight Foundation School of Computing and Information Sciences.</p>	<u>FIU Course(s)</u>	<u>Equivalent Course(s)</u>	COP 2210	COPXXXX ¹	MAC 2311	MACX311 or MACX281	MAC 2312	MACX312 or MACX282	PHY 2048, PHY 2048L	PHYX048/X048L or PHYX048C	PHY 2049, PHY 2049L	PHYX049/X049L or PHYX049C	XXXXXXX ³	XXXXXXX ²	<p>Bachelor of Science in Computer Science Degree Program Hours: 120</p> <p>The Bachelor of Science program in Computer Science is accredited by the Computing Accreditation Commission (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 Telephone (410) 347 7700 of <u>ABET</u>, https://www.abet.org.</p> <p>Students must follow regular University admission procedures and upon admission declare their specific major as Computer Science. Two tracks are available in the program. The Computer Science track should be followed by the student who intends to continue to graduate study in computer science. The Software Design and Development track may be followed by the student who intends to pursue a software engineering career.</p> <p>All required courses must be completed with a grade of "C" or better. 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Choose programming language required by the university to which the student wishes to transfer. ²Science course for science majors. ³Two additional one-semester courses in natural science; each of these should be a course designed for science or engineering majors. A list of additional approved courses is available through the Knight Foundation School of Computing and Information Sciences.</p> <p>²The following courses and corresponding lab may be used for Science Group 1: BSC 2010/2010L, CHM 1045/1045L, ESC 1000/1000L, PHY 2048/2048L. The following courses and corresponding lab may be used for Science Group 2: BSC</p>	<u>FIU Course(s)</u>	<u>Equivalent Course(s)</u>	COP 2210	COPXXXX ¹	MAC 2311	MACX311 or MACX281	MAC 2312	MACX312 or MACX282	PHY 2048, PHY 2048L	PHYX048/X048L or PHYX048C	PHY 2049, PHY 2049L	PHYX049/X049L or PHYX049C	XXXXXXX³	XXXXXXX²	Science 1²	See footnote 2 below	Science 1 Lab²	See footnote 2 below	Science 2²	See footnote 2 below	Science 2 Lab²	See footnote 2 below
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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.

**Required Courses
Common Prerequisites**

COP 2210	Computer Programming I
MAC 2311	Calculus I
MAC 2312	Calculus II
PHY 2048	Physics with Calculus I
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II

Upper Division Requirements

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

Courses Required for the Degree: (both tracks)

Third and Fourth Years

CGS 1920	Introduction to the Field of Computing	1
or		
COP 1000	Computer Science for Everyone	3
or		
IDC 1000	Intro to Computer Programming	3
COT 3100	Discrete Structures	3
or		
MAD 2104	Discrete Mathematics	3
ENC 3249	Professional and Technical Writing for Computing	3
or		
ENC 3213	Professional and Technical Writing	3
CDA 3102	Computer Architecture	3
CEN 4010	Software Engineering I	3
CGS 3095	Technology in the Global Arena – GL	3
COP 3530	Data Structures	3
COP 3337	Computer Programming II	3
COP 4338	Systems Programming	3
COP 4610	Operating Systems Principles	3
STA 3033	Introduction to Probability and Statistics for CS	3
*CIS 3950	Capstone I	1

2011/2011L, CHM 1046/1046L, GEO 3510/3510L, GLY 1010/1010L, GLY 3039/3039L, PHY 2049/2049L. Except for CHM-1046/1046L, all courses on the list can be used to satisfy the UCC Natural Sciences requirement. Transfer courses and labs not listed but that develop an understanding of the scientific method and are designated for science or engineering majors will be considered.

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.

**Required Courses
Common Prerequisites**

COP 2210	Computer Programming I
MAC 2311	Calculus I
MAC 2312	Calculus II
PHY 2048	Physics with Calculus I
PHY 2048L	General Physics Lab I
PHY 2049	Physics with Calculus II
PHY 2049L	General Physics Lab II
<u>Science 1*</u>	
<u>Science 1 Lab*</u>	
<u>Science 2*</u>	
<u>Science 2 Lab*</u>	

*For a list of courses and corresponding labs which may be used for Science 1 and Science 2, view footnote 2 above under "Common Prerequisite Courses and Equivalencies".

Upper Division Requirements

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

Courses Required for the Degree: (both tracks)

Third and Fourth Years

CGS 1920	Introduction to the Field of Computing	1
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ENC 3213	Professional and Technical Writing	3
CDA 3102	Computer Architecture	3
CEN 4010	Software Engineering I	3
CGS 3095	Technology in the Global Arena – GL	3
CNT 4713	Net-Centric Computing	3
COP 3530	Data Structures	3
COP 3337	Computer Programming II	3
COP 4338	Systems Programming	3
COP 4555	Principles of Programming Languages	3
COP 4610	Operating Systems Principles	3
STA 3033	Introduction to Probability and Statistics for CS	3

*CIS 4951	Capstone II	2	*CIS 3950	Capstone I	1
	or		*CIS 4951	Capstone II	2
†*CIS 4911	Senior Project	3		or	
			†*CIS 4911	Senior Project	3
*Students admitted from Fall 2020 must take Capstone I and II, and not allowed to take CIS 4911.			*Students admitted from Fall 2020 must take Capstone I and II, and not allowed to take CIS 4911.		
†Students admitted before Fall 2020 are strongly encouraged to take Capstone I and Capstone II. However, they may fulfill the capstone requirement by completing either CIS 4911 or IDS 4918.			†Students admitted before Fall 2020 are strongly encouraged to take Capstone I and Capstone II. However, they may fulfill the capstone requirement by completing either CIS 4911 or IDS 4918.		
Additional required courses for SDD track			Additional required courses for SDD track		
CEN 4021	Software Engineering II	3	CEN 4021	Software Engineering II	3
§**CEN 4072	Fundamentals of Software Testing	3	§**CEN 4072	Fundamentals of Software Testing	3
§**With the permission of an KFSCIS UG advisor, students can register for CEN 5064 and then substitute CEN 5064 for CEN 4072.			§**With the permission of an KFSCIS UG advisor, students can register for CEN 5064 and then substitute CEN 5064 for CEN 4072.		
Computer Science Elective Groups			Computer Science Elective Groups		
The list of courses for each elective group is maintained by the Knight Foundation School of Computing and Information Sciences. The lists include the following elective courses:			The list of courses for each elective group is maintained by the Knight Foundation School of Computing and Information Sciences. The lists include the following elective courses:		
Foundations: CAP 4506, CAP 4534, COP 4555, COT 3541, COT 4521, MAD 3301, MAD 3401, MAD 3512, MAD 4203, MHF 4302			Foundations: CAP 4506, CAP 4534, COP 4555, COT 3541, COT 4521, MAD 3301, MAD 3401, MAD 3512, MAD 4203, MHF 4302		
Systems: CAP 4453, CDA 4625, CEN 4083, CNT 4713, COP 4520, COP 4604, COP 4710, CTS 4408			Systems: CAP 4453, CDA 4625, CEN 4083, CNT 4713, COP 4520, COP 4604, COP 4710, CTS 4408		
Applications: CAP 4104, CAP 4612, CAP 4630, CAP 4641, CAP 4710, CAP 4770, CEN 4021, CEN 4072, COP 4226			Applications: CAP 4104, CAP 4612, CAP 4630, CAP 4641, CAP 4710, CAP 4770, CEN 4021, CEN 4072, COP 4226		
CS-track students must complete one course from each of the three elective groups and must complete six additional elective courses from these elective groups.			CS-track students must complete one course from each of the three elective groups and must complete six additional elective courses from these elective groups.		
SDD-track students must complete one course from Foundations group, one course from Systems group and must complete five additional elective courses from these elective groups.			SDD-track students must complete one course from Foundations group, one course from Systems group and must complete five additional elective courses from these elective groups.		
NOTE: Graduate courses can also be used to satisfy elective requirements. Please see adviser for approval. Graduate courses are subject to graduate fees. <i>Remarks:</i> The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Computer Science major: CGS 2060, CGS 3300, CGS 2100, COP 3175, MAC 2233, STA 1013, STA 2023, STA 2122, STA 3123, QMB 3200, ESI 3161.			NOTE: Graduate courses can also be used to satisfy elective requirements. Please see adviser for approval. Graduate courses are subject to graduate fees. <i>Remarks:</i> The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Computer Science major: CGS 2060, CGS 3300, CGS 2100, COP 3175, MAC 2233, STA 1013, STA 2023, STA 2122, STA 3123, QMB 3200, ESI 3161.		

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

Common Prerequisites Manual (CPM) Revision Request

Institution:	Florida International University
Institution Liaison:	Janie Valdes, AVP Enrollment MGMT & SVCS
Date of Submission:	TBD
Program/Degree Type:	Bachelor of Science
Program CIP Code:	11.0101
Program Credit Hours:	120

If applicable, please complete the following if you are notifying us of a change to:

Program Credit Hours:	<p>Current Credit Hours: Click or tap here to enter text.</p> <p>New Credit Hours: Click or tap here to enter text.</p> <p>Effective Date: Click or tap here to enter text.</p>
Limited Access Program Status:	<p><input type="checkbox"/> Change from open access to limited access</p> <p><input type="checkbox"/> Change from limited access to open access</p> <p>Effective Date: Click or tap here to enter text.</p>
Program CIP Code:	<p>Current CIP code: Click or tap here to enter text.</p> <p>New CIP Code: Click or tap here to enter text.</p> <p>Effective Date: Click or tap here to enter text.</p>
Baccalaureate Program Status:	<p><input type="checkbox"/> Notification of a Program Termination – Term/Year Program Should be Removed from the CPM: Click or tap here to enter text.</p> <p><input type="checkbox"/> Notification of New Program – Anticipated Program Implementation Date: Click or tap here to enter text.</p> <p><input type="checkbox"/> Notification of Program Name Change – Revised Program Name: Click or tap here to enter text.</p>

Proposed Revisions(s) to the CPM (check all that apply)

The CIP Code Is Currently in the CPM:

- 1. Make curriculum changes to an existing track at proposing institution
- 2. Add program to a current track without curriculum changes
- 3. Add program to a current track with curriculum changes
- 4. Establish a new track without prerequisites
- 5. Establish a new track with prerequisites
- 6. For numbers 1-5, please provide track information below:
 - a. Track 1 Track 2 Track 3 Track 4 Track 5 Track 6
 - b. Track Name: Computer and Information Science – Computer Science
 - c. If this is a request to establish a new track, please provide justification as to why a new track is needed: [Click or tap here to enter text.](#)

The CIP Code Is Not Currently in the CPM:

- 7. Add program to the CPM without prerequisites
- 8. Add program to the CPM with prerequisites

Proposed Curriculum Actions:

- Add course(s) and/or course alternative(s)
- Eliminate course(s) and/or course alternative(s) (delete course from the CPM)
- Exempt course(s) and/or course alternative(s) (request exception from course)
- Carry over prerequisites from previous CIP without changes (CIP Code change)
- Carry over prerequisites from previous CIP with changes (CIP Code change)
- Other – please specify [Click or tap here to enter text.](#)

Please include the following supporting documentation with this proposal:

- The program page from the [Common Prerequisite Manual](#), if applicable.
- The program requirements for the baccalaureate degree program at your institution.

If this request is for any of the following, do not complete anything further:

- Add program to a current track without curriculum changes
- Establish a new track without prerequisites
- Add program to the CPM without prerequisites

If this request is for any of the following, please complete 1-8, where applicable:

- Make curriculum changes to an existing track at proposing institution
- Carry over prerequisites from previous CIP with no changes
- Carry over prerequisites from previous CIP with changes
- Add program to a current track with curriculum changes
- Establish a new track with prerequisites
- Add program to the CPM with prerequisites

1. For required prerequisite course(s) and/or course alternative(s), please list the following information for each course (add rows if necessary).

Course Prefix and Number	Course Title	Course Alternative	Justification for Course(s)	Credits
PHY 2048	Physics with Calculus I	Science course for science majors, subsetted from FIU University Core Curriculum Group 1	ABET accrediting body now requires a minimum of 6 credits in natural sciences for science majors. The change also allows more students to make progress toward timely degree completion by having additional science course options.	3-4
PHY 2048L	Physics with Calculus I Lab	Corresponding science lab	Same as above.	1
PHY 2049	Physics with Calculus II	Science course for science majors, subsetted from FIU University Core Curriculum Group 2 or CHM 1046	Same as above.	3-4
PHY 2049L	Physics with Calculus II Lab	Corresponding science lab	Same as above.	1
PHY 2048C	Physics with Calculus I (embedded lab)	Science course for science majors, subsetted from FIU University Core Curriculum Group 1 (with lab)	Same as above.	4-5
PHY 2049C	Physics with Calculus II (embedded lab)	Science course for science majors, subsetted from FIU University Core Curriculum Group 2 or CHM 1046 (with lab)	Same as above.	4-5
Total Credits				8-10

- If the course(s) above includes a course(s) that is offered currently at three or fewer FCS or SUS institutions, please provide justification as to why the course is critical for a student’s success in the baccalaureate degree program. Please visit the [Statewide Course Numbering System](#) to determine the number of institutions that offer the course(s) (add rows if necessary). Click here for [instructions](#) on how to navigate the SCNS.

Course(s) Offered at 3 or Less FCS/SUS Institutions	Number of FCS Institutions Currently Offering Course (out of 28)	Number of SUS Institutions Currently Offering Course (out of 12)	Justification for Course(s)
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

- If the request includes courses that are offered only at your institution, explain what options are available to students at other institutions for completing the required courses (add rows if necessary).

Course(s) Offered Only at Proposing Institution	Option(s) at Other Institutions	Explanation of Option(s)
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

- If the request includes exemption from or elimination of a prerequisite course(s) and/or course alternative(s), please list the following information for each course that you would like to be exempt from or eliminate (add rows if necessary).

Course Prefix and Number	Course Title	Justification for Course Elimination/Exemption
Click or tap here to enter text.	Click or tap here to enter text.	<input type="checkbox"/> Exempt from Course <input type="checkbox"/> Elimination of Course Click or tap here to enter text.

8. Other.

For clarity, FIU requests that PHY 2048/L and PHY 2049L and its approved alternatives PHY 2048C and PHY 2049C have approved alternatives (from “and” to “or”) that include courses such as BSC 2010/L and BSC 2011/L from the university’s core curriculum. Doing so meets ABET’s required minimum 6 credits in natural sciences for science majors, which has been significantly reduced from prior years, without adding any additional requirements for students, given that all students must complete the university core curriculum. Thus, the change allows more students to make progress toward timely degree completion by having additional science course options, and enables more seamless transfer or major changes, thereby broadening participation in computing.

FIU will model, in part, FSU’s Track 2, which includes options to complete Physics I/II with labs or Biology I/II and Chemistry I and lab.

Additional Edits

Change required credits from 6.0 hours to 8.0 hours on the CPM “Science course for science majors.”

Amend the CPM narrative at the top so that the last sentence reads: *A total of eight semester hours in science courses, including labs, are required in this degree. Science courses must be intended for science or engineering majors.*

Add to FIU Track 1 the full “Bachelor of Science” title so students may distinguish it from FIU Track 4, which is listed with the full title “Bachelor of Arts.”