

Exhibit A:

School of Information Technology (ITK) Assessment Plan

ASSESSMENT PLAN - A – IS & CS School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(a) IS: An ability to apply knowledge of computing and mathematics appropriate to the discipline.	ITK 177, ITK 178, ITK 254, ITK 261, ITK 272, ITK 353, ITK 354, ITK 372, ITK 378	Use rubric to analyze programming assignments from ITK 178.	Programming assignments that pertain to student's understanding of computing and mathematics.	Yes	ITK 178 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Even fall semesters
(a) CS: An ability to apply knowledge of computing and mathematics appropriate to the discipline.	ITK 168, ITK 179, ITK 225, ITK 261, ITK 279, ITK 326, ITK 328, ITK 356, ITK 378	Use rubric to analyze programming assignments from ITK 279	Programming assignments that pertain to student's understanding of computing and mathematics.	Yes	ITK 279 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Even fall semesters

Rubric A	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Ability to apply knowledge of computing and mathematics to solve programming assignments	Programs produce incorrect answers.	Programs produce correct answers in most cases.	Programs produce correct answers in all cases.

ASSESSMENT PLAN - B – IS & CS School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(b) IS & CS: An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.	Lecture/Assignments/ Group and Individual Projects from the following courses: ITK 178 (IS)/179 (CS) ITK 261 (All) ITK 326(CS)/363 (IS)/ 378 (All)	Use rubric to analyze assignments from ITK 261.	1) Example assignment illustrating the analysis of a problem 2) Example assignment illustrating the identification and definition of a solution	Most courses indicate having assignments that address these two factors. It will only be necessary to implement the collection of the data.	Students in ITK 261.	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd spring semesters

Rubric B	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Analysis of a problem	Does not know how to perform an analysis of a defined problem or performs a very limited analysis.	Ability to analyze and identify the majority of the necessary components of a defined problem to develop a solution.	Able to fully analyze a defined problem and determine additional unspecified or hidden concerns.
Identification and definition of a solution	Cannot identify and define any solution to a defined problem or is only able to identify and define a very small part of the solution.	Identifies the key components of the solution to a defined problem and adequately defines the characteristics of the solution.	Identify and define a comprehensive solution to a defined problem, addressing all problem issues.

ASSESSMENT PLAN - C School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(c) IS: An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired standards.		Rubric emphasizing design and implementation	Ten random programming assignments from ITK 178.	Yes	ITK 178	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd semesters
(c) CS: ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired standards.		Rubric emphasizing design and implementation	Ten random programming assignments from ITK 279.	Yes	ITK 279	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd semesters

Program Design Rubric			
Rubric C	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Modularity / Flexibility Coupling / Cohesion	-Uses static data and methods inappropriately. -Uses too few classes. -Classes have cyclical dependencies	-Uses static data and methods appropriately. -Divides program functionality among classes.	-Efficient use of static data and methods. -Optimizes class use
OO Design Encapsulation Inheritance Polymorphism	-Classes don't reflect problem -Class functionality is not self-contained -Data used by class is outside class -Methods that change object state are outside class -Re-implements functionality when it could have been inherited -Incorrectly abstracts problem concepts into inheritance structures -uses class when an interface would be better	-Classes adequately reflect problem -Class functionality is self-contained -Data used by class is inside class -Methods that change object state are inside class -Uses inheritance to reuse code -Correctly abstracts problem concepts into inheritance structures -Demonstrates correct use of interfaces	-Innovative use of classes to solve problem -Class functionality is self-contained -Data used by class is inside class - Methods that change object state are inside class - Implementation demonstrates high-level understanding of inheritance -Exceptional use of interfaces to decouple classes when optimal
Testing	-Testing not used	-Demonstrates use of unit testing	-Demonstrates use of unit, functional, and integration testing

Program Implementation Rubric			
Rubric C	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Parameter passing	-Results are re-calculated many times -Parameters are not passed to functions, or passed improperly	-Results calculated once -Functions receive intermediate results as parameters properly	-Code designed in modular fashion, makes extensive use of parameter passing
Code reuse	-Code not organized for reusability	-Portions of the code could be reused in another program or module	-Most or all of the code could be reused as another program or module
Code readability: Commenting Indentation Variable Naming	-No commenting, or minimal commenting not documenting what the code does -Poor or no indenting -Inconsistent or vague variable naming	-Embedded comments within routines, some header blocks explaining methods - Indenting standards followed -Most variable names are self-explanatory	-Code well documented with comments explaining what accomplishes and how -Indenting and white-space effectively used to delineate code blocks -Variable names clearly indicate purpose of variable, follow accepted naming conventions
API use	-Code does not utilize existing API functions	-Uses API functions at a level appropriate for course	-Goes beyond instruction to find novel API solutions to problems
Efficiency	-Code is much longer than necessary -Code is cobbled together & poorly arranged	-Code is fairly efficient and of appropriate length -Code is arranged in logical fashion	-Code is exceptionally efficient, well organized, and understandable

System Design Rubric			
Rubric C	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Abstraction	-Design abstracted to wrong levels	-Design abstracted properly at each level	-Design abstraction follows OO principles
Modularity / Flexibility	-Monolithic solution, or modules which don't fit problem statement	-Shows good understanding of modular design, appropriate number and types of modules	-Superb use of modules to satisfy system design problem -Shows ability to design modules as needed without excessive number of modules
Testing	-Testing not used	-Demonstrates use of unit testing	-Demonstrates use of unit, functional, and integration testing
Modeling Data Process	-Data flow diagrams incomplete, poor modeling of relationships between entities -No use of process modeling tools	-Data flow diagrams complete and most relationships correct -Process modeling tools used	-Data flow diagrams complete, relationships between entities correct in directionality and ordinality -Process modeling tools used to expedite and facilitate design
Use of SDLC	-Major steps in SDLC skipped or missing	-Performs all major steps in SDLC lifecycle, some incompletely or implemented	-All SDLC lifecycle steps implemented correctly

System Evaluation Rubric			
Rubric C	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Requests for Proposal	-RFPs are either too vague or too specific	-RFPs list only needed requirements	-RFPs are well-written and clearly state project requirements and scope while allowing vendor flexibility
Metrics	-Lacks evidence of understanding of basic system metrics	-Demonstrates appropriate use of basic evaluation metrics	-Demonstrates appropriate use of broad range of metrics
Make/Buy/Outsource Decisions	-Decisions lack structure or appropriate criteria	-Decisions are structured according to evaluation methodology and use appropriate criteria	-Decisions structure is based on problem and evaluation methodology and uses appropriate criteria
Quality Assurance / Testing	-Quality assurance is lacking or is unstructured	-Uses a quality assurance methodology	-Quality assurance methodology is appropriately applied to problem

ASSESSMENT PLAN - D- IS & CS School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(d) IS & CS: An ability to function effectively on teams to accomplish a common goal.	ITK 378	Systems Project PEER evaluations	Summary project results PEER evaluation summary	Yes	ITK 378 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd fall semesters

Rubric D	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
An ability to function effectively on teams to accomplish a common goal.	<p>Students do not have the ability to work effectively on an information systems development project within a group environment.</p> <p>An average grade below 60% in a class project assignment.</p> <p>Unsatisfactory PEER evaluation.</p>	<p>Students have the ability to work effectively on an information systems development project within a group environment.</p> <p>An average grade of 60% to 85% in a class project assignment.</p> <p>Satisfactory PEER evaluation</p>	<p>Students provide positive leadership capabilities working on an information systems development project within a group environment.</p> <p>An average grade above 85% in a class project assignment.</p> <p>Excellent PEER evaluation for leadership direction</p>

ASSESSMENT PLAN - E– IS & CS School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(e) IS & CS: An understanding of professional, ethical, legal, security and social issues and responsibilities.	Various ITK courses through lectures, readings, projects, assignments, and other learning experiences. ITK 160 & ITK 350 ITK 191 & ITK 367	Course tests	Pertinent test questions with student responses.	Not currently; questions will be provided by the Assessment Committee	IS and CS: ITK 160 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd fall semester

Rubric E	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Understands ethical/legal issues and responsibilities	Fewer than 70% of the questions answered correctly	Between 70% and 85% of the questions answered correctly	Over 85% of the questions answered correctly
Understands security issues and responsibilities	Fewer than 70% of the questions answered correctly	Between 70% and 85% of the questions answered correctly	Over 85% of the questions answered correctly
Understands social issues and responsibilities	Fewer than 70% of the questions answered correctly	Between 70% and 85% of the questions answered correctly	Over 85% of the questions answered correctly

Scale (level of performance)

Questions will be chosen that will be scored as either correct or incorrect. There will be no partial credit questions. A minimum of two or three relevant questions will be placed into each final exam of the identified courses. An effort will be made to have a proportional mix of questions across the three dimensions. (For example if there are six total questions in a testing period, then there will be two each from each dimension.)

Acceptability Standard

The results of the identified questions will be aggregated across all identified courses for each testing period. Question results for all students taking the exams will be included in the accumulation. Correct answer percentages will be computed for each dimension and for an overall score. An aggregate score below 70% will be considered Does Not Meet Expectations; an aggregate score of 70% up to 85% will be considered to Meet Expectations and an aggregate score at 85% or better will be considered Exceeds Expectations.

ASSESSMENT PLAN - F School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(f) An ability to communicate effectively with a wide range of audiences in writing.	ENG 101, ENG 249, ITK 160, ITK 191, ITK 279, ITK 363, ITK 367, ITK 378	Use a rubric to analyze papers collected from relevant courses.	Ten Random Samples of student writing.	Yes	ITK 279 students (CS) ITK 363 students (IS)	Assessment Committee using data collected by the instructors of the classes to be assessed	Even spring semesters
(f) IS & CS: An ability to communicate effectively with a wide range of audience orally.	COM 110, ITK 160, ITK 191, ITK 327, ITK 378	A small group of faculty will use a rubric to analyze student presentations in relevant courses.	Data from ten random presentations.	Yes. Arrangements need to be made for appropriate faculty to attend presentations.	ITK 378 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd fall semesters

Writing Rubric			
Rubric F	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Clarity/Precision	Too vague or too detailed, losing perspective, attention to length rather than substance. Information may be inaccurate.	Occasionally difficult to understand, detailed but losing overall picture, or clear at a high level but missing details	Completely clear and precise
Organization	Not well-organized, consistent flow missing	Micro-structure well defined but lacking macro-structure, or vice versa	Logically organized
Audience	Not catered to intended audience (wrong assumptions about audience, trying to target all types of audiences)	Not consistently aiming at the audience, occasionally too detailed or too vague	Aimed exactly at the appropriate audience
Mechanics and Style	Many spelling and grammar errors, no logical flow	Occasional spelling errors and awkward wording, but overall good	No spelling or grammar errors. Flowing language.
Visual aids	No visual aids/too many visual aids. Very poor visual aids.	Could have used more/less visual aids for some parts. One or two visual aids are poorly chosen or confusing.	Appropriate number of well-chosen visual aids that enhance communication

Oral Communication Rubric			
Rubric F	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Clarity	Not assertive or clear overall	Occasionally trying to sound too technical or intentionally vague but good overall	Clear and easy to understand
Organization	Not well organized, no logical flow	Occasionally losing flow but good overall	Logically organized
Audience	Not aimed at audience, reflected speaker's know-how rather than audience	Trying well, but could have taken more efforts to direct talk at audience	Aimed exactly at the appropriate audience
Engaging the audience	Not captivating, could not engage audience leading to no significant feedback	Good beginning and end but not as engaging in between, not enough interaction with audience	Interesting. Keeps the audience awake and involved
Delivery	Spoke too fast/too slow overall, did not address intended questions, inappropriate attire, took significantly longer or shorter than allotted time	Generally good, but spoke too fast/too slow OR too many pauses, occasionally awkward body language	Calm. Clear diction. Good tone. Good pacing. Appropriate attire and personal grooming.

ASSESSMENT PLAN - G- IS & CS School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(g) IS & CS: An ability to analyze the local and global impact of computing on individuals, organizations, and society	ITK 160	Selected ITK 160 student test questions	Test scores that demonstrate students' understanding of the local and global impact of computing on individuals, organizations, and society	Yes	ITK 160 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd fall semesters

Rubric G	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Ability to analyze the local and global impact of computing on <i>individuals</i>	Test score < 70	Test score between 70 and 85	Test score > 85
Ability to analyze the local and global impact of computing on <i>organizations</i>	Test score < 70	Test score between 70 and 85	Test score > 85
Ability to analyze the local and global impact of computing on <i>society</i>	Test score < 70	Test score between 70 and 85	Test score > 85

ASSESSMENT PLAN - H School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(h) Recognition of the need for and an ability to engage in continuing professional development	<p>Comments from ITK 398 surveys</p> <p>Alumni survey</p> <p>Professional organization memberships</p> <p>Discussion of the need for and ability to engage in continuing professional development throughout the program. Students will participate in a survey after their internship experience.</p>	<p>Internship surveys, alumni surveys, memberships in professional organizations</p>	<p>ITK 398 surveys</p> <p>Alumni survey data</p> <p>Surveys of professional organization memberships</p>	<p>Yes</p> <p>Yes</p> <p>No, but can be easily obtained</p>	<p>Random sample of 20 students from ITK 398</p>	<p>Assessment Committee using data collected by the instructors of the classes to be assessed</p>	<p>Once per academic year</p>

Rubric H	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
<p>Students' demonstrates the ability: (1) to gather the necessary information and use that information to solve real problems and (2) recognizes the need to engage in continuing professional development</p>	<p>Did not collect any information that relates to the topics; couldn't solve the assigned problems independently; did not recognize the need for continuing professional development; collected very little information; could understand some of new concepts/technology; or didn't recognize need for continuing professional development</p>	<p>Collected some basic information – most relates to the topic; could understand new concepts/ technology and then apply the knowledge to a new world problem with supervisor's help; recognize some need for continuing professional development</p>	<p>Collected a great deal of information-all relates to the topic; could understand new concepts/technology and then apply the knowledge to a real world problem without supervisor's help</p>

Rubric I	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Select a practical problem	Selects a problem irrelevant to any practical issues and/or elects a problem a little related to practical issues	Selects a problem very close to practical issues	Applies the latest design and analysis frameworks and methodologies
Apply current design & analysis methodologies	Does not apply any or only some of the latest or recent design and analysis frameworks and methodologies	Applies recent design and analysis frameworks and methodologies	Applies a lot of cutting-edge skills and technologies
Apply current technologies, skills & tools	Does not apply any cutting-edge skills and technologies or applies a little cutting-edge skills and technologies	Applies some cutting-edge skills and technologies	Completely solves the problem
Effectively solve a practical problem	Does not solve or only partially solves the problem	Solves most parts of the problem	Applies the latest design and analysis frameworks and methodologies

ASSESSMENT PLAN - J - CS School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(j) CS: An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices	ITK 168, ITK 179, ITK 279, ITK 327, ITK 328, ITK 326	Assess student design documents from ITK 326. Percent correct answers on selected ITK 279 test questions	10 random samples of student project design documents.	Yes Yes	ITK 326 students ITK 279 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Even spring semesters

ITK 326 Design Documents			
Rubric J (CS)	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Data modeling	Too much redundancy in modeling data, poor modeling leading to inefficient databases	Models data correctly, no redundancy in data models	Creates efficient data models and identifies higher order similarities and redundancies leading to efficient data representation
Overall system design	Inefficient design due to inappropriate choice of work flow, redundant data flows, too much use of expensive processes like database access	Chooses algorithms appropriately leading to non-redundant system models, models each process efficiently	Identifies higher order inter-process relationships to create efficient models at macro and unit levels, anticipates future enhancements and incorporates them into current models
Use of appropriate algorithms	Identifies incorrect work flow, chooses inefficient algorithms, does not minimize expensive processes	Chooses appropriate work flows, identifies efficient algorithms to maximize efficiency and minimize expensive processes	Designs optimal work flows over several units, reduces expensive processes at unit and system levels

ITK 279 Test Questions			
Rubric J (CS)	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Thinking about algorithmic solutions	Does not think systematically, brute force approach to solution	Thinks about the problem in an algorithmic/modular way, may/may not arrive at the correct solution but thinking is logical	Identifies similarities with past solutions and reapply techniques to solve current problem, attention to correctness and efficiency
Applying known algorithms/principles	Unable to identify applicability of existing algorithms	Identifies underlying algorithms correctly and uses them appropriately	Identifies novel use of existing algorithms for efficiency and elegance
Choice of algorithms	Does not know which algorithms to choose from, does not identify correctly the parameters behind choosing correct algorithms	Chooses efficient algorithm out of many and systematically explains decisions	Thinks about algorithmic and space efficiency, clearly explains considerations in both and chooses the best one

ASSESSMENT PLAN - J - IS

School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(J) IS: An understanding of processes that support the delivery and management of information systems within a specific application environment.	ITK261, ITK341, ITK 363, ITK 365	Five random samples of selected analysis and design assignments from ITK 261, 341, -	Assignments that pertain to student's understanding of systems development life cycle.	Yes	ITK 261 students ITK 341 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Odd spring semesters

Rubric J (IS)	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Understand the deliverables in each development phases in developing information systems	Does not understand the deliverables in information systems development processes.	Understands major deliverables in information systems development processes and is able to produce major documents of the deliverables.	Fully understands the deliverables in information systems development processes and is able to produce the comprehensive documents of the deliverables.
Understand the process of the management of information systems	Does not understand the processes of managing information systems development.	Identifies the major processes of managing information systems development and adequately defines the characteristics of management practices.	Fully understands the processes of managing information systems development and completely defines the characteristics of management practices.

ASSESSMENT PLAN - K - CS

School of Information Technology

Program Outcomes: (a-k):	Delivery Methods/Strategies	Assessment Methods	Data Needed	Are Data Already Available?	What group(s) will be assessed?	Who will conduct/collect assessment data for the unit?	Timeline
(k) CS: An ability to apply design and development principles in the construction of software systems of varying complexity.	ITK 168, ITK 179, ITK 279, ITK 326	Use a rubric to assess student projects/programs.	Student software projects/programs	Yes	ITK 279 students ITK 326 students	Assessment Committee using data collected by the instructors of the classes to be assessed	Even fall semesters Even spring semesters

Design of Software Systems			
Rubric K (CS)	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Abstraction	Incorrect abstractions, partial or no use of definitive design principles	Identifies modules/units appropriately, follows design principles	Designs using OO principles, identifies correct APIs to minimize redundancy, maximize reuse and model accuracy
Data modeling	Arbitrary data models, no attempt to identify relationships and redundancies	Non-redundant data models, identifies relationships correctly	Incorporates implementation considerations to design theoretically and practically efficient data models
Interface modeling	Arbitrary choice of interface design, does not reflect usage patterns, inconsistent UI	Model identifies and utilizes usage patterns, appropriate use of UI elements, consistency in UI	UI modeling based on actual user studies and interviews, consistency in UI
Documentation	Does not create/maintain design documents, does not follow accepted standards, incomplete documentation of design choices	Creates and maintains design documents regularly, follows accepted practices	Always maintains complete documentation of design and implementation, represents documentation textually and graphically to clearly explain current and facilitate future design choices
Choice of technology	Does not know why a certain language is being used, cannot justify use of libraries	Is able to argue effectively the choice of design language, identifies and justifies use of existing frameworks	Identifies and justifies technology beyond the requirements of the course, maximizes code reuse by identifying existing reliable frameworks
Facilitating testing	Does not test software, testing is arbitrary and incomplete	Uses design, data and process flow to design test cases systematically	Designs and documents test cases, identifies appropriate test cases to maximize testing while optimizing time

Exhibit B:

Matrix Correlating CS Educational Objectives with ABET Program Outcomes

ITK-CS Objectives	CS - ABET Program Outcomes										
	A	B	C	D	E	F	G	H	I	J	K
1	•									•	
2	•	•	•						•	•	•
3				•							
4						•					
5	•	•							•	•	•
6					•		•				
7								•			

ITK – CS Program Objectives

1. Demonstrate knowledge of the major theories and principles of computer science.
2. Demonstrate a proficiency in designing and developing software systems.
3. Demonstrate a proficiency in working in a collaborative environment.
4. Demonstrate a proficiency in making oral presentations and writing technical reports.
5. Demonstrate the ability to apply principles and theories of computer science in a professional setting under supervision.
6. Demonstrate an understanding of the ethical standards of the profession and the social implications of their professional activities.
7. Demonstrate an interest in and the ability to pursue life long learning

CS - ABET Program Outcomes for Accrediting Computing Programs

- A. An ability to apply knowledge of computing and mathematics appropriate to the discipline
 - B. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
 - C. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired standards
 - D. An ability to function effectively on teams to accomplish a common goal
 - E. An understanding of professional, ethical, legal, security and social issues and responsibilities
 - F. An ability to communicate effectively with a wide range of audience
 - G. An ability to analyze the local and global impact of computing on individuals, organizations, and society
 - H. Recognition of the need for and an ability to engage in continuing professional development
 - I. An ability to use current techniques, skills, and tools necessary for computing practice
 - J. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices
- An ability to apply design and development principles in the construction of software systems of varying complexity

Matrix Correlating IS Educational Objectives with ABET Program Outcomes

ITK - IS Objectives	IS - ABET Program Outcomes									
	A	B	C	D	E	F	G	H	I	J
1	•	•	•						•	•
2		•					•			•
3				•						
4						•				
5	•	•							•	•
6					•		•			
7								•		

ITK – IS Program Objectives

1. Demonstrate a proficiency in designing and developing application systems by employing appropriate methodologies, principles, techniques, tools, and languages.
2. Demonstrate knowledge of the impact and importance of information technology in the business environment.
3. Demonstrate a proficiency in working in a collaborative environment.
4. Demonstrate a proficiency in making oral presentations and writing technical reports.
5. Demonstrate the ability to apply principles and theories of information systems in a professional setting under supervision.
6. Demonstrate an understanding of the ethical standards of the profession and the social implications of their professional activities.
7. Demonstrate an interest in and the ability to pursue life long learning.

IS - ABET Program Outcomes for Accrediting Computing Programs

- A. An ability to apply knowledge of computing and mathematics appropriate to the discipline
- B. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- C. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired standards
- D. An ability to function effectively on teams to accomplish a common goal
- E. An understanding of professional, ethical, legal, security and social issues and responsibilities
- F. An ability to communicate effectively with a wide range of audience
- G. An ability to analyze the local and global impact of computing on individuals, organizations, and society
- H. Recognition of the need for and an ability to engage in continuing professional development
- I. An ability to use current techniques, skills, and tools necessary for computing practice
- J. An understanding of processes that support the delivery and management of information systems within a specific application environment.

Exhibit C:

ITK Assessment
Correlation of Courses to Objectives

Objective	IS Courses	CS Courses
A	178	279
B	261	261
C	178	279
D	378	(378)
E	160	160
F	363, 378	279, 378
G	160	160
H	398	398
I	398	398
J	261, 341	279, 326
K		279, 326

Exhibit D:**Assessment Data Collection and Evaluation Schedule**

The table below shows when assessment information will be collected from courses.

Year	Spring	Summer/Early Fall	Fall
2008		ITK 398	ITK 178 & 279
2009	ITK 261, 341 & 363	ITK 398	ITK 160 & 378
2010	ITK 326	ITK 398	ITK 178 & 279
2011	ITK 261, 341 & 363	ITK 398	ITK 160 & 378
2012	ITK 326	ITK 398	ITK 178 & 279

Example:

Materials to be used for data collection

ITK 178

Outcome

Assignment to be used

A	graphing program (#4) - math
C	program #3 – design
F	research paper
J	take-home projects from class 2
K	program #3

Exhibit E:**Faculty Assignments for Assessment**

1. Dr. Mary Elaine Califf	178-a, 279, 326
2. Dr. Amy Chou	261, 378
3. Dr. Galen Crow	160, 363
4. Dr. Terry Dennis	160, 398
5. Dr. Tibor Gyires	279-a, 378
6. Dr. Bryan Hosack	178-c, 261, 378
7. Dr. Chu Jong	279-c, 326
8. Dr. Chung - Chih Li	279-a, 378
9. Dr. Billy Lim	326, 378
10. Dr. Pruthikrai Mahatanankoon	261, 326
11. Dr. Jihad Qaddour	279-c, 398
12. Dr. Bob Rariden	261, 326, 363
13. Dr. Glen Sagers	279-f, 178
14. Dr. Amit Shesh	279-f, 326
15. Dr. Kyoungwon Suh	178, 279-j
16. Dr. Yongning Tang	279-k, 398
17. Dr. Douglas Twitchell	178-a, 279-k
18. Dr. Joaquin Vila-Ruiz	279-j, 378
19. Dr. David Wallace	178-c, 398
20. Dr. James Wolf	160, 363

For Fall '08 semester, ITK 178 (taught by Dr. Suh) and ITK 279 (taught by Dr. Califf) are set to be assessed. The assessment data should be made available to the Assessment Committee by the Wed on the final exam week (**Dec. 10, 2008**). The following faculty members are tasked to do the assessment for the aforementioned two courses and turn in their assessment reports by **Feb. 15, 2009**.

Semester	Course	ABET Outcome	Assessors
Fall 2008	ITK 178	(a)	Califf, Twitchell
Fall 2008	ITK 178	(c)	Hosack, Wallace
Fall 2008	ITK 279	(a)	Gyires, Li
Fall 2008	ITK 279	(c)	Jong, Qaddour
Fall 2008	ITK 279	(f)	Sagers, Shesh
Fall 2008	ITK 279	(j)	Suh, Vila-Ruiz
Fall 2008	ITK 279	(k)	Twitchell, Tang

For Spring '09 semester, ITK 261 and ITK 363 are set to be assessed. The assessors will be determined soon based on the above faculty assignment list.