

Information Technology and Management Assessment Report Spring 2016

1. Identification of learning goal(s) assessed
 - a. Bachelor of Information Technology and Management Program Learning Objective
 - i. 1. Problem solve and create innovative answers to provide technology solutions for the problems of business, industry, government, non-profit organizations, and individuals.
 - b. Bachelor of Information Technology and Management Student Outcomes
 - i. (b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
 - ii. (c) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
 - iii. (d) An ability to function effectively on teams to accomplish a common goal
 - iv. (g) An ability to analyze the local and global impact of computing on individuals, organizations, and society
 - v. (h) Recognition of the need for and an ability to engage in continuing professional development
 - vi. (i) An ability to use current techniques, skills, and tools necessary for computing practice
 - vii. (m) An understanding of best practices and standards and their application
 - viii. (n) An ability to assist in the creation of an effective project plan
 - c. Graduate courses were included in assessment data collection but no graduate program learning objectives were assessed.
2. Description of data collection methodology used
 - a. Data was collected via a survey with questions tailored for each course. Learning goals assessed in the survey were listed in paragraph 1 above. As this was an initial version of this survey additional pilot questions from additional objectives and outcomes were included, as were outcomes and objectives specific to each course. The population surveyed and the goals assessed were as follows:
 - ITM 301 – Student outcomes (h) and (m)
 - ITM 311 – Student outcomes (b) (c) and (i)
 - ITMM 471 – Student outcomes (i) (m) and (n)
 - ITMT 430 – Program Learning Objective 1.
 - Student outcomes (c) (d) and (g)
 - b. 131 surveys were collected in April 2016.
3. Presentation of Results
 - a. Full results of the survey are presented in Appendix A to this report.

- b. Total enrollment in courses surveyed was 207. 131 students responded. The total student response rate was 63.3% and total response for undergraduates was 63.9%. These results do not reflect number of students present in class when the survey was taken, which would yield a more accurate number of responses and response rate. This is a tabulation methodology flaw that will be corrected in future surveys.

4. Discussion of results

- a. The assessment was evaluated by members of the ITM Curriculum Committee in May 2016. Evaluators included:

Ray Trygstad, ITM Associate Chair and Industry Professor

Jeremy Hajek, Industry Associate Professor

James Pappademas, Industry Professor

- b. Summary of Main Findings and Conclusions

- In all but a few isolated cases, a majority of students agreed or strongly agreed that they had achieved the outcome or objective addressed in each question. Overall 81% of students agreed or strongly agreed that they had achieved the outcome or objective addressed in each question.
 - o Significant exceptions to majority agree/strongly agree
 - ITM 311: 29% disagreed or strongly disagreed that they had learned about Linux in this course. Linux is mentioned in the course outcomes but it is not a major emphasis in the course, so this is reasonable. Review of this outcome may be necessary.
 - ITMM 471: Only 40% agreed or strongly agreed that they were able to discuss portfolio management in realizing corporate strategy. 28% were neutral. Portfolio management is a fairly high-level enterprise information technology concept that students at this level may not be able to grasp, which would account for the high level of neutral responses. In contrast, in ITMM 571 which covers similar material to this course at the graduate level, 100% agreed that they were able to discuss portfolio management in realizing corporate strategy.
 - o There are a scattered number of Disagree/Strongly Disagree responses in each course. Typically they represent two or three of the respondents in each course. This is probably a reasonable number of students who just “don’t get it” in most courses. In an ideal world there would be no responses at this level, but we judge this to be an acceptable level.
- Assessment of specific objectives and outcomes.
 - o ITM 301 Student Outcome (h) question: *I have learned about the need for, & gained the ability to engage in, continuing professional development* – 57% strongly agree, 35% agree, 4% neutral, 4% disagree. 92% represents a nearly complete agreement by students that they have attained this outcome.
 - o ITM 301 Student Outcome (m) question: *I understand best practices & standards & how to apply them* – 74% strongly agree, 17% agree, 4% neutral, and 4% strongly disagree. 91% represents a nearly complete agreement by students that they have attained this outcome.

- o ITM 311 Student outcome (b) question: *I have gained an ability to analyze a problem & identify & define computing requirements appropriate to its solution* – 50% strongly agree, 25% agree, 25% neutral. This represents a significant percentage of students who agree that they have attained this outcome.
- o ITM 311 Student outcome (c) question: *I have learned to design, implement, & evaluate a computer-based program to meet desired needs* – 63% strongly agree, 25% agree, 13% neutral. 88% represents a very significant percentage of students who agree that they have attained this outcome.
- o ITM 311 Student outcome (i) questions: This outcome, which addresses an “*ability to use current techniques, skills, and tools necessary for computing practice*” is measured by response to questions 1 through 9, which in the aggregate reflect this outcome. 70% to 96% of responses to these questions were agree/strongly agree that they have attained these outcomes, which is a significant percentage of students in agreement.
- o ITMM 471 Student outcome (i) questions: This outcome, which addresses an “*ability to use current techniques, skills, and tools necessary for computing practice*” is measured by response to questions 1 through 7, 9 10, and 12, which in the aggregate reflect this outcome. Except for question discussing portfolio management as noted above, 66% to 94% of responses to these questions were agree/strongly agree that they have attained these outcomes, which is a significant percentage of students in agreement.
- o ITMM 471 Student outcome (m) question: *I understand & can apply best practices & standards in project management*– 55% strongly agree, 22% agree, 28% neutral represents a very significant percentage of students who agree that they have attained this outcome. We are not able to account for the high neutral response.
- o ITMM 471 Student outcome (n) question: *I am able to create, or assist in the creation of, an effective project plan* – 56% strongly agree, 28% agree, 17% are neutral. 84% represents a very significant percentage of students who agree that they have attained this outcome. This is the key course for measurement of this outcome so this is a very positive result.
- o ITMT 430 Program Learning Objective 1 question: *I can problem solve and create innovative answers to provide technology solutions for the problems of business, industry, government, non-profit organizations & individuals* – 36% strongly agree, 64% agree. 100% represents complete agreement by students that they have attained this outcome. As this is the program capstone course, this is a reasonable result.
- o ITMT 430 Student outcomes (c) question: *In this course I learned how to integrate hardware & software into a complete information system to meet identified user needs as a solution to a defined business problem* – 36% strongly agree, 36% agree, 9% neutral, 18% disagree represents a reasonable majority of students who agree that they have attained this outcome. This is the first offering of this course and clearly there is room for improvement.

- o ITMT 430 Student outcomes (d) question: *I am able to function effectively as a member of a team to accomplish a common goal* – 36% strongly agree, 64% agree. 100% represents complete agreement by students that they have attained this outcome. As this is the program capstone course, this is a reasonable result.
- o ITMT 430 Student outcomes (g) question: *I can describe the local & global impact of computing on individuals, organizations & society & the need to engage in continuing professional development including how that can be achieved* – 18% strongly agree, 45% agree, 36% neutral, represents a majority of students who agree that they have attained this outcome. This is the first offering of this course and there is room for improvement.

5. Description of improvement plans

- a. Add use of statistics to ITMT 430 System Integration through the inclusion of project metrics. Industry Associate Professor Jeremy Hajek and Industry Professor Ray Trygstad will be responsible for incorporating this into course content prior to the next offering of the course, which will be in Spring 2017.
- b. ITMT 430 System Integration, as the program capstone course, appears to be overburdened with student outcomes. Additionally, students noted in comments that earlier introduction of system integration concepts would benefit them throughout their degree program. Since some of the student outcomes, particularly (e) *An understanding of professional, ethical, legal, security and social issues and responsibilities* and (g) *An ability to analyze the local and global impact of computing on individuals, organizations, and society* are not congruent with the other goals of a program capstone course, shifting these into an earlier course would make sense.

Consequently, creation of an entry-level system integration course, possibly ITM 330, Introduction to Information Systems and System Integration, would seem appropriate. It became policy in January 2016 that the learning objectives for the university core curriculum course offered by each department, Introduction to the Profession (ITP), could be met by courses other than ITP and need not be offered in the first year of the program. Consequently the ITP Learning Objectives could be folded into the introductory systems course, which would logically follow ITM 301 and ITM 311. Necessary curricular changes would include deletion of ITM 100, Introduction to the Profession, and creation of the new three hour ITM 330 course. This could be done with no net change to hours required for degree completion by changing the natural science and engineering requirement from eleven hours to ten hours. This would be permitted because the mathematics/natural science and engineering requirement is sixteen hours, and we already require six hours of mathematics.

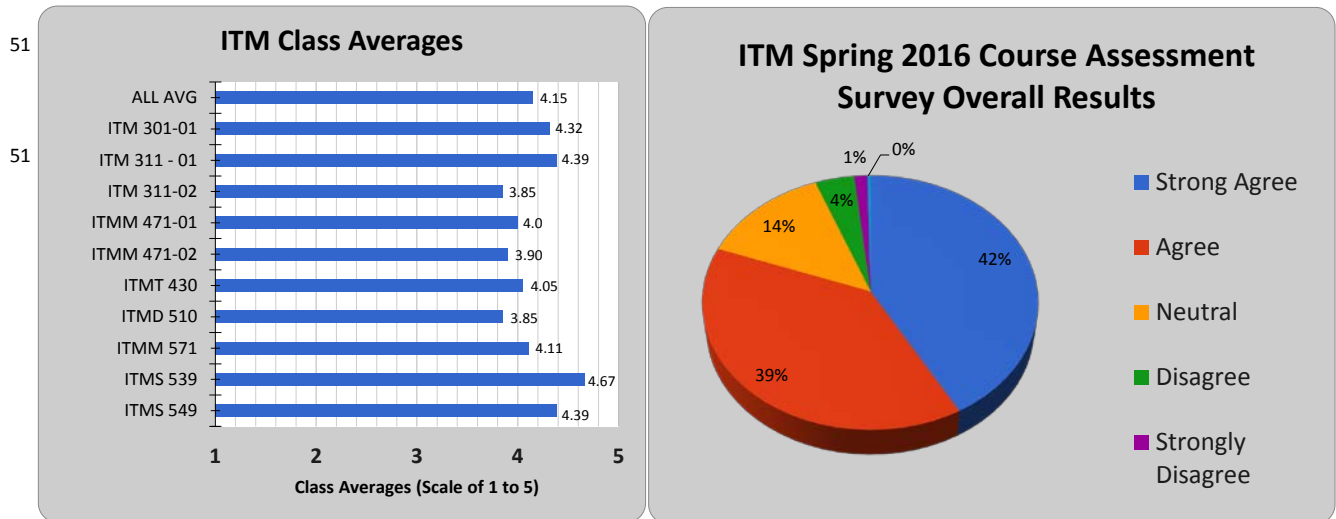
This proposed change to the curriculum will be the responsibility of Industry Professor Ray Trygstad who will create a complete proposal and present it to the Curriculum Committee no later than the first meeting of academic year 2016-2017, but earlier if possible.

- c. Determine if portfolio management is a reasonable element to include in ITMM 471, Project Management for ITM. Industry Associate Professor Dennis Hood, instructor for this course, will research this and notify the Curriculum Committee of his result prior to the next offering of this course in Fall 2016.

- d. No changes to ITM 301 or ITM 311 are proposed or warranted as outcomes are being met and they are properly meeting appropriate roles in the curriculum.
- 6. Assessment process recommendations
 - a. Surveys
 - i. When using a survey, limit questions to objectives and outcomes being assessed.
 - ii. Make use of multiple questions for each objective and outcome to better assess each one. Continuing to assess each course learning objective provides valuable feedback for faculty and the curriculum oversight process, and will provide evidence for the broadly worded Student Outcomes such as *demonstrate an ability to use current techniques, skills, and tools necessary for computing practice*.
 - iii. Eliminate compound questions that assess more than one objective or outcome.
 - b. Assignments
 - i. Project plan assignments were collected for ITMM 471 as evidence of Student Outcome (n) *an ability to assist in the creation of an effective project plan*, but were not graded against a rubric. In the future, the Curriculum Committee needs to:
 - a) Specifically identify individual assignments in courses that represent appropriate assessment student artifacts, or assist faculty in preparation of one or more assignments that will be appropriate assessment student artifacts.
 - b) Assist faculty with the preparation of grading rubrics that assess attainment of specific outcomes or objectives.
 - c) Incorporate assignments with properly-prepared rubrics into the formal assessment for the term.
- 7. Assessment Plan for 2016-2017
 - a. Included in the attached **Information Technology and Management Assessment Plan for Undergraduate Degrees, 2016-2018** (Appendix B)

SPRING 2016 ITM COURSE ASSESSMENT RESULTS OVERVIEW

ALL COURSES - Course learning objectives



Survey questions were pulled directly from the course syllabus and sent to instructors to review/approve. All survey questions used the following rating scale.

1=Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

<u>Strongly Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Left Blank</u>
591	547	191	58	19	5
1406	1406	1406	1406	1406	1406

ALL AVG	ITM 301-01	ITM 311-01	ITM 311-02	ITMM 471-01	ITMM 471-02	ITMT 430	ITMD 510	ITMM 571	ITMS 539	ITMS 549
4.15	4.32	4.39	3.85	4.00	3.90	4.05	3.85	4.11	4.67	4.39

<u>Strong Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>Left Blank</u>
42%	39%	14%	4%	1%	0%

Total Surveys Collected: 131

ITM 301: INTRODUCTION TO CONTEMPORARY OPERATING SYSTEMS & HARDWARE I

Instructor: Louis McHugh
Spring Enrollment: 23

Day/Time: M, 5:30-9:05 PM, Tech
Surveys collected: 23

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I understand how to troubleshoot & repair a PC.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
43%	57%	0%	0%	0%	0%	4.43

Q2 I know the workings of a PC in a networked Environment from a hardware level to an OS level.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
35%	52%	13%	0%	0%	0%	4.22

Q3a I learned about Linux in this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
35%	13%	22%	22%	9%	0%	3.43

Q3b I learned about virtualization in this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
43%	26%	22%	4%	4%	0%	4.00

Q3c I learned about tools for managing IT in this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
61%	39%	0%	0%	0%	0%	4.61

Q3d I learned to trouble shoot hardware & software in this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
78%	17%	4%	0%	0%	0%	4.74

Q3e I learned about OS utilities & Cloud computing in this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
30%	48%	17%	4%	0%	0%	4.04

Q4 I learned about laws, regulations & compliance frameworks that affect IT professionals.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
39%	52%	9%	0%	0%	0%	4.30

Q5 I have an understanding of networking, physical media, devices, protocols & standards.

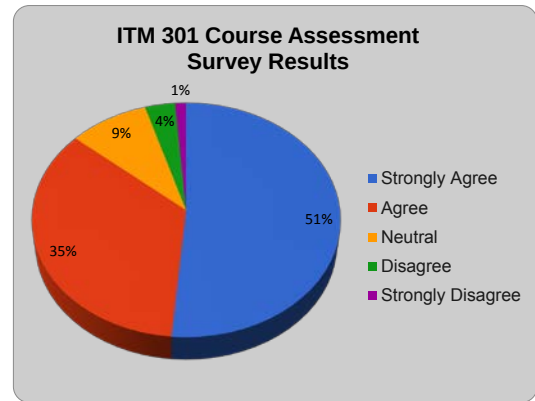
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
57%	35%	4%	4%	0%	0%	4.43

Q6 I developed proficiency with motherboards, buses, architecture, memory,

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
61%	35%	0%	4%	0%	0%	4.52

Q7 This course enabled me to have an understanding of operating systems & architecture (Windows, Linux & Mac).

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	36%	9%	5%	0%	0%	4.32



Overall Class Average 4.32

Q8 The course covered current events in computing, especially events related to information security topics.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
57%	26%	17%	0%	0%	0%	4.39

Q9 I have learned about the need for, & gained the ability to engage in, continuing professional development.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
57%	35%	4%	4%	0%	0%	4.43

Q10 I understand best practices & standards & how to apply them.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
74%	17%	4%	0%	4%	0%	4.57

What suggestions do you have to improve your learning experience?

[Link to Survey](#)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1	10	13					23	50	52	0	0	0
Q2	8	12	3				23	40	48	9	0	0
Q3a	8	3	5	5	2		23	40	12	15	10	2
Q3b	10	6	5	1	1		23	50	24	15	2	1
Q3c	14	9					23	70	36	0	0	0
Q3d	18	4	1				23	90	16	3	0	0
Q3e	7	11	4	1			23	35	44	12	2	0
Q4	9	12	2				23	45	48	6	0	0
Q5	13	8	1	1			23	65	32	3	2	0
Q6	14	8		1			23	70	32	0	2	0
Q7	11	8	2	1			22	55	32	6	2	0
Q8	13	6	4				23	65	24	12	0	0
Q9	13	8	1	1			23	65	32	3	2	0
Q10	17	4	1		1		23	85	16	3	0	1
	165	112	29	11	4		321					
Totals:	51%	35%	9%	3%	1%		Total surveys: 23					
							Total responses: 321					

ITM 311, section 01: INTRODUCTION TO SOFTWARE DEVELOPMENT

Instructor: Katherine Papademas Day/Time: M/W, 3:15-4:55 PM, IT 14C5-1
Spring Enrollment: 22 Surveys collected: 16

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I had the opportunity to write, compile, execute, troubleshoot & resolve problems using Java programming language including Java Application or Java Applet.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
100%	0%	0%	0%	0%	0%	5.00

Q2 I can develop, understand & implement the concept of Object Oriented Programming & Methodology in program development.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
56%	31%	6%	6%	0%	0%	4.38

Q3 I can develop & identify important Java standard libraries & classes.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
53%	27%	7%	13%	0%	0%	4.20

Q4 I feel confident in my ability to locate & use Help Resources.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
38%	44%	13%	6%	0%	0%	4.13

Q5

I gained experience in developing & writing Object Oriented Java Programs.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
69%	25%	6%	0%	0%	0%	4.63

Q6 I learned about software application, development theory & concepts.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	38%	13%	0%	0%	0%	4.38

Q7 I am able to write & resolve programming problems using Java Language.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
75%	6%	6%	13%	0%	0%	4.44

Q8 I understand Java programming syntax, control structure & Java programming concepts.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
63%	13%	19%	6%	0%	0%	4.31

Q9 I know how to utilize Java Graphical User Interface in program writing.

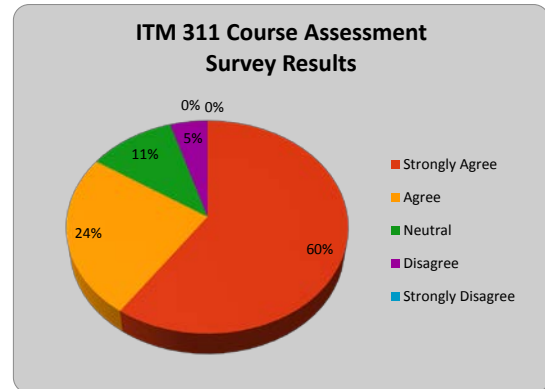
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
44%	31%	19%	6%	0%	0%	4.13

Q10 I have learned to design, implement, & evaluate a computer-based program to meet desired needs.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
63%	25%	13%	0%	0%	0%	4.50

Q11 I have gained an ability to analyze a problem & identify & define computing requirements appropriate to its solution.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	25%	25%	0%	0%	0%	4.25



Overall Class Average

4.39

Q12 I have an understanding of "speaking" & writing program Java.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
56%	31%	6%	6%	0%	0%	4.38

What suggestions do you have to improve your learning experience?
[Link to Survey](#)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1	16						16	80	0	0	0	0
Q2	9	5	1	1			16	45	20	3	2	0
Q3	8	4	1	2			15	40	16	3	4	0
Q4	6	7	2	1			16	30	28	6	2	0
Q5	11	4	1				16	55	16	3	0	0
Q6	8	6	2				16	40	24	6	0	0
Q7	12	1	1	2			16	60	4	3	4	0
Q8	10	2	3	1			16	50	8	9	2	0
Q9	7	5	3	1			16	35	20	9	2	0
Q10	10	4	2				16	50	16	6	0	0
Q11	8	4	4				16	40	16	12	0	0
Q12	9	5	1	1			16	45	20	3	2	0
	114	47	21	9	0	0	191					
Totals:	60%	25%	11%	5%	0%		Total surveys: 16					
							Total responses: 191					

ITM 311, section 02: INTRODUCTION TO SOFTWARE DEVELOPMENT

Instructor: Katherine Papademas Day/Time: T, 5:30-9:05 PM, SB 112E
Spring Enrollment: 17 Surveys collected: 6

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I had the opportunity to write, compile, execute, troubleshoot & resolve problems using Java programming language including Java Application or Java Applet.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17

Q2 I can develop, understand & implement the concept of Object Oriented Programming & Methodology in program development.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17

Q3 I can develop & identify important Java standard libraries & classes.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	33%	33%	0%	0%	0%	4.00

Q4 I feel confident in my ability to locate & use Help Resources.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	33%	33%	0%	0%	0%	4.00

Q5 I gained experience in developing & writing Objected Oriented Java

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	50%	0%	0%	0%	0%	4.50

Q6 I learned about software application, development theory & concepts.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	17%	17%	17%	0%	0%	4.00

Q7 I am able to write & resolve programming problems using Java Language.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	33%	17%	0%	0%	0%	4.33

Q8 I understand Java programming syntax, control structure & Java programming concepts.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	33%	17%	0%	0%	0%	4.33

Q9 I know how to utilize Java Graphical User Interface in program writing.

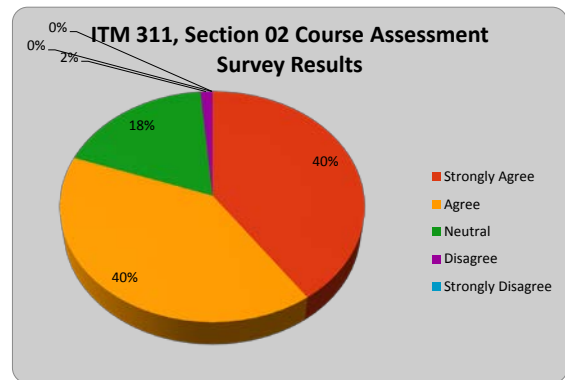
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17

Q10 I have learned to design, implement, & evaluate a computer-based program to meet desired needs.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17

Q11 I have gained an ability to analyze a problem & identify & define computing requirements appropriate to its solution.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17



Overall Class Average 3.85

Q12 I have an understanding of "speaking" & writing program Java.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
50%	33%	17%	0%	0%	0%	4.33

What suggestions do you have to improve your learning experience?

[Link to Survey](#)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1	2	3	1				6	10	12	3	0	0
Q2	2	3	1				6	10	12	3	0	0
Q3	2	2	2				6	10	8	6	0	0
Q4	2	2	2				6	10	8	6	0	0
Q5	3	3					6	15	12	0	0	0
Q6	3	1	1	1			6	15	4	3	2	0
Q7	3	2	1				6	15	8	3	0	0
Q8	3	2	1				6	15	8	3	0	0
Q9	2	3	1				6	10	12	3	0	0
Q10	2	3	1				6	10	12	3	0	0
Q11	2	3	1				6	10	12	3	0	0
Q12	3	2	1				6	15	8	3	0	0
	29	29	13	1	0	0	72					
Totals:	40%	40%	18%	1%	0%		Total surveys: 6					
							Total responses: 72					

ITMM 471 - 01 PROJECT MANAGEMENT FOR ITM

Instructor: Dennis Hood Day/Time: T/TH, 11:25AM - 12:40PM, LS 121
Spring Enrollment: 32 Surveys collected: 18

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I can describe the current state & best practices of information technology project management using appropriate terminology.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
17%	56%	17%	0%	11%	0%	3.67

Q2 I know how to analyze project management decisions in terms of technical, cost-benefit & human resource considerations.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
39%	50%	6%	6%	0%	0%	4.22

Q3 I can assess the risk of exposure of an IT project & develop plans for mitigating & managing risks.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	44%	6%	0%	0%	0%	4.44

Q4 I know how to develop mechanisms for capturing & reporting objective measure of project progress.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	44%	22%	0%	0%	0%	4.11

Q5 I can apply frameworks for effective planning & decision making regarding IT project management.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
17%	67%	6%	11%	0%	0%	3.89

Q6 I can describe the human resource, financial & technical responsibilities of an IT project manager, including the unique challenges associated with outsourcing, off-shoring & globalization.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
39%	44%	11%	6%	0%	0%	4.17

Q7 I am able to discuss the impact of quality management & process maturity on IT project management.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
28%	50%	11%	11%	0%	0%	3.94

Q8 I understand & can apply best practices & standards in project management.

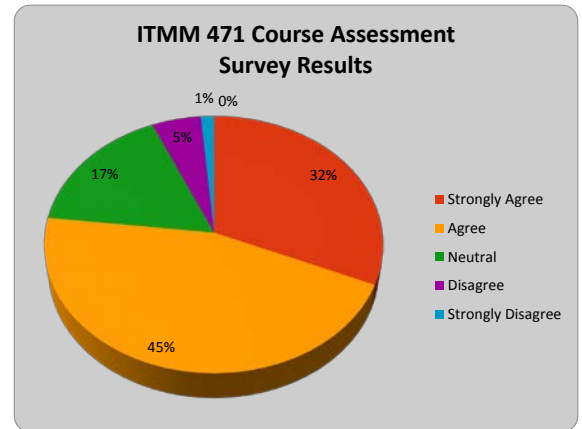
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	22%	39%	6%	0%	0%	3.83

Q9 I can discuss the role of portfolio management in realizing corporate strategic vision.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
17%	33%	28%	17%	6%	0%	3.39

Q10 I have gained a solid foundation in project management concepts with an emphasis on information technology projects & the unique challenges they pose.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
28%	56%	17%	0%	0%	0%	4.11



Overall Class Average 4.00

Q11 I am able to create, or assist in the creation of, an effective project plan.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
56%	28%	17%	0%	0%	0%	4.39

Q12 I understand historical context & current best practices for managing IT-related projects including technical, financial & human resource issues.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
22%	50%	22%	6%	0%	0%	3.89

What suggestions do you have to improve your learning experience?

[Link to Survey](#)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1	3	10	3		2		18	15	40	9	0	2
Q2	7	9	1	1			18	35	36	3	2	0
Q3	9	8	1				18	45	32	3	0	0
Q4	6	8	4				18	30	32	12	0	0
Q5	3	12	1	2			18	15	48	3	4	0
Q6	7	8	2	1			18	35	32	6	2	0
Q7	5	9	2	2			18	25	36	6	4	0
Q8	6	4	7	1			18	30	16	21	2	0
Q9	3	6	5	3	1		18	15	24	15	6	1
Q10	5	10	3				18	25	40	9	0	0
Q11	10	5	3				18	50	20	9	0	0
Q12	4	9	4	1			18	20	36	12	2	0
	68	98	36	11	3	0	216					
Totals:	31%	45%	17%	5%	1%			Total surveys:				
								Total responses:				216

ITMM 471 - 02 PROJECT MANAGEMENT FOR ITM

Instructor: Dennis Hood Day/Time: Internet Section
Spring Enrollment: 11 Surveys collected: 2

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I can describe the current state & best practices of information technology project management using appropriate terminology.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	100%	0%	0%	0%	0%	4.00

Q2 I know how to analyze project management decisions in terms of technical, cost-benefit & human resource considerations.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	50%	0%	0%	0%	0%	4.50

Q3 I can assess the risk of exposure of an IT project & develop plans

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	50%	50%	0%	0%	0%	3.50

Q4 I know how to develop mechanisms for capturing & reporting objective measure of project progress.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	100%	0%	0%	0%	0%	4.00

Q5 I can apply frameworks for effective planning & decision making regarding IT project management.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	50%	0%	0%	0%	0%	4.50

Q6 I can describe the human resource, financial & technical responsibilities of an IT project manager, including the unique challenges associated with outsourcing, off-shoring & globalization.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	0%	50%	0%	0%	0%	4.00

Q7 I am able to discuss the impact of quality management & process maturity on IT project management.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	100%	0%	0%	0%	0%	4.00

Q8 I understand & can apply best practices & standards in project management.

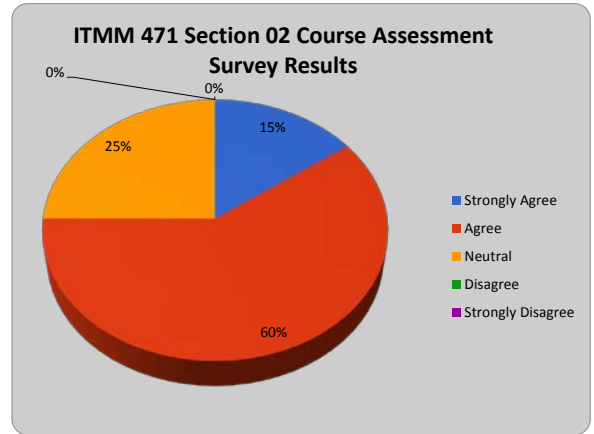
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
No data	No data	No data	No data	No data	No data	No data

Q9 I can discuss the role of portfolio management in realizing corporate strategic vision.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	50%	50%	0%	0%	0%	3.50

Q10 I have gained a solid foundation in project management concepts with an emphasis on information technology projects & the unique challenges they pose.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	50%	50%	0%	0%	0%	3.50



Overall Class Average 3.90

Q11

I am able to create, or assist in the creation of, an effective project plan.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
No data	No data	No data	No data	No data	No data	No data

Q12

I understand historical context & current best practices for managing IT-related projects including technical, financial & human resource issues.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
0%	50%	50%	0%	0%	0%	3.50

What suggestions do you have to improve your learning

No comments were submitted

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1		2					2	0	8	0	0	0
Q2	1	1					2	5	4	0	0	0
Q3		1	1				2	0	4	3	0	0
Q4		2					2	0	8	0	0	0
Q5	1	1					2	5	4	0	0	0
Q6	1		1				2	5	0	3	0	0
Q7		2					2	0	8	0	0	0
Q8						2	0	0	0	0	0	0
Q9		1	1				2	0	4	3	0	0
Q10		1	1				2	0	4	3	0	0
Q11						2	0	0	0	0	0	0
Q12		1	1				2	0	4	3	0	0
	3	12	5	0	0	4	20					
Totals:	15%	60%	25%	0%	0%							
						Total surveys:	2					
						Total responses:	20					

ITMT 430: SYSTEM INTEGRATION

Instructor: Jeremy Hajek Day/Time: M, 10:00-11:40 AM, TS 2030
Spring Enrollment: 14 Surveys collected: 11

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I can problem solve and create innovative answers to provide technology solutions for the problems of business, industry, government, non-profit organizations & individuals.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
36%	64%	0%	0%	0%	0%	4.36

Q2 I know how to identify & analyze user needs.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
27%	64%	9%	0%	0%	0%	4.18

Q3 I can identify & define computing requirements appropriate to the problem solution & take them into account in the selection, creation, evaluation, & administration of computer & network based systems.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
27%	36%	36%	0%	0%	0%	3.91

Q4 I know how to apply current technical & mathematical concepts & practices in the core information technologies & recognize the need to engage in continuing professional development.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
55%	9%	9%	27%	0%	0%	3.91

Q5 In this course I learned how to integrate hardware & software into a complete information system to meet identified user needs as a solution to a defined business problem.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
36%	36%	9%	18%	0%	0%	3.91

Q6 I have an understanding of legal, security & social issues & responsibilities of information systems and can demonstrate ethics.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
20%	50%	30%	0%	0%	10%	3.90

Q7 I can describe the local & global impact of computing on individuals, organizations & society & the need to engage in continuing professional development including how that can be achieved.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
18%	45%	36%	0%	0%	0%	3.82

Q8 Based on identified user needs, I can demonstrate the use of user centered design in the selection, creation, evaluation & administration of an information system.

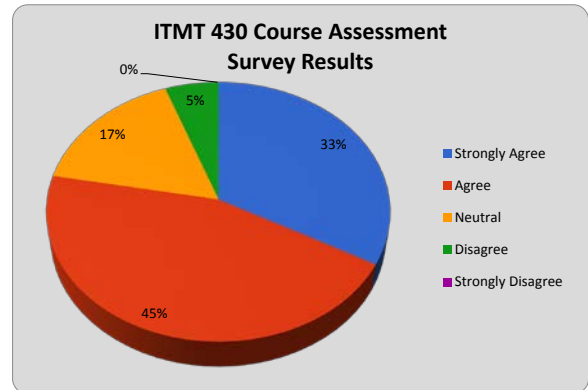
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
27%	64%	9%	0%	0%	0%	4.18

Q9 I am able to function effectively as a member of a team to accomplish a common goal.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
36%	64%	0%	0%	0%	0%	4.36

Q10 I can apply key systems integration architecture, methodologies & technologies in the constructions of an information system using industry best practices.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
45%	18%	27%	9%	0%	0%	4.00



Overall Class Average 4.05

What suggestions do you have to improve your learning experience?

[Link to Survey](#)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1	4	7					11	20	28	0	0	0
Q2	3	7	1				11	15	28	3	0	0
Q3	3	4	4				11	15	16	12	0	0
Q4	6	1	1	3			11	30	4	3	6	0
Q5	4	4	1	2			11	20	16	3	4	0
Q6	2	5	3			1	10	10	20	9	0	0
Q7	2	5	4				11	10	20	12	0	0
Q8	3	7	1				11	15	28	3	0	0
Q9	4	7					11	20	28	0	0	0
Q10	5	2	3	1			11	25	8	9	2	0
	36	49	18	6	0	1	109					
Totals:	33%	45%	17%	6%	0%			Total surveys:				
								Total responses:	109			

ITMD 510: OBJECT ORIENTED APP DEVELOPMENT

Instructor: James Papademas Day/Time: M/W, 8:35-9:50 AM, SB 111 & Internet
Spring Enrollment: 51 (Combined) Surveys collected: 25

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I understand the basic Object Oriented programming concepts including Inheritance & Encapsulation, Interfaces, Polymorphism & Object Analysis & Design (OOAD).

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
48%	40%	8%	4%	0%	0%	4.32

Q2 I am able to apply Test Drive Development methodologies including Junit testing.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
12%	36%	36%	8%	8%	0%	3.36

Q3 I understand packaging & deployment of Java SE.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
32%	36%	20%	4%	8%	0%	3.80

Q4 I know how to develop mechanisms for capturing & reporting objective measure of project progress.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
28%	28%	28%	12%	4%	0%	3.64

Q5 I know how to perform file handling (IO) & file stream processing including knowledge of Socket Programming (NIO).

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
16%	44%	24%	12%	4%	0%	3.56

Q6 I can process strings using Regular Expressions.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
36%	44%	8%	4%	8%	0%	3.96

Q7 I can describe Software development terminology such as Coupling & Cohesion.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
24%	44%	20%	4%	8%	0%	3.72

Q8 I can write Object Oriented Java Standard Edition (SE) code.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
32%	56%	4%	8%	0%	0%	4.12

Q9 I can create a Java based Graphical User Interface with Java FX & can locate application functionality from a JDBC API database.

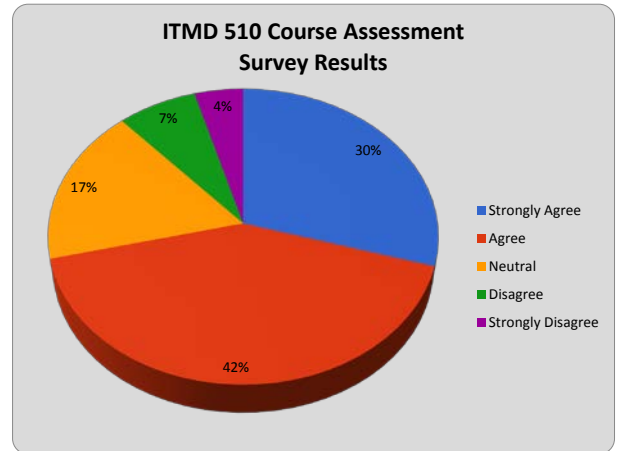
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
40%	40%	8%	8%	4%	0%	4.04

Q10 I can author well-constructed code & software documentation & can utilize an IDE to develop, error trap, test & debug Java SE code.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
28%	48%	16%	8%	0%	0%	3.96

What suggestions do you have to improve your learning experience?

[Link to Survey](#)



Overall Class Average 3.85

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses
Q1	12	10	2	1			25
Q2	3	9	9	2	2		25
Q3	8	9	5	1	2		25
Q4	7	7	7	3	1		25
Q5	4	11	6	3	1		25
Q6	9	11	2	1	2		25
Q7	6	11	5	1	2		25
Q8	8	14	1	2			25
Q9	10	10	2	2	1		25
Q10	7	12	4	2			25
	74	104	43	18	11	0	250
Totals:	30%	42%	17%	7%	4%	Total surveys:	25
						Total responses:	250

60	40	6	2	0
15	36	27	4	2
40	36	15	2	2
35	28	21	6	1
20	44	18	6	1
45	44	6	2	2
30	44	15	2	2
40	56	3	4	0
50	40	6	4	1
35	48	12	4	0

ITMM 571 PROJECT MANAGEMENT FOR ITM

Instructor: Dennis Hood Day/Time: M/W, 11:25AM - 12:40PM, SB 212
Spring Enrollment: 19 Surveys collected: 12

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I can describe the current state & best practices of information technology project management using appropriate terminology.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
17%	75%	8%	0%	0%	0%	4.08

Q2 I know how to analyze project management decisions in terms of technical, cost-benefit & human resource considerations.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
58%	33%	8%	0%	0%	0%	4.50

Q3 I can assess the risk of exposure of an IT project & develop plans for mitigating & managing risks.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17

Q4 I know how to develop mechanisms for capturing & reporting objective measure of project progress.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
33%	50%	17%	0%	0%	0%	4.17

Q5 I can apply frameworks for effective planning & decision making regarding IT project management.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	33%	17%	0%	0%	0%	4.33

Q6 I can describe the human resource, financial & technical responsibilities of an IT project manager, including the unique challenges associated with outsourcing, off-shoring & globalization.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
17%	58%	25%	0%	0%	0%	3.92

Q7 I am able to discuss the impact of quality management & process maturity on IT project management.

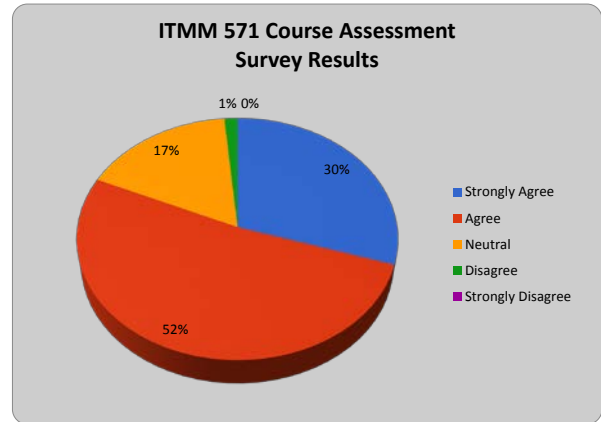
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
8%	67%	25%	0%	0%	0%	3.83

Q8 I understand & can apply best practices & standards in project management.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
25%	33%	42%	0%	0%	0%	3.83

Q9 I can discuss the role of portfolio management in realizing corporate strategic vision.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
50%	50%	0%	0%	0%	0%	4.50



Overall Class Average 4.11

Q10 I have gained a solid foundation in project management concepts with an emphasis on information technology projects & the unique challenges they pose.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
8%	75%	8%	8%	0%	0%	3.83

Q11 I am able to create, or assist in the creation of, an effective project plan.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
25%	50%	17%	8%	0%	0%	3.92

Q12 I understand historical context & current best practices for managing IT-related projects including technical, financial & human resource issues.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
40%	40%	20%	0%	0%	0%	4.20

What suggestions do you have to improve your learning experience?

No comments were submitted.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses					
Q1	2	9	1				12	10	36	3	0	0
Q2	7	4	1				12	35	16	3	0	0
Q3	4	6	2				12	20	24	6	0	0
Q4	4	6	2				12	20	24	6	0	0
Q5	6	4	2				12	30	16	6	0	0
Q6	2	7	3				12	10	28	9	0	0
Q7	1	8	3				12	5	32	9	0	0
Q8	3	4	5				12	15	16	15	0	0
Q9	6	6					12	30	24	0	0	0
Q10	1	9	1	1			12	5	36	3	2	0
Q11	3	6	2	1			12	15	24	6	2	0
Q12	2	2	1				5	10	8	3	0	0
	41	71	23	2	0	0	137					
Totals:	30%	52%	17%	1%	0%		Total surveys: 12					
							Total responses: 137					

ITMS 539: STEGANOGRAPHY

Instructor: Bill Lidinsky Day/Time: M, 5:30-9:30 PM, RC 250
Spring Enrollment: 12 Surveys collected: 12

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 This course taught me a detailed understanding of cyber steganography & steganalysis & I am able to demonstrate an understanding of hiding schemes for many standard carrier files such as JPEG, MP3, BMP & GIF.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
83%	17%	0%	0%	0%	0%	4.83

Q2 I am able to investigate a file that might be a carrier of covert information & assess the possibility that covert information might exist; an in some cases may be able to determine the software that was used.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
67%	17%	17%	0%	0%	0%	4.50

Q3 I believe I have become at least somewhat of an expert in a facet of steganography related to my team project.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
75%	25%	0%	0%	0%	0%	4.75

Q4 This course gave me practical experience in steganography forensics.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
75%	25%	0%	0%	0%	0%	4.75

Q5 I have a solid foundation in steganography.

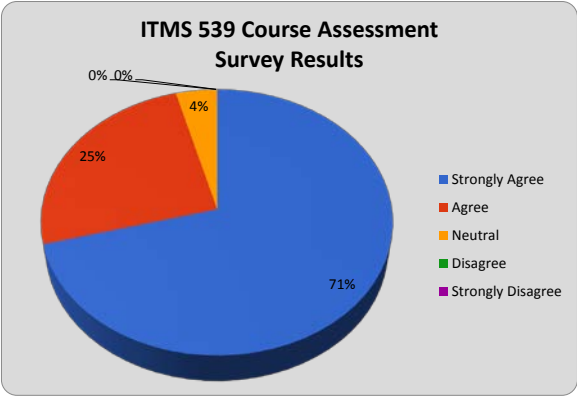
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
58%	42%	0%	0%	0%	0%	4.58

Q6 I have developed applied research experience as a result of my team project.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	<u>AVG</u>
67%	25%	8%	0%	0%	0%	4.58

What suggestions do you have to improve your learning experience?

[Link to Survey](#)



Overall Class Average 4.67

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses
Q1	10	2					12
Q2	8	2	2				12
Q3	9	3					12
Q4	9	3					12
Q5	7	5					12
Q6	8	3	1				12
Totals:	51	18	3	0	0	0	72
	71%	25%	4%	0%	0%		Total surveys: 12

Total responses: 72

50	8	0	0	0
40	8	6	0	0
45	12	0	0	0
45	12	0	0	0
35	20	0	0	0
40	12	3	0	0

ITMS 549: CYBER SECURITY TECHNOLOGIES: PROJECTS & ADVANCED METHODS

Instructor: Bill Lidinsky Day/Time: R, 6:30-10:00 PM, RC 250
Spring Enrollment: 6 Surveys collected: 6

TALLIES: COURSE LEARNING OBJECTIVES

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q1 I am an expert or close to it in the topic of my team applied research project & knowledgeable in related technical areas.

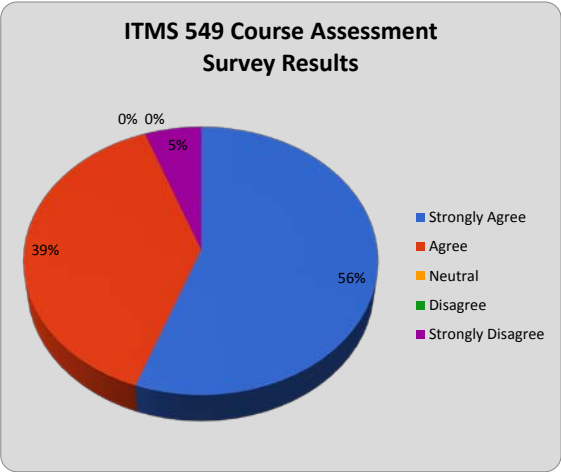
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
17%	67%	0%	0%	17%	0%	3.67

Q2 This course prepared me for creating technical papers of publishable quality.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
50%	50%	0%	0%	0%	0%	4.50

Q3 This course prepared me for making presentations at a professional conference & gave me experience in doing it.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	AVG
100%	0%	0%	0%	0%	0%	5.00



What suggestions do you have to improve your learning experience?
[Link to Survey](#)

Overall Class Average 4.39

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Left blank	Total responses
Q1	1	4			1		6
Q2	3	3					6
Q3	6						6
	10	7	0	0	1	0	18
Totals:	167%	117%	0%	0%	17%		6

5	16	0	0	1
15	12	0	0	0
30	0	0	0	0

Total responses: 18

STUDENT COURSE SURVEYS: SPRING 2016				
ITM 301: INTRODUCTION TO CONTEMPORARY OPERATING SYSTEMS & HARDWARE I				
Instructor: Louis McHugh	Day/Time: M, 5:30-9:05 PM, Tech South			
Spring Enrollment: 23	Surveys collected: 23			

"The hands on portion is the best, should have more."

STUDENT COURSE SURVEYS: SPRING 2016				
ITM 311, section 01: INTRODUCTION TO SOFTWARE DEVELOPMENT				
Instructor: Katherine Papademas	Day/Time: M/W, 3:15-4:55 PM, IT 14C5-1			
Spring Enrollment: 22	Surveys collected: 16			

"This course has been fun and I feel I have learned a lot. To me, this course seems more like Intro to Java instead of Intro to Software Development. It might be useful to go more in-depth on what software development looks like in industry. Katherine is a thorough & engaging professor & this was my most enjoyable class this semester."

"Excellent course!"

"This class had too many assignments which took too much time but that was probably necessary to learn this language."

STUDENT COURSE SURVEYS: SPRING 2016				
ITM 311, section 02: INTRODUCTION TO SOFTWARE DEVELOPMENT				
Instructor: Katherine Papademas	Day/Time: M/W, 3:15-4:55 PM, IT 14C5-1			
Spring Enrollment: 22	Surveys collected: 16			

"Like the professor! I think we need a TA or someone to help the professor do work and help students with labs."

"Not enough creative methods of teaching... would like more interesting and real world problem solving opportunities than cut and dry lecturing."

STUDENT COURSE SURVEYS: SPRING 2016				
ITMM 471 - 01 PROJECT MANAGEMENT FOR ITM				
Instructor: Dennis Hood	Day/Time: T/TH, 11:25AM - 12:40PM, LS 121			
Spring Enrollment: 32	Surveys collected: 18			

"Professor Hood knows his stuff! Had fun learning with him!"

"More real life examples of what to do & what not to do."

"Possibly implement more discussions into the class to assess if students are grasping the concepts and proper knowledge for calculations."

STUDENT COURSE SURVEYS: SPRING 2016**ITMT 430: SYSTEM INTEGRATION**

Instructor: Jeremy Hajek	Day/Time: M, 10:00-11:40 AM, TS 2030				
Spring Enrollment: 14	Surveys collected: 11				

"This course should require a lot more prerequisites like cloud computing, back end development and scripting languages."

"Graduating this semester, first time using Git. Wish they had more back end courses and connecting front to back. Felt I wasted time taking certain ITM courses I didn't find applicable. Wish there was an earlier class of systems integration that put web design and more into a project course."

STUDENT COURSE SURVEYS: SPRING 2016**ITMD 510: OBJECT ORIENTED APP DEVELOPMENT**

Instructor: James Papademas	Day/Time: M/W, 8:35-9:50 AM, SB 111 & Internet				
Spring Enrollment: 51 (Combined)	Surveys collected: 25				

"It would be great if the professor can provide a little more intense info on every topic."

"I have nothing positive to say"

"More system textbook may be better."

"Please, provide labs on JUnit, regex & JavaFX. Also, it's a good idea to allow students to decide on their project more than 1 month prior the submission and approval."

"In all honesty I had to drop this class. I urge the department to review the video and match the content taught with the labs and exams assigned. Taking this class was frustrating especially during Midterms when he hadn't even bothered to plan for online students. The TA never responded to emails. The professor did respond in the shortest manner possible. The slides were not his own creation which was fine but did not match the labs. The labs (which he created as we went along) had very poor instructions and forced you to code with bad form. I wanted to take this with a different professor next term but there is no one else teaching the subject. I recommend getting a fully devoted professor with published office hours who can lesson plan and/or investing in good lecturers or teaching assistants."

STUDENT COURSE SURVEYS: SPRING 2016**ITMS 539: STEGANOGRAPHY**

Instructor: Bill Lidinsky	Day/Time: M, 5:30-9:30 PM, RC 250				
Spring Enrollment: 12	Surveys collected: 12				

"Forensecure was one of the greatest experiences I have ever had!"

"More practical examples and exercises on steganography. More class discussions about steganalysis. Gather enough resources for projects so that we don't need to worry about some accessories or testing programs."

STUDENT COURSE SURVEYS: SPRING 2016

ITMS 549: CYBER SECURITY TECHNOLOGIES: PROJECTS & ADVANCED METHODS

Instructor: Bill Lidinsky	Day/Time: R, 6:30-10:00 PM, RC 250				
Spring Enrollment: 6	Surveys collected: 6				

"Bill did a great job teaching the class!"

NOTE: No comments were submitted by respondents to ITMM 471-02.

Information Technology and Management Assessment Plan for Undergraduate Degrees, 2016-2018 (Revision 2)

Assessment plans for 2016-2018 will adhere to the rubric as defined by the IIT Assessment Report Evaluation Rubric. One program educational objective and six to seven student outcomes will be assessed each term, and all objectives and outcomes will be assessed twice in each three-year cycle. The full list of objectives and outcomes follows beginning on page 3 below. Separate roll-out strategies will be used for the undergraduate and graduate programs. This document addresses the courses in the Undergraduate Program.

Spring 2016:

Program Educational Objectives Assessed: 1

Student Outcomes Assessed: (b), (c), (d), (g), (h), (i), (m), (n)

Student Artifacts: Survey / April 2016 / Evaluation by ITM Curriculum Committee members
131 artifacts collected / Full information is provided in the Information
Technology and Management Assessment Report Spring 2016

Courses assessed:

<i>Curricular Area</i>	<i>Course</i>
Systems	ITM 301 Introduction to Contemporary Hardware and Operating Systems I
Software Development	ITM 311 Introduction to Software Development
IT Management	ITMM 471 Project Management for ITM
Systems	ITMT 430 System Integration

Fall 2016:

Program Educational Objectives Assessed: 3

Student Outcomes Assessed: (c), (e), (f), (h), (i), (k)

Student Artifacts: Survey / November 2016 / Evaluation by ITM Curriculum Committee
Assignments / December 2016 / Evaluator(s) TBD

Courses assessed:

<i>Curricular Area</i>	<i>Course</i>
Data Management	ITMD 421 Data Modeling and Applications
Networking and Communications	ITMO 440 Introduction to Data Networks and the Internet
System Security	ITMS 448 Cyber Security Technologies

Spring 2017:

Program Educational Objectives Assessed: 1, 2

Student Outcomes Assessed: (a), (b), (c), (j), (k), (l), (m)

Student Artifacts: Survey / April 2017 / Evaluation by ITM Curriculum Committee
Assignments / May 2017 / Evaluator(s) TBD

Courses assessed:

<i>Curricular Area</i>	<i>Course</i>
Web Design and HCI	ITMD 362 Human Computer Interaction and Web Design
Software Development	ITMD 411 Intermediate Software Development
Systems	ITMT 430 System Integration

Fall 2017:

Program Educational Objectives Assessed: 3

Student Outcomes Assessed: (a), (d), (e), (h), (l), (n)

Student Artifacts: Survey / November 2017 / Evaluation by ITM Curriculum Committee
Assignments / December 2017 / Evaluator(s) TBD

Courses assessed:

<i>Curricular Area</i>	<i>Course</i>
Systems	ITM 301 Hardware and Operating Systems
Software Development	ITM 311 Introduction to Software Development
IT Management	ITMM 471 Project Management for ITM

Spring 2018:

Program Educational Objectives Assessed: 1

Student Outcomes Assessed: (b), (c), (g), (j), (k), (m)

Student Artifacts: Survey / April 2018 / Evaluation by ITM Curriculum Committee
Assignments / May 2018 / Evaluator(s) TBD

Courses assessed:

<i>Curricular Area</i>	<i>Course</i>
Web Design and HCI	ITMD 362 Human Computer Interaction and Web Design
Data Management	ITMD 421 Data Modeling and Applications
Systems	ITMT 430 System Integration

Fall 2018:

Program Educational Objectives Assessed: 2

Student Outcomes Assessed: (c), (f), (i), (k), (m), (n)

Student Artifacts: Survey / November 2018 / Evaluation by ITM Curriculum Committee
Assignments / December 2018 / Evaluator(s) TBD

Courses assessed:

<i>Curricular Area</i>	<i>Course</i>
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

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

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. Apply current technical and mathematical concepts and practices in the core information technologies and recognize the need to engage in continuing professional development.	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:

Student Outcomes	Required Courses Supporting the Outcome
(a) An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline	ITM 311 Introduction to Software Development ITM 312 Introduction to Systems Software Programming ITMO 440 Introduction to Data Networking & the Internet ITMT 430 Systems Integration
(b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution	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

Student Outcomes	Required Courses Supporting the Outcome
(c) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs	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
(d) An ability to function effectively on teams to accomplish a common goal	ITMD 362 Human-Computer Interaction and Web Design ITMM 471 Project Management for ITM ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration IPRO 397/497 Interprofessional Project
(e) An understanding of professional, ethical, legal, security and social issues and responsibilities	ITM 301 Intro to Contemp Operating Systems & Hardware I ITMD 362 Human-Computer Interaction and Web Design ITMD 421 Data Modeling & Applications ITMM 471 Project Management for ITM ITMO 456 Introduction to Open Source Operating Systems ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration IPRO 397/497 Interprofessional Project
(f) An ability to communicate effectively with a range of audiences	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
(g) An ability to analyze the local and global impact of computing on individuals, organizations, and society	ITMT 430 Systems Integration IPRO 397/497 Interprofessional Project
(h) Recognition of the need for and an ability to engage in continuing professional development	ITM 301 Intro to Contemp Operating Systems & Hardware I ITM 311 Introduction to Software Development 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 IPRO 397/497 Interprofessional Project

Student Outcomes	Required Courses Supporting the Outcome
(i) An ability to use current techniques, skills, and tools necessary for computing practice.	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 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
(j)(1) An ability to use and apply current technical concepts and practices in the core information technology of human computer interaction	ITMD 362 Human-Computer Interaction and Web Design ITMT 430 Systems Integration
(j)(2) An ability to use and apply current technical concepts and practices in the core information technology of information management .	ITMD 421 Data Modeling & Applications ITMT 430 Systems Integration
(j)(3) An ability to use and apply current technical concepts and practices in the core information technology of programming .	ITM 311 Introduction to Software Development ITM 312 Introduction to Systems Software Programming ITMD 411 Intermediate Software Development ITMT 430 Systems Integration
(j)(4) An ability to use and apply current technical concepts and practices in the core information technology of networking .	ITMO 440 Introduction to Data Networking & the Internet ITMO 456 Introduction to Open Source Operating Systems ITMT 430 Systems Integration
(j)(5) An ability to use and apply current technical concepts and practices in the core information technology of web systems and technologies .	ITMD 361 Fundamentals of Web Development ITMD 362 Human-Computer Interaction and Web Design ITMT 430 Systems Integration
(k) An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.	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
(l) An ability to effectively integrate IT-based solutions into the user environment.	ITM 301 Intro to Contemp Operating Systems & Hardware I ITMD 362 Human-Computer Interaction and Web Design ITMT 430 Systems Integration

Student Outcomes	Required Courses Supporting the Outcome
(m) An understanding of best practices and standards and their application.	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 ITMM 471 Project Management for ITM ITMO 456 Introduction to Open Source Operating Systems ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration
(n) An ability to assist in the creation of an effective project plan.	ITMM 471 Project Management for ITM ITMS 448 Cyber Security Technologies ITMT 430 Systems Integration IPRO 397/497 Interprofessional Project

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 Associate 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)

Adarsh Arora, Coleman Entrepreneur-in-Residence and Industry Professor

William Lidinsky, Interim Director, Center for Cyber Security and Forensics Education and Industry Professor

James Pappademas, Industry Professor

Yong Zheng, Senior Lecturer

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.