Cybersecurity BS, Information Systems and Technology Emphasis

Emphasis Area Requirements

In addition to the ~~33~~ 24 credit hours of core required coursework, the B.S. Cybersecurity degree with Information Systems and Technology emphasis requires ~~75~~ 81 credit hours of emphasis-specific coursework (~~48~~ 45 general business + ~~27~~ 36 program-specific). Thus, candidates for the B.S. in Cybersecurity degree with Information Systems and Technology emphasis must complete a program of ~~108~~ 105 (~~33~~ 24 core + ~~75~~ 81 emphasis-specific) credit hours of required courses.

For the Information Systems and Technology emphasis all general degree requirements from the College of Business Administration apply.

INFSYS 3806	Managerial Applications of Object-Oriented Programming I	3
INFSYS 3820	Introduction to Systems Administration	3
INFSYS 3830	Data Programming	3
INFSYS 3842	Data Networks and Security	3
INFSYS 3845	Database Management Systems	3
INFSYS 3858	Advanced Security and Information Systems	3
~~SCMA 4347~~	~~Introduction to Project Management~~	~~3~~
INFSYS 3862	Artificial Intelligence Applications for Business	3
INFSYS 3864	Applied Cryptography for Business	3
INFSYS 3866	Cloud Security for Business	3
~~Major Specific Electives (choose 2 from following)~~		~~6~~
Electives		9

Choose three of the following:

~~BUS AD 3090~~	~~Internship in Business Administration~~
INFSYS 3807	Legacy Systems
INFSYS 3815	Object-Oriented Applications in Business
INFSYS 3816	Managerial Application of Object-Oriented Programming II
INFSYS 3817	Advanced Legacy Systems
INFSYS 3818	Management of Software Testing
~~INFSYS 3830~~	~~Data Programming~~
INFSYS 3841	Enterprise Information Systems
INFSYS 3844	Developing Business Applications in .NET
INFSYS 3847	Web Design
INFSYS 3860	Data Integration
~~INFSYS 3862~~	~~Artificial Intelligence Applications for Business~~
~~INFSYS 3864~~	~~Applied Cryptography for Business~~
INFSYS 3890	Internship in Information Systems
INFSYS 3898	Seminar in Information Systems [1]
INFSYS 3899	Independent Study in Information Systems
INFSYS 4847	IT Project Management
or SCMA 4347	Introduction to Project Management
CMP SCI 2261	Object-Oriented Programming
CMP SCI 4700	Computer Forensics
CMP SCI 4732	Introduction to Cryptography for Computer Security

CMP SCI 4750	Introduction to Cloud Computing
CMP SCI 4782	Information Security
MATH 3000	Discrete Structures
SCMA 3345	Predictive Analytics and Data Mining
SCMA 4350	Prescriptive Analytics and Optimization
SCMA 3376/~~MKTG 3776~~	Transportation Security and Risk

Other electives upon approval of Information Systems and Technology department chair

Total Hours 36

[1] If course is offered and topic is approved by the Information Systems and Technology department chair

If other departments are affected by this proposal, please secure "sign-offs" and indicate for each department the following:

Department	Contact Person	Phone #	Objections
Computer Science	Cezary Janikow	516-6352	No

Justification for request:
The proposed changes reduce the credit hours required for the BS (Cybersecurity) with IST emphasis to 120-hours from the current 123-hours while still mapping to the knowledge units required for maintaining UMSL's NSA/DHS Center of Academic Excellence in Cyber Defense Education designation.