



MEMORANDUM

TO: Faculty Senate

FROM: Dr. Susan Ross

DATE: February 25, 2021

SUBJECT: Curriculum Proposal #20-21-21

The intent of this proposal is to propose a Minor in Cybersecurity (Appendix A). This minor would allow interested students from any major with a background in college algebra to develop theoretical knowledge and hands-on experience with the tools and protocols needed to understand, implement, and manage cybersecurity technologies. Cybersecurity has become one of the most demanding and rapidly growing fields in today's technology universe and the proposed minor will help students find employment in this area.

cc: Richard Stephens
Lori Schoonmaker
Stephanie Gabor
Laura Ransom
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Proposal Number: #20-21-21

School/Department/Program: Science and Technology /
Computer Science and Math

Preparer/Contact Person: Dr. Mahmood Hossain

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Date Originally Submitted: 02/17/2021

Revision:

Implementation Date Requested Fall 2021

I PROPOSAL

The intent of this proposal is to propose a Minor in *Cybersecurity* (Appendix A). This minor would allow interested students from any major with a background in college algebra to develop theoretical knowledge and hands-on experience with the tools and protocols needed to understand, implement, and manage cybersecurity technologies. Cybersecurity has become one of the most demanding and rapidly growing fields in today's technology universe and the proposed minor will help students find employment in this area.

II DESCRIPTION OF THE PROPOSAL

A. **Deletion of course(s) or credit(s) from program(s)** Not Applicable

B. **Addition of course(s) or credit(s) to program(s)**

Minor in Cybersecurity

COMP 1110 Introduction to Programming 3

or

COMP 1120 Principles of Programming I

COMP 2220 Fundamentals of Computer Security 3

COMP 3390 Network Security 4

COMP 4415 Vulnerability Assessment 4

BISM 2600 Introduction to Networking Administration 3

COMP 3380 Cryptography 3

or

COMP 3395 Ethical Issues in Computing

or

COMP 4495 Cybersecurity Senior Project

Total hours added 20

C. **Provision for interchangeable use of course(s) with program(s)** Not Applicable

D. **Revision of course content** Not Applicable

E. **Other changes to existing courses** Not Applicable

F. **Creation of new courses** Not Applicable

G. **Attach an itemized summary of the present program(s) affected, if any, and of the proposed change(s).** Not Applicable

III. RATIONALE FOR THE PROPOSAL

1. Quantitative Assessment:

FSU Computer Science also has been offering a Cybersecurity concentration since 2004, which was the first of its kind WV. It was originally intended to be a separate major (in Computer Security), but due to some paperwork and procedural issues, it was not registered as a separate major with HEPC. The Computer Science program has had students in the past who would like to do a major in CS and also in Cybersecurity. But, it is not possible since Cybersecurity is not a major by itself. Some students would actually complete the requirements for both, but get credit for only one officially. A minor in Cybersecurity would allow the students to get a major in CS, and also a minor a Cybersecurity. This will also allow other FSU majors with College Algebra level competency to pursue this minor.

According to Bureau of Labor Statistics Job Outlook, "Employment of information security analysts is projected to grow 31 percent from 2019 to 2029, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks."

Although this is a minor, employment data shows the growing importance of the Cybersecurity field. Students in other fields should be able to benefit from this minor and Computer Science majors will be much better prepared to pursue the career of a cybersecurity analyst.

2. Qualitative Assessment:

The proposed *Cybersecurity* minor will not require any new courses.

IV. PROPOSAL AFFECTING OTHER COLLEGES/SCHOOLS.

The School of Business may have increased enrollment in BISM 2600.

V. PROPOSAL AFFECTING GENERAL STUDIES.

Not Applicable

VI. ADDITIONAL COMMENTS.

Not Applicable

APPENDIX B

**Minor in Cybersecurity
Proposed Program**

Required Courses		HRS
COMP 1110 or COMP 1120	Introduction to Programming Principles of Programming I	3
COMP 2220	Fundamentals of Computer Security	3
COMP 3390	Network Security	4
COMP 4415	Vulnerability Assessment	4
BISM 2600	Introduction to Networking Administration	3
COMP 3380 or COMP 3395 or COMP 4495	Cryptography Ethical Issues in Computing Cybersecurity Senior Project	3
TOTAL HOURS		20