Information Systems ASSESSMENT PLAN
School of Information Technology
2024

Program Educational Objectives:

The program educational objectives (PEO) of the information systems program are as follows:

1. Be a successful practitioner in an Information Systems related field or accepted into a graduate program
2. Engage in professional development through continuing education, certifications, professional organizations, or experience
3. Live and work as contributing, well-rounded members of society

Student Outcomes:

At the time of graduation, a student in our information systems program will have the ability to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Support the delivery, use, and management of information systems within an information systems environment.

Relationship of Student Outcomes to Program Educational Objectives

The table below summarizes the relationship between student outcomes and program educational objectives:

Student Outcomes	Program Educational Objectives		
	1.Be successfully employed in an Information Systems related field or accepted into a graduate program	2.Engage in professional development through continuing education, certifications, professional organizations, or	3.Live and work as contributing, well-rounded members of society
1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.	▪	▪	
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.	▪	▪	
3. Communicate effectively in a variety of professional contexts.	▪		▪
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.	▪		▪
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.	▪		▪
6. Support the delivery, use, and management of information systems within an information systems environment.	▪	▪	

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.							
Performance Indicator	**Delivery Methods**	**Courses used for Assessment**	**Assessment Methods**	**Data Needed**	**Assessed Groups**	**Expected level of attainment***	**Timeline**
(a) Conducts system analysis using common modeling techniques to assess a problem.	IT 261, IT 363, IT 378	IT 261	Use rubric 1(a)	IT 261: Assignment(s) that deal with using models to analyze a problem	IT 261 students	60%	Even Fall Semesters
(b) Gathers requirements for a given problem	IT 261, IT 363, IT 378	IT 261	Use rubric 1(b)	IT 261: Assignment(s) that deal with gathering requirements for a given problem	IT 261 students	60%	Even Fall Semesters

* - The expected level of attainment is measured by the minimum percentage of the assessed sample that is scored in the two maximum (Developed/Exemplary) categories of the relevant rubric.

Rubric 1				
	Poor or Non-Existent	Developing	Developed	Exemplary
(a) Use common modeling techniques to analyze a problem	Unable to produce recognizable model	Can create visual model, but model does not fit problem	Creates visual model that reasonably fits problem description	Creates a well-formatted and efficient visual model that represents a good fit for the problem
(b) Perform requirements gathering	Records none or very few requirements	Record some appropriate requirements but misses one or more major requirements	Records all appropriate requirements	Records all appropriate requirements in a well-formatted and logical manner

2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.							
Performance Indicator	**Delivery Methods**	**Courses used for Assessment**	**Assessment Methods**	**Data Needed**	**Assessed Groups**	**Expected level of attainment***	**Timeline**
(a) Conducts system design using common modeling techniques to solve a problem	IT 261, IT 363, IT 378,	IT 261	Use rubric 2(a)	IT 261: Assignment(s) that deal with using models to design a solution to a given problem	IT 261 students	60%	Even Fall semesters
(b) Write a computer program that solves a business problem	IT 168, IT 178, IT 363, IT 378	IT 178	Use rubric 2(b)	IT 178: Completed program that solves a business problem	IT 178 students	60%	Even Spring Semesters
(c) Evaluates alternative solutions for a given problem	IT 262, IT 378	IT 262	Use rubric 2(c)	IT 262: Homework or paper that deals with proposing or evaluating multiple solutions to the same problem	IT 262 students	60%	Even fall semesters

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Rubric 2: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.				
	Poor or Non-Existent	Developing	Developed	Exemplary
(a) Use common modeling techniques to design a solution	Unable to create a recognizable model	Create models but models do not fully represent the problem domain or are not consistent with the specified modeling language	Create models that represent the problem domain and are consistent with the specified modeling language	Creates a well-formed and efficient design model that can be used by an external coder for developing a computer application
(b) Write a computer program that solves a business problem	Program has major syntactical errors or does not run with normal inputs without crashing, code does not solve the given problem	Program produces correct results in only some cases, program crashes with some valid inputs	Program works correctly for all sample data and typical cases, solves the correct problem	Program works correctly for all relevant cases, and addresses at least one unspecified case or implements an extra feature
(c) Evaluates alternative solutions	Student does not correctly identify at least two correct solutions for the given problem, does not use correct methods to evaluate them	Student identifies correct alternatives but evaluates them incorrectly	Student identifies correct alternatives, uses correct evaluation methods and reaches correct conclusions	Student goes beyond requirements, presents detailed and correct evaluation of each alternative solution

3. Communicate effectively in a variety of professional contexts.

Performance Indicator	Delivery Methods	Courses used for Assessment	Assessment Methods	Data Needed	Assessed Groups	Expected level of attainment*	Timeline
(a) Communicates effectively with a range of audiences orally	IT 191, IT 261, IT 262, IT 377, IT 363, IT 378, IT 391, COM 110	IT 262	Use rubric 3(a)	IT 262: Oral Presentation	IT 262 students	60%	Even Fall Semesters
(b) Communicates effectively with a range of audiences in writing	IT 191, IT 262, IT 377, IT 363, IT 378, IT 391, ENG 101, ENG 249	IT 262	Use rubric 3(b)	IT 262: Written paper	IT 262 students	60%	Even Fall Semesters

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Rubric 3. Communicate effectively in a variety of professional contexts.				
Oral communication				
3(a)	Poor or Non-Existent	Developing	Developed	Exemplary
Clarity	Not confident or clear overall	Confident but inconsistent, occasionally trying to sound too technical or intentionally vague	Mostly clear and easy to understand	Clear and confident, very easy to understand
Organization	Not well organized, no logical flow	Inconsistent flow, lacking macro or micro organization	Logically organized at micro and macro level	Entire communication has logical flow, flow is reinforced throughout
Audience	Not aimed at the intended audience	Reflects own knowledge rather than targeting audience, could have taken more efforts to direct talk at audience	Directed at appropriate audience	Targeting audience well enough to enhance communication
Engaging the audience	could not engage audience, little to no interaction with audience	Good beginning and end but not as engaging in between, not enough interaction with audience	Keeps the audience interested and facilitates some interaction	Keeps the audience awake and involved, occasionally adapting to audience's feedback
Delivery	Two or more of: Spoke too fast/too slow, did not address intended questions, inappropriate attire, took significantly longer or shorter than allotted time	One of: Spoke too fast/too slow, too many pauses, awkward body language	Spoke at appropriate pace, comfortable and appropriate body language	Calm. Clear diction. Good tone. Good pacing. Appropriate attire and personal grooming.
Written Communication				
3(b)	Poor or Non-Existent	Developing	Developed	Exemplary
Clarity/ Precision	Too vague or too detailed, significant amount of information may be inaccurate.	Detailed but losing overall picture, or clear at a high level but missing details, attention to length rather than substance. Some information may be inaccurate.	Appropriately detailed and focused at a higher level. Writing is precise and concise.	Completely clear and precise
Organization	Sequence of ideas and paragraphs shows no clear pattern.	Sequence of ideas is often confusing or apparently random, or paragraphing is inadequate	Ideas are grouped into paragraphs and paragraph breaks are used to indicate shifts in focus. The sequence of ideas is clear but not necessarily ideal	Well organized, good use of paragraphs, logical flow
Audience	Not catered to intended audience (wrong assumptions about audience, trying to target all types of audiences)	Not consistently aimed at the audience, occasionally too detailed or too vague	Mostly aimed at the appropriate audience	Aimed exactly at the appropriate audience
Mechanics and Style	Many spelling and grammar errors, no logical flow or document structure	Logical flow but with many spelling and grammar errors, or vice versa, crude document structure	No spelling or grammar errors. Reasonably good logical flow and appropriate document structure	No spelling or grammar errors. Good use of language and good logical flow
Visual aids	No visual aids/too many visual aids. Very poor visual aids.	Few visual aids, some incompletely made, not referred in the text. Some visual aids poorly designed	Appropriate number and kind of visual aids referred by the text at the proper places parts	Appropriate number of well-chosen visual aids that enhance communication

4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.							
Performance Indicator	**Delivery Methods**	**Courses used for Assessment**	**Assessment Methods**	**Data Needed**	**Assessed Groups**	**Expected level of attainment***	**Timeline**
(a) Identify laws that affect Information Technology	IT 250, IT 276, IT 214	IT 214	Use rubric 4(a)	Exam: Question(s) relevant to identifying whether existing software programs can be used in a specific setting based on their licenses	IT 214 students	60%	Data collected odd Fall
(b) Identifies sections of a professional code of ethics that apply to a given situation	IT 214	IT 214	Use rubric 4(b)	Exam: Question(s) that relate sections of a professional code of ethics to a given situation	IT 214 students	60%	Data collected odd Fall
(c) Identify prevailing ethical principles	IT 214	IT 214	Use rubric 4(c)	Exam: Question(s) relevant to various prevailing ethical principles	IT 214 students	60%	Data collected odd Fall

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Rubric 4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.				
	Poor or Non-Existent	Developing	Developed	Exemplary
(a) Identify laws that affect the IT industry and profession	Can't identify any laws that affect the IT industry	Identifies a few laws that affect the IT industry	Identifies laws that affect the IT industry	Identifies laws that affect the industry and can identify laws that will affect a particular system
(b)Identify elements from a professional code of ethics	Can't identify any elements from a professional code of ethics	Identify some elements from a professional code of ethics	Identify most elements from a professional code of ethics	Identify all elements from a code of ethics
(c) Identify prevailing ethical principles	Cannot identify any prevailing ethical principles	Identifies some prevailing ethical principles	Identifies most prevailing ethical principles	Identifies all prevailing ethical principles

5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.							
Performance Indicator	**Delivery Methods**	**Courses used for Assessment**	**Assessment Methods**	**Data Needed**	**Assessed Groups**	**Expected level of attainment***	**Timeline**
(a) Actively participates in team activities	IT 261, 262, 250, IT 276, IT 378, IT 391, Internship survey	IT 378	Use rubric 5(a), 5(b), 5(c)	IT 378: Peer and group reviews from group assignment(s) or project(s) IT 378: Group assignment(s) or project(s)	IT 378 students	60%	Even Spring semesters
(b) Completes team assignments on time							
(c) Submits quality deliverables							

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Rubric 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.				
	Poor or Non-Existent	Developing	Developed	Exemplary
(a) Actively Participates in team activities	Does not contribute to discussions, does not let others express opinions	Contributes occasionally to team activities	Contributes equally in team activities	Contributes a higher share to team activities without taking over the team
(b) Completes team assignments on time	Does not contribute to final deliverable	Completes assigned tasks only partially	Satisfactorily completes assigned parts	Completes assigned parts and helps other team members with their assigned work, initiates and participates in team meetings
(c) Submits quality deliverables	Does not submit deliverables that meet the minimum requirements of the assignment(s) or project(s)	Submit deliverables that meet some requirements of the assignment(s) or project(s)	Submit deliverables that meet most requirements of the assignment(s) or project(s)	Submit deliverables that meet all requirements of the assignment(s) or project(s)

6. Support the delivery, use, and management of information systems within an information systems environment.							
Performance Indicator	**Delivery Methods**	**Courses used for Assessment**	**Assessment Methods**	**Data Needed**	**Assessed Groups**	**Expected level of attainment***	**Timeline**
(a) Identify systems development and deployment constraints [e.g., Political, social, legal, compliance, financial, HCI]	IT 262, IT 250, IT 351, IT 357, IT 378, IT 363, IT 391/398 (internship)	IT 391, Internship survey	Use rubric 6(a)	IT 391: Semester project report Internship survey results	IT 391 students, interns	80% (Internship survey) 70% (IT 391)	IT 391: Odd Spring semesters Internship survey: each Fall Semester
(b) Evaluate applicability of a technology for a specific application environment	IT 261, IT 276, IT 377, IT 363, IT 391/398 (internship)	IT 391, Internship survey	Use rubric 6(b)	IT 391: Semester project report Internship survey results	IT 391 students, interns	80% (Internship survey) 70% (IT 391)	IT 391: Odd Spring semesters Internship survey: each Fall Semester

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Rubric 6. Support the delivery, use, and management of information systems within an information systems environment				
	Poor or Non-Existent	Developing	Developed	Exemplary
(a) Identify systems development and deployment constraints [e.g., Political, social, legal, compliance, financial, HCI]	No awareness of possible constraints for a given system	Able to identify a few obvious constraints	Able to identify most constraints	Able to identify all constraints and suggest possible solutions
(b) Evaluate applicability of a technology for a specific application environment	Unable to evaluate the applicability of a specific technology	Able to identify a few features of a technology making it appropriate for a given application environment	Able to identify most features of a technology making it appropriate for a given application environment	Able to identify the most suitable technology when given a specific environment

IS-2-year assessment cycle (Quick Review for Implementation)			
Semester	Course to be Assessed	What is assessed	Expected level of attainment
Even Fall	IT 261	1(a), 1(b), 2(a)	60%
	IT 262	2(c), 3(a), 3(b)	60%
	Internship survey	6(a), 6(b)	80%
Odd Spring	IT 391	6(a), 6(b)	70%
Odd Fall	IT 214	4(a), 4(b), 4(c)	60%
	Internship survey	6(a), 6(b)	80%
Even Spring	IT378	5(a), 5(b), 5(c)	60%
	IT178	2(b)	60%

Review of Program Educational Objectives	
When	Procedure
Odd spring semesters	1. Assessment committee reviews and makes suggestions if any. 2. Updates are presented and discussed in faculty meeting in April of the year. 3. Approved PEOs are presented to BIAC in October meeting of the year. 4. Approved PEOs are made available to other stakeholders such as selected student groups for feedback.

Review of Student Outcomes	
When	Procedure
Odd spring semesters	1. Assessment committee reviews and makes suggestions if any. 2. Assessment committee sends report to curriculum committee and Director by end of March of the year. 3. At Director's discretion, the updated student outcomes are tabled in faculty meeting. 4. Updated student outcomes are made available to other stakeholders such as selected student groups for feedback.