Bachelor of Science in Applied Cybersecurity and Information Technology Assessment Plan, 2018-2019, Revision 1

Assessment plans for 2018-2019 will adhere to the rubric as defined by the IIT Assessment Report Evaluation Rubric. One or two program educational objectives and four to five student outcomes will be assessed each term, and all objectives and outcomes will be assessed at least once in each three-year cycle. The full list of objectives and outcomes follows beginning on page 2 below. In addition to the objectives and outcomes listed below, course objectives for each course will be assessed.

This plan will be superseded by the Information Technology and Management Undergraduate Assessment Plan 2019-2010.

Fall 2018:
Program Educational Objectives Assessed: 1, 3
Student Outcomes Assessed: (b), (c), (f), (h)
Student Artifacts: Survey / November 2018 / Evaluation by ITM Curriculum Committee
Assignments / December 2018 / Evaluators: Trygstad/Arora/Dawson
Courses assessed:

Curricular Area	*Course*
Software Development	ITMD 411 Intermediate Software Development
Networking and Communications	ITMO 440 Introduction to Data Networks and the Internet
System Security	ITMS 448 Cyber Security Technologies
Management	ITMS 478 Cyber Security Management

Spring 2019:
Program Educational Objectives Assessed: 2, 4
Student Outcomes Assessed: (a), (d), (e), (f), (i)
Student Artifacts: Survey / April 2019 / Evaluation by ITM Curriculum Committee
Assignments / May 2019 / Evaluators: TBD
Courses assessed:

Curricular Area	*Course*
Software Development	ITM 313 Introduction to Open Source Software Development
Web Design and HCI	ITMD 362 Human Computer Interaction & Web Design
Systems	ITMT 430 System Integration
System Security	ITMS 458 Operating System Security

The following program education objectives will be evaluated for HLC and ABET accreditation purposes.

The Bachelor of Science in Applied Cybersecurity and Information Technology degree produces graduates who are able to:

Program Educational Objective	Required Courses Supporting the Objective
1. Problem solve and create innovative answers to provide technology solutions for the problems of business, industry, government, non-profit organizations, and individuals.	ITMD 411 Intermediate Software Development ITMD 421 Data Modeling & Applications ITMT 430 Systems Integration IPRO 3/497 Interprofessional Project (Not assessed by the department)
2. Perform requirements analysis, design and administration of computer and network-based systems conforming to policy and best practices, and monitor and support continuing development of relevant policy and best practices as appropriate.	ITM 311 Introduction to Software Development ITMD 362 Human-Computer Interaction and Web Design ITMO 440 Introduction to Data Networking & the Internet ITMO 456 Introduction to Open Source Operating Systems (Not included in assessment cycle as role is very narrow) ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration
3. Design and implement an enterprise security program using both policy and technology to implement technical, operational, and managerial controls, which will technically secure enterprise information assets and resources to deter, detect, and prevent the success of attacks and intrusions.	ITMS 443 Vulnerability Analysis and Control ITMS 448 Cyber Security Technologies ITMS 478 Cyber Security Management
4. Investigate information security incidents and violation of law using computer resources in a manner such that all evidence is admissible in a court of law.	ITMS 438 Digital Forensics ITMS 483 Digital Evidence
5. Apply current technical and mathematical concepts and practices in the core information technologies and recognize the need to engage in continuing professional development.	ITM 100 Introduction to Information Technology as a Profession ITMD 411 Intermediate Software Development ITMD 421 Data Modeling & Applications ITMM 471 Project Management for ITM ITMO 440 Introduction to Data Networking & the Internet ITMT 430 Systems Integration

The following student outcomes will be evaluated for ABET accreditation purposes:

Students completing the Bachelor of Science in Applied Cybersecurity and Information Technology will be able to:

Student Outcomes	Required Courses Supporting the Outcome
(a) Analyze a problem, and identify and define the computing requirements appropriate to its solution [ABET Computing 1]	ITM 311 Introduction to Software Development ITM 312 Introduction to Systems Software Programming| ITMD 361 Fundamentals of Web Development ITMD 362 Human-Computer Interaction and Web Design ITMD 411 Intermediate Software Development ITMD 421 Data Modeling & Applications ITMO 440 Introduction to Data Networking & the Internet\ ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration

(b)	Design, implement, and evaluate a computer-based solution to meet a given set of computing requirements [ABET Computing 2]	ITM 301 Intro to Contemp Operating Systems & Hardware I ITM 311 Introduction to Software Development ITM 312 Introduction to Systems Software Programming ITMD 361 Fundamentals of Web Development ITMD 362 Human-Computer Interaction and Web Design ITMD 411 Intermediate Software Development ITMD 421 Data Modeling & Applications ITMO 440 Introduction to Data Networking & the Internet ITMO 456 Introduction to Open Source Operating Systems ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration
(c)	Communicate effectively with a range of audiences about technical information [ABET Computing 3]	ITMD 361 Fundamentals of Web Development ITMD 362 Human-Computer Interaction and Web Design ITMM 471 Project Management for ITM ITMS 448 Cyber Security Technologies IPRO 397/497 Interprofessional Project
(c)	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles [ABET Computing 4]	ITM 100 Introduction to Information Technology as a Profession ITM 311 Intro to Contemp Operating Systems & Hardware I ITMM 471 Project Management for ITM ITMM 485 Legal and Ethical Issues in Information Technology ITMS 438 Digital Evidence ITMT 430 Systems Integration
(e)	Function effectively on teams to establish goals, plan tasks, meet deadlines, manage risk, and produce deliverables [ABET Computing 5]	ITM 100 Introduction to Information Technology as a Profession ITMM 471 Project Management for ITM ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration
(f)	Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems [ABET IT 6]	ITM 311 Introduction to Software Development ITMD 362 Human-Computer Interaction and Web Design ITMD 411 Intermediate Software Development ITMD 421 Data Modeling & Applications ITMM 471 Project Management for ITM ITMO 440 Introduction to Data Networking & the Internet ITMO 456 Introduction to Open Source Operating Systems ITMT 430 Systems Integration
(g)	Assist in the creation of an effective project plan. [IIT BITM/BSACIT]	ITMM 471 Project Management for ITM ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration IPRO 397/497 Interprofessional Project
(h)	Apply security principles and practices to the environmental, hardware, software, and human components of a system. [ABET Cybersecurity 6]	ITMS 443 Vulnerability Analysis and Control ITMS 448 Cyber Security Technologies ITMS 478 Cyber Security Management ITMT 430 Systems Integration
(i)	Analyze and evaluate systems with respect to maintaining operations in the presence of risks and threats. [ABET Cybersecurity 7]	ITMO 456 Introduction to Open Source Operating Systems ITMS 418 Coding Security ITMS 448 Cyber Security Technologies ITMS 458 Operating System Security ITMT 430 Systems Integration

Survey drafting and data collection staff:
    Amber Chattalier, ITM Department Manager
    Angela Jarka, ITM Assistant Department Coordinator

Assessment Evaluators:
ITM Curriculum Committee
The Curriculum Committee evaluates Survey Artifacts and makes recommendations based on evaluations of all assessment artifacts. All full-time faculty members are voting members of the committee should they elect to participate.

Chair:	Ray Trygstad, ITM Associate Chair and Industry Professor
Members:	Jeremy Hajek, Industry Associate Professor
	Louis F. McHugh IV, SAT Computer Systems Manager and Adjunct Industry Professor
	Thomas "T.J." Johnson, Adjunct Industry Professor
	Sheik "Sam" Shamsuddin, Adjunct Industry Professor; College of DuPage Professor and Computer Information System Program Coordinator
Faculty:	C. Robert Carlson, ITM Chair and Professor
	Karl Stolley, Associate Professor (joint appointment)
	Maurice Dawson, Director, Center for Cyber Security and Forensics Education and Assistant Professor
	Yong Zheng, Assistant Professor
	Adarsh Arora, Coleman Entrepreneur-in-Residence and Industry Professor
	William Lidinsky, Industry Professor
	James Pappademas, Industry Professor

All full-time faculty members may be appointed as assessment evaluators for Assignment Artifacts. Appointments will be made at the beginning of each term in which assignments will be assessed, and the Assessment Plan will be updated to reflect these appointments.