STUDENT LEARNING ASSESSMENT REPORT

PROGRAM: MS Information Technology (IT)

SUBMITTED BY: Diane Murphy
DATE: October 9, 2015
BRIEFLY DESCRIBE WHERE AND HOW ARE DATA AND DOCUMENTS USED TO GENERATE THIS REPORT BEING STORED:
BLACKBOARD COURSES FOR ACADEMIC YEAR 2014-2015   FILING CABINET IN BALLSTON 4040 ROOM 419
INSTITUTIONAL EFFECTIVENESS REPORTS AVAILABLE FROM HTTP://WWW.MARYMOUNT.EDU/HOME/FACULTY-AND-STAFF/OFFICE-OF-PLANNING-INSTITUTIONAL-EFFECTIVENESS

EXECUTIVE SUMMARY

Marymount's information technology (IT) program offers advanced study to prepare individuals for leadership roles in the IT industry, whether managing enterprise infrastructure, designing computer systems with current systems life cycle methodologies, creating and maintaining high-quality computer software, engaging in cybersecurity management or technical operations, or managing complex IT projects. A dual degree in information technology and cybersecurity, a variety of electives, a research or project option, and specialized tracks enable individuals to tailor their graduate studies to their career needs in government or industry.

Students have the option of choosing a specialized track to complete their program including:

- Cybersecurity
- Health Care Informatics
- Project Management and Technology Leadership
- Software Engineering

The program is designed to provide the academic foundation for those seeking to become a chief information officer (CIO) or attain a similar senior IT position.

The full-time faculty for this program conduct research in information cybersecurity, data management, open source software, technology for health care, and other areas. Adjunct faculty work in the field in areas such as requirements analysis, cybercrime detection, hardware design, software development, database management, cybersecurity, and operations management.

)

Learning Outcome	Year of Last Assessment	Assessed This Year	Year of Next Planned Assessment
Identify and solve complex problems in business and society using information technology, including the application and management of complex systems of hardware, software, networks, databases, and computer security.	**2008-2009** **2011-2012**	**XX**	2017-18
Exercise leadership in analyzing, designing, developing, and integrating IT solutions that meet industry-wide standards using system engineering principles.	2007-2008 2010-2011 2013-2014		2016-17
Manage enterprise-wide information systems to ensure that an organization is competitive in today's global and high performance environment following strong ethical principles.	2007-2008 2010-2011 2013-2014		2016-17
Use specialized knowledge and skills to obtain skills and, if applicable, certifications in areas such as software development, database and storage technology, computer security, IT governance, and project management.	**2008-2009** **2011-2012**	**XX**	2017-18
Optimize the effectiveness of IT in an organization by effective IT governance, development of IT strategic plans, implementation of IT policies, and assurance of ethical awareness of the enterprise use of information	2009-2010		2015-16
Communicate effectively with others, including technologists and mangers in the IT field and users and managers in the business context.	2008-2009 2009-2010 2011-2012		2015-16
Work effectively as a member or as a leader of a cross-disciplinary team in the IT field where teamwork is essential to the success of a time-critical project.	**2007-2008** **2009-2010**	**XX**	2016-17
Develop the knowledge and skills required to pursue life-long learning in areas relating to information technology and to adapt to an ever-changing, global technology and business environment through information literacy activities relevant to a fast-changing discipline.	2010-2011 2013-2014		2015-16

The Marymount IT graduate program (including the parallel program the MS in Cybersecurity) continues to grow and attract more students, particularly from individuals who want to change careers. Some have a good background in information technology, others do not. A few students make use of the 5-year program and attended Marymount as an undergraduate. In 2014-15, the MS IT was in the top five graduate program with some 56 students in fall 2014, as well as about 12 students in dual degree programs with the MS in information technology as one component.

The first learning outcome assessed was the ability to identify and solve problems in business and society using information technology. This is basics of one of the major job outcomes for the program, the role of the business analyst. Two of the three measures were met showing the necessary skills are acquired at the end of the program. One measure, including results earlier in the program was not met.

The second learning outcome assesses was the ability to obtain a certification in one of the areas of specialty in the program. Certifications are an important part of the information technology job landscape and while we do not teach to these certifications, we do try to cover the same knowledge base in several of the courses. Two of the measures were met which showed students confidence in their ability to pass the certifications, However, the third measure, students actually taking and passing the certification as not met.

The third learning outcome assessed was based on one of the most requested soft-skills in the information technology field: teamwork. Again at the end of the program, students were confident of their ability to work in teams 92 outcome measures) but they did not meet the standard in the first course in the program (the third outcome).

Describe how the program's outcomes support Marymount's mission, strategic plan, and relevant school plan:

The MS in Information Technology program is fully compliant with the graduate education mission of Marymount University and the outcomes include both the opportunity to acquire a high level of competency in the IT field (identify and solve complex problems in business and society) and to gain experience in the application of advanced knowledge and skills (including leadership, strategy, management, and technical competence). It also includes skills that are commonly requested by today's employers (understanding the business value of IT, ethical data-driven decision-making, problem solving, communication skills and the ability to work in teams). Finally, it recognizes the changing nature of the IT field and hence the need for life-long learning based on skills in information literacy and the ability to keep current with changes in the field.

In the 2011-12 school year the President articulated a new "vision" for the university. The items in the vision statement that apply specifically to the graduate IT program include:

Academic Excellence

- Emphasize inquiry learning at all levels and provide students and faculty with opportunities for research collaboration..
- Offer programs that enable graduate students to develop the knowledge, skills, and values needed for professional success.
- Ensure a personalized education through small classes and faculty/student collaboration.
- Integrate an emphasis on ethics throughout the curriculum.
- Encourage cross-disciplinary collaboration.

Inquiry learning is a key in the program and all professors (full-time and part-time) are encouraged to use activities, in-classroom or as homework assignments, to reinforce the subject matter presented in the classroom. These activities may occur through individual and group assignments. We constantly evaluate the subject matter covered in the program to ensure we match the knowledge and skills required in the work place, as identified by our own knowledge of the field and from recommendations from close attention to the certification requirements in the field. Graduate classes average around 16 students, large enough to have a variety of opinions and experiences but small enough to allow for individual attention and extensive faculty/student collaboration. We offer some courses in an on-line format, offer a variety of courses in the summer semester thus allowing students to customize their program of studies to their individual pace, and needs. Ethics are an integral part of each course but particularly emphasized in the required course IT550, Ethics, Law, and Policy in the Information Age. Cross-disciplinary collaboration has been enhanced by the dual degree programs and the addition of students with a business or health care management has increased the interdisciplinary discussions in class and the number of interdisciplinary projects in the capstone project.

Community Engagement

- Use DC-area resources and new technologies to enhance the global perspective of the Marymount community.

The IT program has a very international focus with students from Nepal, Ethiopia, India, and Saudi Arabia being the largest subgroups. In addition, our teaching pool is similarly international with representatives from Great Britain, China, Turkey, Thailand, Bahrain, Jamaica and Germany. Others have travelled extensively and use their experiences to enhance their classroom teaching. We make also use of the DC area for frequent guest speakers.

Student Profile

- Pursue opportunities for growth in key graduate programs.

The program has continued to thrive and in the 2014-15 school year there were 56 students in the Fall semester, 54 in Spring 2015, and 31 in Summer 2015, as well as about 12 students in dual degree programs (MBA/IT or HCM/IT). The numbers are still lower than five years ago, as expected, because of the introduction of the MS in Cybersecurity program in Fall 2013, allowing students to specialize in depth in this growing field. The two programs together show significant growth.

The School of Business Administration (SBA) vision includes three pillars: business, health care management, and information technology. An important consideration is the relationship between business and IT. As government organizations move towards "open government" and many businesses strive towards "transparency", so technology plays an increasingly important role in the success of these organizations and communication between business professionals, customers, and IT personnel becomes paramount. New techniques for collaboration and

communication, including mobile technology and social media, are included in the curriculum to meet increased industry's reliance on IT. The focus today is not merely on software development, but also on the effective management of IT services through governance and strategic planning which combine business needs with technological developments. In addition, the role of IT in health care is rapidly gaining significance as providers move to electronic medical records and the increased focus on the analysis of the vast amount of data that result from this.

Provide a brief description of the assessment process used including strengths, challenges and planned improvements and provide evidence of the existence of a culture of continuous improvement based on assessment:

In 2014-15, the assessment process was fairly efficient with god participation from graduate faculty responses (full-time and part-time). A couple of responses were delayed but all were finally received.

Outcome assessment techniques were discussed early at a department meeting of Graduate faculty. The plans from the previous assessment were discussed, and plans put in place to focus on these three learning outcomes. Common rubrics from previous evaluations were discussed, including how they would be applied and in which courses.in the designated courses. Data collection requirements and deadlines were identified.

A number of other initiatives were also identified as part of our continuous improvement process including revising scheduling to meet the additional number of working students, the development of a new specialty in application security, and the need for a specific mobile application course for spring 2015.

A graduate assistant was appointed to be the coordinator for data collection and initial data analysis.

Describe how the program implemented its planned improvements from last year:

Outcome	Planned Improvement	Update *(Indicate when, where, and how planned improvement was completed. If planned improvement was not completed, please provide explanation.)*
Exercise leadership in analyzing, designing, developing, and integrating IT solutions that meet industry-wide standards using system engineering principles.	Independent work will be reinforced throughout the curriculum, including critical thinking. Additional support materials will be provided for the final capstone project.	All courses were reviewed for the extent of critical thinking assignments and changes were incorporated in to the following courses to emphasize this activity: IT510, IT520, IT 550, and IT 610. Additional resources , including some references on research and

		analysis, are now available on the Blackboard sites for IT680, the IT Master's Project.
Manage enterprise-wide information systems to ensure that an organization is competitive in today's global and high performance environment following strong ethical principles.	Communication, particularly between IT and business, will continue to be stressed throughout the program and students will continue to be given multiple opportunities to practice their verbal and written skills relating to the complex IT environment of today. A spotlight will be placed on ethics in earlier course such as IT510, Requirements Analysis, and IT530, Computer Security, to improve the understanding of ethical issues in the industry before students take IT550.	Donna Schaeffer and Michelle Liu worked on a grant proposal to include more ethics in the curriculum and some of this work developed for this grant proposal (which was ultimately not submitted) was used to add modules to the first courses in the curriculum, including IT510, IT530, and IT540.
Develop the knowledge and skills required to pursue life-long learning in areas relating to information technology and to adapt to an ever-changing, global technology and business environment through information literacy activities relevant to a fast-changing discipline.	Additional resources will be made available in all courses to ensure that students are aware of the expectations for finding information and evaluating it effectively. Since IT680, IT Capstone Project, is the last course for most students, it is planned to add a module on information techniques for "lifelong learning" to this course and have it as a component of the project retrospective submitted at the end of the course..	The final deliverable in IT680, IT Master's Project, is a retrospective, which includes a look at the student's performance in the final project. A section has been added to allow them to reflect on techniques they will use to ensure that they keep place with the changing field. One of these techniques that we mention is the ability to audit a class (such as the new class on drones) for a few hundred dollars as an alum.

Provide a response to last year's University Assessment Committee review of the program's learning assessment report:

The review of last year's assessment report by the University Assessment Committee was generally positive, with six of the critical areas being met and one partially met. One measure (students going to graduate school) was considered only partially met because of the technique used. This outcome will be measured differently next time it is assessed.

Learning Outcome 1:

Identify and solve complex problems in business and society using information technology, including the application and management of complex systems of hardware, software, networks, databases, and computer security.

Is this outcome being reexamined? X☐ Yes ☐ No

When assessed in 2011-12, two of the three outcomes were met. The first measure (the final project) was not totally met (76% as opposed to the 80% required). This was a slight increase over the results from 2008-9 where there were 74% of students with acceptable project evaluations at a lower standard.

Assessment Activity

Outcome Measures *Explain how student learning will be measured and indicate whether it is direct or indirect.*	Performance Standard *Define and explain acceptable level of student performance.*	Data Collection *Discuss the data collected and student population*	Analysis *1) Describe the analysis process.* *2) Present the findings of the analysis including the numbers participating and deemed acceptable.*
Direct: Evaluation of the quality of the final project report as the main deliverable in IT680, the IT Master's Project.	80% of students in IT680, IT Master's Project, should receive a value of 72 out of 90 (3 evaluations of 30 points each) for the main deliverable on the project as a measure of their ability to research and solve a complex problem.	Student project reports from Fall 2014, Spring 2015, and Summer 2015 were evaluated by 2 faculty members and 1 external industry representative using a rubric defined by the department (see Rubric 1).	Each semester, deliverables from the capstone project are reviewed by two faculty members (the instructor and the faculty subject matter expert) and at least one external member. Each person read and rate according to the rubric in Rubric 1. 14 were evaluated in Fall 2014, 6 in Spring 2015, and 12 in Summer 2015. 26 of the 32 students (81%) received a score of 72 or more for their projects. The standard was met.
Indirect: from the Graduating Student	By the end of their program, 80% of	Data was collected from the 2014-15 Graduating Student	90% of graduating students felt that they could "apply knowledge and skills to new

Survey, students should be confident that they can apply knowledge and skills to new situations and can solve problems in the field.	students should feel good or adequate about their ability to cope in the IT field where knowledge is constantly changing.	Survey, conducted by the Office of Planning and Institutional Effectiveness. Responses to 2 questions were evaluated: 1) solve problems in your field using your knowledge and skills, 2) apply knowledge and skills to new situations	situations" and 90% felt confident that they could "solve problems in your field using your knowledge and skills". The sample was 10 students. The standard was met.
Direct: Assessment of ability to develop a database to solve a specific problem.	80% of students achieved greater than 7 on the rubric developed to evaluate database applications (Rubric 2).	In 2014-15, for IT540, Enterprise Data Management and Analysis, each student developed a database to solve a specific business problem. The number of students were 21 for Fall 2014 and 11 for spring 2015.	Two different instructors taught a total of 32 students in Fall 2014 and in Spring 2015. They each had a common exercise that was a database design project. Each instructor assessed the project from the other class using a standard rubric (see Rubric 2). 14 of 21 (66%) of the Fall 2014 class earned a 7 or more, 8 of 11 (72%) of the spring. The average is 69%. This shows the better results for the smaller classes where attention that is more individual is possible. The standard was not met.

Interpretation of Results

Extent this learning outcome has been achieved by students (*Use both direct and indirect measure results*)**:**

Two of the three standards were met. For the first time, the students met the standard for the outcome based on the quality of their final report, pointing to the success at learning throughout the program. External reviewers commented positively on the complexity of the problems being tackled and the quality of the solutions proposed.

Program strengths and opportunities for improvement relative to assessment of outcome:

Many courses in the program focus on specific knowledge areas such as databases, networking, and security. The final project allows the student to select one of these specific areas for further study, delving into a specific subject area in depth. However, students are spending too much time in deciding the project to be studied and preparing the research proposal.

Discuss planned curricular or program improvements <u>for this year based on assessment of outcome:</u>

We are working on techniques to speed up this process so that students can devote more of the semester to the actual project rather than developing the research proposal.   A pre-course process is under review. For the database class, we will examine the assignment and ensure that the instructions are specific enough given the rubric we are using.

Learning Outcome 2: Use specialized knowledge and skills to obtain skills and, if applicable, certifications in areas such as software development, database and storage technology, computer security, IT governance, and project management.

Is this outcome being reexamined? X ☐ Yes ☐ No

In 2011-12, students were much more reticent to see the value of external certifications and we have tried to reinforce their value over the last three years. This has been reinforced by changes in the industry where jobs now list certain certifications (such as ITIL, CISP0 as requirements for many positions, in addition to academic credentials.

Assessment Activity

Outcome Measures *Explain how student learning will be measured and indicate whether it is direct or indirect.*	Performance Standard *Define and explain acceptable level of student performance.*	Data Collection *Discuss the data collected and student population*	Analysis *1) Describe the analysis process.* *2) Present the findings of the analysis including the numbers participating and deemed acceptable.*
Direct: Students confidence in their ability to take and pass the PMP certification exam.	80% of IT students who took the project management course, MSC545, are confident in their ability to take and pass the PMI examination within 90 days of completing the course.	The Chair passed out a questionnaire to students in each of the MSC 545 classes. The questionnaire was completed in class. Students were asked for their confidence level in taking the PMP certification exam.	19 students took MSC545 in fall 2014 and 13 students in spring 2015. Confidence in passing the PMP exam was examined as a result of the survey. 27 people (84%) felt they would take and expected to pass the PMI exam, based on their success a mock exam given by the professor at the end of the course.
Direct: Students showed confidence in their ability to take and pass a premiere cybersecurity certification such as the CISSP or CEH.	By the end of their program, 80% of students should feel good or adequate about their ability to take one or more of the required certifications in the cybersecurity field.	The Chair passed out a questionnaire to each of the students and asked for their confidence level in each section of the CISSP or CEH certification exams.	18 students took IT535 in Fall 14 and 13 took the course in summer 15. 26 of the 31 (84%) reported that they were very confident or confident that they had the knowledge to pass one or both of the exams. The standard was met.

Indirect: Number of graduates who have passed certifications (ITIL, PMP, CISSP, CEH etc.) while in the program or shortly after completing the program.	Professional IT certifications were obtained by at least 75% of graduating students with 90 days of graduation.	A Google form survey was conducted for all existing and recently graduated students to determine their current certifications.	31 graduating students from fall 2014 and Spring 2015 were surveyed and 24 responses were received. Of these 24 responses, 11 (45%) reported that they held one or more certifications, taken either 42.5%) during their graduate program or immediately afterwards. Another 3 students (12.5%) had scheduled the exams and were confident they would pass. (Total 55%) The standard was not met.

Interpretation of Results

Extent this learning outcome has been achieved by students *(Use both direct and indirect measure results)***:**

Two of the three outcomes were met. Although, students were confident in their ability to take and pass the certification exams, only around half of them actually took them. The number was, however, greater than in the previous evaluation

Program strengths and opportunities for improvement <u>relative to assessment of outcome</u>:

The program is designed to cover the knowledge base for several of the major IT certification exams, and faculty do encourage the students to take at least one of the major certification exams in supplement the master's degree. Some employers such as government contractors often see certifications as a sign of competence in a specific field.

Discuss planned curricular or program improvements <u>for this year based on assessment of outcome</u>:

This year we intend to publicize those students who have taken and passed specific certifications on a web page as an extra incentive to take the exam. In addition, we will invite some alums to come to a class, or outside activity, to talk about the value of their certifications.

Learning Outcome 3: Work effectively as a member or as a leader of a cross-disciplinary team in the IT field where teamwork is essential to the success of a time-critical project.

Is this outcome being reexamined? X☐ Yes ☐ No
If yes, give a brief summary of previous results (including trends) and any changes made to the program.

In the last assessment of this learning objective (2009-10), students met the performance standard in all three of the outcome measures, showing a 2% improvement in the one measure that was repeated from the previous year. We have continued to stress communication (oral and written) throughout the program and each course is required to include some element of teamwork, inside and/or outside the class.

Assessment Activity

Outcome Measures *Explain how student learning will be measured and indicate whether it is direct or indirect.*	Performance Standard *Define and explain acceptable level of student performance.*	Data Collection *Discuss the data collected and student population*	Analysis *1) Describe the analysis process.* *2) Present the findings of the analysis including the numbers participating and deemed acceptable.*
Direct: Evaluation of communication activities in the requirements definition process of the project in IT510, Systems Engineering" which is a group project with a short deadline.	Students rate 70% of the team members as effective or very effective in the communication process on the project in IT510, Systems Engineering. 8 out of 10 on the rubric (Rubric 3) is considered as effective	A questionnaire was given as a confidential evaluation by the student of the team as a whole and each member of the team is asked to assess the communication skills of each of the team members. There were 24 students in Fall 2011 and 17 students in Spring 2012.	There were two sections in fall 2014 (12 in one and 22 in another) and one section with 11 students in spring 2015. Of the 35 total students.9 individuals rated their team or at least one of their team members as ineffective or only partially effective in their communications in teamwork leaving 25 with a positive feeling about their team and its members (73%). The most common complaint was the timeliness and quality of collaborative writing efforts. The standard was met.

Indirect: From the Graduating Student Survey, students showed confidence in their ability to work as part of a team and to lead a team	By the end of their program, 80% of students should feel good or adequate about their ability to cope in a team environment in the IT field where work is often fast-paced and deadline driven.	Data was collected from the 2014-15 Graduating Student Survey, conducted by the Office of Planning and Institutional Effectiveness. Responses to 2 questions were evaluated: 1) work as part of a team, 2) lead a team	90% of students felt confident in their ability to work as part of a team and 100% felt confident in their ability to lead a team.

This standard was met. |
| Direct: Performance on a group project in an online course | Teammates rated 70% of their team members as effective or very effective communicators in working on an online team project in IT585, Managing Technical People, in Spring 2015. 8 out of 10 is considered as effective on the rubric (Rubric 4). | A questionnaire was given to assess communication effectiveness as a confidential evaluation by one team member of another (2 or 3 person teams, selected by the instructor). | There were 11 students in IT585 in spring 2015. Of these 8 (73%) of student received 8 or more on the assigned rubric.

The standard was met. |

Interpretation of Results

Extent this learning outcome has been achieved by students (*Use both direct and indirect measure results*)**:**

This outcome was met in all three of the measures for the first time. Progress has been made in teamwork preparation throughout the program. In addition, this is reflected in the student's confidence in their ability to be part of, and lead, a team in their work environment.

Program strengths and opportunities for improvement relative to assessment of outcome**:**

Faculty members have provided more resources to ensure their teams are effective and students have increased their proficiency in this area. In some courses, some class time is set aside for team experiences with oversight and guidance by the instructor.

Discuss planned curricular or program improvements <u>for this year based on assessment of outcome:</u>

We will continue to reiterate the need for successful teamwork and will raise the standard to 80% in the next evaluation period.

Appendices

Rubric 1: Evaluation of IT Final Project

Attribute	Measure	Scoring	Student Score
Review the project proposal to examine the scope of the project as planned	Grade it as complex, medium, or simple	Factor a, values 1, 2 or 3	
Review the literature for the scope of the review, the correct citing of sources, and the relevance of the search to the problem	Mark as fully relevant to a professional project, partly relevant, non-relevant or non-professional, does not meet requirements	Factor b, values 0, 1, 2, 3	
Review the project report for satisfaction of objectives outlined in the proposal	Mark as well developed themes, satisfactorily developed themes, or inadequate	Factor c, values 0, 1, or 2	
Assess the writing including spelling, grammar, and organization	Mark as adequate, minor issues, or poorly crafted, needs to be rewritten	Factor d, values 1 or 2	
Examine project retrospective for analysis of performance	Mark as well analyzed, adequate, or not effectively analyzed	Factor e, values 0,1, or 2	

Review of presentation materials	Adequately conveys contents of report or does not convey essence of report	Factor f, values 0 or 1	
Total score	Calculate score	a (b + c + d + e) with students receiving a score of 0 through 30.	

Rubric 2: Evaluation of Databases

Attribute	Measure	Scoring	Student Score
Review the data structures to examine the application of normalization principles	Grade it as fully normalized, partially normalized, or breaks normalization principles	Factor a, values 0, 1, 2	
Review the data entry form for usability principles	Mark as highly usable, usable but with inadequate validation and in correct order, usable but fields not in effective order, or not usable or not available	Factor b, values 0, 1, 2, 3	
Review the reports for readability and ability to solve user requirements	Mark as well developed reports, satisfactorily developed reports, or inadequate or missing	Factor c, values 0, 1, or 2	
Examine project retrospective for analysis of performance	Mark as well analyzed, adequate, or not effectively analyzed	Factor d, values 0,1, or 2	
Review of data tables and their accuracy and completeness	Accurately reflects types of data to be entered and is accurate or not	Factor e, values 0 or 1	
Total score	Calculate score	a+b+c+d+e with students receiving a score of 0 through 10.	

Rubric 3: Evaluation of Communication in Projects

Attribute	Measure	Scoring	Student Score
Review the questionnaire results looking for evidence that the student was engaged in the requirements definition of the project	Grade as fully engaged, partially engaged, or lacks engagement or was not present	Factor a, values 0, 1, 2	
Review the class participation records on Blackboard to look for evidence of participation by each student in weekly group activities	Mark as team leader, high levels of participation, participates effectively particularly in areas of expertise, some participation, little or no participation	Factor b, values 0, 1, 2, 3	
Review the written communications for readability and ability to be understood by client	Mark as well developed documentation, satisfactorily developed documentation, or inadequate or missing	Factor c, values 0, 1, or 2	
Review of group project reports and their accuracy and completeness	Accurately reflects the findings of the project that can be understood by a non-technical person, accurately reflects project but is too technical in nature, does not accurately reflect project or not submitted	Factor d, values 0, 1, 2, or 3	
Total score	Calculate score	a+b+c+d with students receiving a score of 0 through 10.	

Rubric 4: Evaluation of Communication in Online Course

Attribute	Measure	Scoring	Student Score
Monitor the discussion board entries for the course	Grade as full participation, partial participation, or lacks effective participation	Factor a, values 0, 1, 2	
Review the class participation in chat records on Blackboard to look for evidence of participation by each student in weekly chat activities	Mark as team leader, high levels of participation, participates effectively particularly in areas of expertise, some participation, little or no participation	Factor b, values 0, 1, 2, 3	
Review the written communications for readability and ability to be understood	Mark as well developed, satisfactorily developed doc, or inadequate or missing	Factor c, values 0, 1, or 2	
Review of group project reports and their accuracy and completeness	Accurately reflects the findings of the project that can be understood by a non-technical person, accurately reflects project but is too technical in nature, does not accurately reflect project or not submitted	Factor d, values 0, 1, 2, or 3	
Total score	Calculate score	a+b+c+d with students receiving a score of 0 through 10.	