

2011–2012 Assessment of Academic Achievement Report

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Coordinator's Introduction

This was an extremely active year for academic assessment. The department of nursing is now looking at the assessment of their classes and program. Teacher Education did a fairly comprehensive review of their program. CTE is always busy, satisfying requirements of the state in these matters, but still conducting assessment of classes that conforms to the prescribed process of the other departments.

Assessment is coordinated by the assessment coordinator/facilitator, who relies on department heads to disseminate information and procedures to the respective instructors in those areas. The core of the process is the assessment done at the class level. If the assessment objective is the class itself, then focus is given to the stated goals and objectives as reflected in the syllabi. If, as in the case of the General Education Program, the Associate of Arts Program, and the Associate of Science Program, the objective is a review of those programs, then assessment still begins with the assessment of the classes in the program, using the class goals and objectives, but correlating them

to the learning outcomes of the program. The assessment narrative then becomes a report on how well the class has met the learning outcome/s for the program. This, in turn is coordinated by department chairs, who give their report on the effectiveness of the department in meeting the expectations of the learning outcome/s for the program. The assessment coordinator then reviews and assembles the annual report, along with observations of perceived needs, strengths and weaknesses of the program for the college constituency.

This year the Associate of Arts degree program has been the focus of a review. Next year, the Associate of Science will be reviewed in a similar manner. This report details by department the assessment completed this year, along with identified strengths and weaknesses, recommendations for change and unresolved issues. Participation by faculty was very high with only a few opting out of the process. Some faculty feel that the assessment is an unnecessary, additional burden added to their teaching responsibilities, but the majority of instructors do

reflect on the outcomes of assessment and plan modifications to their courses as a response to the revelations of their assessment.

Beyond the introduction to this report, detailed strengths and weaknesses are reported out by department chairs and directors. For especially detailed reports and the correlation to the class objectives and/or programs, the reader is advised to go into the individual instructor reports with each department area of this document.

Information gained from assessment will be used in multiple ways. The Arts & Humanities chair reports that the departmental assessment will be shared with the new instructors coming into the department in the fall of 2012. She also says that instructors emphasize the importance of capping enrollment in these writing sections at twenty for face-to-face classes and at fifteen for online sections. Writing and mathematics have been problematical areas for years here at TMCC. The larger than normal sections only make it more difficult to analyze the writing of large numbers of students and provide commentary and suggested revision to them. Speech class enrollment shares this issue, and perhaps

the enrollments in those sections should be capped at no more than twenty. Speech classes typically are less effective with the larger enrollments since it takes much more time to complete a round of speeches. Usually the number of assigned speeches goes down with the higher enrollment. The department chair also suggests a need for on-line tutoring for students in need. The rationale for this is greater accessibility for students in need of help. Instructors in this area also wish for a dedicated writing laboratory, perhaps as a part of the new Zhaabwii program. Perhaps the most significant suggestions from this department recommends doing away with remedial writing class credit and replacing that with coordinated learning center activity where students can develop needed skills at their own pace without the credit from the remedial sections.

The Social Science chair reports that many of her instructors do involve students in critical thinking skills, listening skills (communication outcome), cultural diversity, technology, and leadership. According to the chair, “It is within the Department of Social Science that culture and

history of the Turtle Mountain Band of Chippewa is most likely to be at the core of every class discussion.” From time to time, faculty have debated the wisdom of creating an Indian Studies Department, perhaps leading to a related degree.

The math and science chairperson reports that several A.A. learning outcomes were addressed through the assessment of classes at the classroom level: math, science, technology. The chair is recommends the following: “In order to improve student learning, the department recommends student access to Hawkes math learning software on the server; graders to grade math homework, a full-time instructor to replace Dr. Braatten, who left the college a year ago, continued funding of Hawkes mathematics learning software on the server; more laboratory space for chemistry and physics courses; and a discussion of study skills and the importance of class attendance during orientation.”

The Teacher Education director states this notable achievement:

“Turtle Mountain Community College continues to lead the state in the number of secondary science composite degrees conferred. Our graduates are highly sought after and many have already been offered jobs within the local community school systems.”

Overall, there is ample evidence in this report to show extensive involvement by faculty in assessing academic achievement. Although not all revelations impact fiscal policy, it is important to know that the tiny modifications and gained insights from this process serve to make the general learning environment a positive and valuable asset to our students.

*Andrew Johnson, Coordinator of Academic
Assessment*

Associate of Arts Program Assessment: 2011– 2012

Arts & Humanities Department

Spring 2012 Assessment Report

The Arts and Humanities Department assessed courses using pre- and post-tests and comparing the results of the two, using the stated learning outcomes for the associate of arts program as a gauge. Recommendations from the department are based on the results of the assessment as well as on the teaching experiences of the members of the department throughout the semester. All instructors in the department looked at their assessment outcomes in terms of what modifications could be incorporated to improve the courses themselves while also strengthening the associate of arts program. The changes individual instructors see as necessary for specific courses will be implemented either partially or totally during the following semester by those instructors who will be returning. Assessment information from instructors who have resigned will be given to new instructors so they will be able to develop their courses accordingly.

The Arts and Humanities Department continued to function spring semester with one fewer instructor after the resignation of Bronson Lemer at the end of summer session. Once again, Eric Kuha, who is employed under Project Choice, taught writing basics classes, but instead of teaching three sections as he did during the fall semester, he taught only two writing basics sections. Anyea Hake, who taught writing basics classes during the spring of 2011, taught three sections of classes Bronson Lemer previously taught in addition to the speech classes she typically teaches. With fewer people in the department, fewer sections of some writing classes were offered and some classes had more students than is ideal.

Both Eric Kuha and Anyea Hake will be leaving after this semester and will be greatly missed. Both are highly qualified and have been assets to the department. The college is advertising the positions vacated by their resignations, and hopefully the positions will be filled early in the summer so that the new instructors will have time to adequately prepare for the fall semester.

In addition to identifying changes for specific courses that they feel they can implement themselves, department members have also identified institutional changes that they believe are necessary or that they believe would improve classes. These suggested changes are listed along with rationale for the recommendations:

Recommendations Based on Outcomes from Assessment:

1. The college needs to fill the vacancies in the department as soon as possible so the department will have four full-time instructors in the fall. The department needs to offer sufficient sections of required classes so that students do not have to wait to take a class because sections are full. Even with four full-time instructors, it is difficult to accommodate all the students who need required classes. It is not in the best interests of the students to have them delay taking required classes, such as composition and speech.
2. The department recommends capping enrollment in writing classes and speech classes at no more than twenty, with fifteen being ideal. Online classes should be capped at fifteen. Until a few years ago, no more than twenty students were allowed in any composition class, including developmental courses. Recently the number allowed in face-to-face classes has been set at twenty-five. The size of current classes is negatively affecting students since it takes a significant amount of time for instructors to provide appropriate feedback on student assignments. When classes are large, out of necessity instructors either assign fewer writing assignments or provide less feedback, which is detrimental to students. Speech classes also suffer when they are too large, as it takes so much time to get through one round of speeches that the number of assigned speeches is reduced.

3. Policy should be changed so that placement results are valid for only a certain number of years (possibly two or three years). Students who do not complete the general education requirements for an area during that time should retake the placement test. Currently students are returning to college after being out of school for a number of years, and they often need developmental courses to refresh their memories. When they enroll in classes for which they are not prepared, they often fail or become frustrated.
4. Online tutoring is needed for students taking online classes. It is not realistic to think that students who are taking online classes because face-to-face classes won't fit into their schedules will be able to meet face-to-face with tutors. Since there is free online tutoring available through the ND State Library, perhaps those services could be used if the information about how to access them were provided. Currently, few are using the free tutoring, but that may be because they are unaware it is available.
5. A computer lab should be available for writing instructors to use with their classes. Currently, writing instructors are only able to take their students to a computer lab if the lab is not in use by another department. Unfortunately, computer labs are often in use during the times writing instructors have class.

6. The college has a problem with students in developmental writing classes who may still be unprepared for regular composition classes after spending two semesters in developmental courses. Students are supposed to “test out” of developmental classes before taking regular composition, but sometimes students have made good progress in a developmental class yet still lack essential skills. The college should look at alternative ways to handle developmental courses, including possibly having a learning center where students can develop skills without receiving college credit.

Assessment Narratives from Faculty

Assessment Narrative

Andy Johnson

I continue to assess the hybrid section of English 120A. This semester, however, I am doing my part to help with the assessment of the A.A. degree through my assessment of this class. The A.A. learning outcomes that have been addressed, either directly or indirectly are as follows: (1) Communication, (2) Technology, (3) Critical Thinking, and (4) Cultural Diversity.

The communications outcome is stated as follows: “**Communication:** Students will attain competencies in the design and delivery of public speeches. Students will also be able to accurately interpret and critically analyze written

media and express themselves in writing, utilizing various expository writing strategies.” Primarily the analysis of written media takes place during the research phase of the course where students will search out sources that shed light on an issue they will research and write about. Students learn to read through a great amount of material, selecting passages that will strengthen and support their own arguments in the paper. Throughout the part of the course, students have opportunities to use the various marks of punctuation they studied and practiced with, most of which they were not generally familiar with before the start of the course.

Since students generally selected topics that invited research, they had ample opportunity to evaluate the validity and credibility of that material and its general utility for the paper. English 120A involves students in the analysis of media during the research phase and gives them practical skills that hopefully have transfer value for them in other pursuits.

The technology outcome is stated as follows: “Students will be conversant with the general knowledge bases and the procedures and techniques by which knowledge is generated and accessed through the use of technology, and they will be able to select and apply the techniques and procedures of technology at a level of complexity appropriate to their TMCC studies.” The English 120 students learn to use a great deal of technology during the course. First of all, it is a hybrid,

meaning that a majority of the course is in the Jenzabar platform. There students will access a wide variety of resource material: Powerpoint presentations, Sliderocket presentations, word documents, and a variety of Internet articles, accessed through the provided links there in Jenzabar. Students work exclusively with word processing on their computers, uploading their assignments into the Jenzabar module and accessing graded papers later to check for suggested revision commentary from the instructor. Computer literacy is a baseline requirement for students. Competency with word processing and working with various computer files is continuously done in this class. Students soon learn to become comfortable and competent with a wide range of technology.

Our A.A. learning outcome for critical thinking is stated as follows:

“Students will be able to raise vital questions and problems, gather and assess relevant information, come to well-reasoned conclusions and solutions, and test those solutions against relevant criteria, think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies.” Many students selected topics dealing with the extraction of oil from shale formations deep in the earth. The issue connected with this topic has to do with the possible risks and dangers associated with the procedures. Students were able to search for a variety of sources that served to educate them and support their eventual

conclusions in their papers. Some students chose the topic of the fighting Sioux logo used by the University of North Dakota. Most students used the Internet, but a lot of students preferred interviews of people directly impacted by the some aspect connected to the topic. My findings are that students need to be given more training on separating groundless propaganda from factual studies of their topics. Students are too willing to accept the validity and truthfulness of almost any source they come across. More time needs to be spent evaluating the credibility of the sources that students examine.

The cultural diversity learning outcome is stated as follows: “Students will be able to consider a variety of perspectives based on differences such as those stemming from culture, heritage, gender, ethnicity, historical development, community and leadership, and they will apply this awareness at a level of complexity appropriate to their TMCC studies.” Several students chose topics for their research that focused sharply on various aspects of their culture. One student speculated on the inherent power of traditional spirituality in overcoming addiction to alcohol. Her paper was an exploration of the natural strengths of this spirituality in pulling a person away from addictive behavior. Another student wrote on the power of leadership and how it tends to extract a price in changing those who become part of the tribal power structure. Still, another student researched the art of beading and what it reveals about the cultural distinctions between tribes.

Our learning outcomes for the A.A. degree are meant to give a foundation of skills and knowledge that will enable them to bring those capabilities to their first jobs or empower them to advance their education in working towards their bachelor's, master's, or doctoral programs. English 120A does address the outcomes of communication both from the structural mechanics of writing to the deeper levels of analysis, critical thinking, formulating of thesis statements, and adding development and support to their arguments. Though we do not succeed with all students, a majority of them are sufficiently prepared to move on to greater educational accomplishments and/or employment.

Assessment Narrative by Anyea Hake

Fundamentals of Public Speaking (Comm 110A&B)

Fundamentals of Public Speaking is a required core class for the Associate of Arts degree at Turtle Mountain Community College. I choose to assess this course because I can see visible improvement in the students' ability to speak in front of a class. I also wanted to know if they walked away with an increased awareness of not only their own abilities in speech, but also a basic understanding of the principles of public communication. I looked at communications, critical

thinking, and humanities and social science aspects of this course in my assessment. Overall I think this is a successful course and a useful one for the associate of arts degree. Overall my assessment revealed many successes observed in class and on the test. There does need to be some improvement made in scheduling activities for the course to allow more time for the students to read and absorb the science and strategy behind communication.

I visibly saw students improve with the students' confidence level throughout the course and their speeches. Most that attended and participated in the course were able to attain medium to high levels of competency in the delivery of public speeches. What students seemed to need the most help with throughout the course was the design of the public speeches. A confidence building strategy is practice and that is why I attempt to do as many as seven speeches in a semester. By the end most students are able to deliver a successful speech without psychological interference.

Critical thinking is essential to the design of a speech. I often challenged students to outline ahead of time and challenge ideas that were brought forward in their research. The post-test revealed that almost all students knew that an ethical responsibility in the communications process is to question the message, whether it be yours or another speaker. Most of the critical thinking skills that the student employed were in their topic choice. I offered a basic framework around

assignments but the topic was ultimately up to the students, and they had that message. Often times these topics would demand solutions and critical thinking in the context of rhetorical strategies to maintain your credibility, and keep your audience energized about your topic. I enjoyed discussing possible topics with the students, and in the future I would like to plan more time to help the students choose and narrow down a topic. Towards the end of the semester it was not the delivery of the speeches that was the problem area, but poor topic choice. I would hope to prevent that in the future by having students post their topics on the on-line discussion board for the whole class to respond to. This would be in addition to any class discussion on the topics.

Class discussion was of course not limited to speech topics but also the art of oral communication in general. Communications is under the arts and humanities purview, and it could also be considered a social science because of studies in rhetorical strategies. You have to consider your audience and understand the demographics of your audience in order to design a speech with a message that has an impact. As part of assignments for the course students did interpret and discuss Native Americans and their contributions to the humanities as well as the current affairs in the community and concerning general issues that surround Native Americans. I encouraged topics on this and the students completed their service

learning speech to be given in a community setting on the topic of issues affecting their community.

I feel this class is essential to the A.A. degree. Not all colleges require public speaking, and I think it is safe to say that many students would avoid it if they could. That is one reason why speech is a positive core class, because students have practice in essential communication skills that they would have previously circumvented. These communication skills are highly applicable not only to the future of their education, but also to their personal and professional life. It is a good class for everyone to take, but I do worry about the lasting effects of the speech course. One of the factors for increased confidence level is simply that all the students have gotten to know each other and they feel comfortable in the classroom. When asked to give a speech in another course, the students might revert back and the progress made seems to be non-existent. This is why communications (written and oral) should be stressed across the board in all core classes that make up the A.A. degree. Student presentations or reports help them grow confidence and awareness. I did find both sections of the speech class successful in their pursuit of oral communication skills, but I think we can do more to stress this skill. Speech is not just one more hurdle to get over in the pursuit of a degree, but an important part of being successful in that degree.

Assessment Narrative

English ASC 086: Writing Basics I

Spring 2012

Instructor: Eric Kuha

I assessed Writing Basics I this semester as a way of following up my assessment from last semester. Again, I specifically assessed learning outcomes for communication, critical thinking, and cultural relevancy. These are the three issues that I personally see as most vital to a student's success in this particular subject. This ended up being a very strange class, quite different from my last section of Writing Basics I. First, class size was dramatically different. Last semester, this class was consistently well-attended and energetic. This semester, my average attendance was a little over 7 students per day and often smaller (as few as 3). On the one hand, it made statistical analysis of assessment more fruitless. The numbers were good (that is, everyone improved), but I'm not convinced that that is statistically significant with such a small sample size. On the other hand, I really do feel like the students who were dedicated and stuck with me to the end, were rewarded. They received far more direct and personalized feedback on their work and I like to think that they benefitted.

One of the most important changes that I made to my curriculum was in the "journaling" aspect of the writing class. As always, I believe that students' failures

to communicate effectively are often a result of simply not having had enough practice. As with any skill, it must be honed and so I like to facilitate that. Last semester, the weekly journaling were difficult to give feedback on. My plan had been to collect them four times throughout the semester (every four-ish weeks), and give feedback. At the beginning of the semester when everyone was doing

their work, this was an insurmountable task that I had given myself. Individualized feedback was nearly impossible to give in a timely fashion. There was simply too much.

What I did this semester was assign what I called “weekly writings.” Each week I would give a prompt and the objective was to take that prompt (things like “snow,” “survival,” “courage,” “the lottery,” etc) and write a half a page to a page and type it out and hand it in. All they had to do was complete the assignment to get credit. And so, instead of 16 hours of work every four weeks, it was an hour or so once a week, which ended up being far more manageable.

The quality was immaterial, but I told them the more effort they put into it, the more I would put into giving feedback. This system, I think, was very successful. Each week, the students received personalized feedback on a short piece of writing. I required them to be typed after the first week because handwritten text is almost impossible to judge objectively and I wanted the students to understand that proper grammar requires an attention to detail that many of them are unaccustomed to.

This worked really well with two sections; however, it might prove to be too much work if I had three sections. Writing a few sentences of notes (plus editing markup) was fine for the 15-20 (over two classes) that turned them in regularly, but if it was more than that, it might become tedious week in and week out. I think I would still

attempt it, but I would consider staggering the classes (yet another reason why smaller class sizes are something that need to be pushed for). Regardless, I felt like the exercise was a success and I will definitely repeat it in the future, should I find myself teaching developmental writing again.

As always, the main problem students face, in my view, is the lack of incision in thought and writing. Many, many students flat out refuse to *think* deeply before writing. For them, this is a college writing requirement and just something to “get through.” Trying to convince them that this is a critical thinking class works in a few cases (there are students who are really special and incredible), but the majority simply don’t care enough. They wrote the paper, didn’t really think about it, and turned it in. I feel like this lack of a desire to cut deep into an issue is also largely responsible for the considerable apathy when it comes to effective style and proper grammar. I highly doubt that many of these students have ever even given *style* of writing much consideration at all.

I would include one short anecdote. One student in this class took it last semester and quit very early. I hadn’t much hope for her, but she stuck with it this time. For the narrative paper, she wrote an essay about the day she had her baby. It’s a paper I have seen iterated many, many times. During workshop, I was trying to find a new angle that she could hit it from and I asked, “What did you feel the first time you held your baby in your arms?”

She said, “Honestly? I felt like she wasn’t my baby.”

This was one of those moments where I just wanted scream at a student. I said,

“Why in the world didn’t you put that in your paper?!”

Her reply, “Because you don’t say stuff like that about your kids.”

This was an a-ha moment for both of us, I think. Students very often censor themselves and their true feelings. I feel like writing suffers dramatically when students don’t take the time to be honest. When they are making up their feelings (rather than expressing something true) it comes off as false and the student cares less. When I recommended the student include that sentiment in the final draft, she didn’t run with it the way I had hoped, but the paper was improved for it, regardless. All in all, it was a very memorable interaction and one which will probably stick with me throughout my teaching career.

Statistically, the semester went well. Most of my class failed, but that’s largely because most of my class simply stopped showing up. Of the eight students that stuck with it to the end, seven passed and are, I think, ready for Writing Basics II. And that’s a success as far as I’m concerned. At this point, for next semester, I would like to explore a different text. I would like to teach developmental writing in a less formal way. Grammar rules don’t stick, so I feel like there might be a more free-form way to introduce those rules and save the hard grammar for Comp. It’s just a thought and something that I will be exploring in the future.

Peggy Johnson

Assessment of English 110 Spring Semester 2012

This semester, I assessed an online English 110 class. I was interested in seeing if there would be any significant differences between student learning in an online class and in the hybrid class I assessed the previous semester. When I compared the results of this semester's assessment of an online section with the previous semester's results with a hybrid class, I did not find any significant differences.

I used the same pre- and post-tests, with a few modifications, that I have used in the past, assessing considering the learning outcomes (see below) of the associate of arts program that seemed most relevant to the English 110 class, tying them to some goals and objectives stated in the syllabus. I also looked at student writing since it is difficult to assess some of the goals of the associate of arts looking primarily at an objective test.

The following learning outcomes for the associate of arts program seemed the most relevant for the English 110 class, especially the parts in bold.

a. Communication: Students will attain competencies in the design and delivery of public speeches. **Students will also be able to accurately interpret and critically analyze written media and express themselves in writing, utilizing various expository writing strategies.**

h. Critical Thinking: **Students will be able to raise vital questions and problems, gather and assess relevant information, come to well-reasoned conclusions and solutions, and test those solutions against relevant criteria, think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies.**

Assessment Item	Percentage of Correct Responses on Pre-assessment	Percentage of Correct Responses on Post-assessment	Improvement	Proposed Change in Instruction
Writing Effective	64%	89%	+39%	More time on commas and

Sentences Using Standard Punctuation				semicolons needed.
Use Jenzabar Competently	78%	100%	+22%	OK
Diction (no more than 3 errors per 300 words)	76%	78%	+3%	This needs continuous review.
Understanding Point of View and Using Appropriate Point of View in Writing	59%	87%	+26%	This is an area where most improved a great deal, but it is something that needs to be reviewed to prevent

				students from “slipping back” to previous habits.
Avoid Agreement Problems	44%	72%	+64%	More lesson time is needed even though this was the area with the greatest improvement. It is another area where it is very easy for students to revert back to old habits.
Understand the Essay	63%	74%	+17.5%	This is an area that needs

<p>Process and Write an Effective Essay</p>				<p>more time spent on it. Students don't always utilize the resources provided, preferring to write the way they have always written. I'm going to develop some Slide Rocket presentations and try to get students' attention so they really look at what</p>
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				effective essays do.
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Overall, students improved 28.6% between the pretest and the posttest. I am not sure that the test instrument I used is a good indicator of student learning, however. Objective questions may indicate something about student knowledge, but being able to respond to objective questions and being able to write effectively are not always the same thing. Therefore I also looked at writing samples from early in the semester and compared them to writing at the end of the semester to see what changes were evident. I did not include this information in the FARM report since it is subjective. However, I believe that improvement in students' writing is probably a better indicator of learning than tests that consist of primarily objective questions. First of all, students can guess at answers on multiple choice questions and may sometimes answer correctly because of a lucky guess. Also, students sometimes can recognize what is standard or nonstandard but may have greater difficulty applying that knowledge to their own writing. In future classes, I want to keep a record of specific writing problems on each assignment. Currently I identify the problems for the benefit of students, but I have not charted the

problems. Charting them will give me as well as the students a better picture of where the major problems are.

In assessing this class in terms of the learning outcomes established for the associate of arts degree, I considered the part of the communication outcome that states “Students will also be able to accurately interpret and critically analyze written media and express themselves in writing, utilizing various expository writing strategies.” During the first ten weeks, many of the assignments in my English 110 online class required students to read and respond to essays and articles on various issues. At the same time students were doing the writing, they were also given instruction in ways to recognize common writing problems and correct them. While the focus for assignments varied, the goal was to encourage students to use Standard English while developing and defending their opinions. Their writing was graded based on both form and content since both are essential in effective writing.

The last several weeks of the semester were spent on teaching students the process for writing a more formal essay. Included in this process were prewriting activities as well as assignments relating to the various parts of a formal essay. While the essay students wrote for a final essay was a persuasive essay, the unit also taught them about other kinds of essays and their differences. Not all students demonstrated an understanding of the requirements of an essay in their final

essays, but in general the final papers were acceptable and were much better than the writing from earlier in the semester. Seventy-five percent of the final essays were average or above average (although none were outstanding) and 25% were somewhat below average.

Assignments in the class addressed the learning outcome on critical thinking as well. Students' responses to assigned reading required them fulfill the expectations of the learning outcome for the associate of arts degree that asks them "to raise vital questions and problems . . . assess relevant information, come to well-reasoned conclusions and solutions, and . . . think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies." Even though many students continue to struggle with critical thinking, most showed significant improvement during the semester.

The class also addressed parts of the technology learning outcome for the associate of arts degree since students were required to use Jenzabar, an online learning platform, throughout the semester. Since the class was online, most of the students in the class were already very comfortable with technology before taking the class. A few had some small problems initially, but all of the students who completed the course demonstrated good technology skills by the end of the course.

While the post assessment test and final papers provide evidence that learning did occur during the semester, there are also concerns. Final papers submitted by students still show many of the same writing problems evident in earlier papers, although the quality of the writing is better than it was at the beginning of the semester. Throughout the semester it was also apparent that many students forgot what was covered in a unit as soon as they moved on to a new unit.

I believe students should be doing even more writing than they currently do—both in their composition classes and in other courses--as only through practice will writing improve. Unfortunately, many of our students indicate they were expected to do very little writing in high school, and they often received grades but little or no feedback for the writing they did do. Getting students to write more is difficult. Many students struggle to find time to do what is currently assigned and may be overwhelmed if more is expected, yet to become more effective writers, they must write frequently and need feedback on what they have written.

. I am concerned about the number of students who did not complete the course. Of the fifteen students who started the class, only nine earned credit, and two of the nine received a “D” for the course. Of the six who did not finish the class, two did not take the pretest and never submitted any assignments. Of the four who did take the pretest, two scored lower than any of the students who

completed the course and one scored lower than all but one of the ones who finished the class. Only one of the students who failed to complete the course scored well on the pretest, and that student has also enrolled for the class before and then quit submitting assignments after a few weeks. The results of the pretest suggest that possibly some students who did not complete the course lacked the background needed to do well in the class and may have realized they were not ready for the class.

There are many reasons why students do not earn the best grades in a class. Both students who earned “Ds” in the class scored reasonably well on the pretest and demonstrated the ability to do well. However, both failed to complete all the assigned work. In contrast, the student with the lowest pretest score of all the students who completed the course did very well in the class, finishing with a “B” despite some apparent weaknesses. However, he worked hard on his assignments and asked for help when he needed it. In the end, motivation matters a great deal.

Arts & Humanities Department Fall 2011 Assessment

Report

The Arts and Humanities Department lost one full-time instructor at the end of summer session with the resignation of Bronson Lemer. So far the vacancy has not been filled. Eric Kuha, who is employed under Project Choice, taught three writing basics classes during the fall semester, which allowed Anyea Hake, who had been teaching writing basics classes, to teach three sections of classes Bronson Lemer previously taught. With fewer people in the department, fewer sections of some writing classes were offered.

Eric Kuha is highly qualified to teach in the Arts and Humanities Department, as he has a master of arts degree in writing as well as two bachelor's degrees—a bachelor of arts degree with a focus on philosophy and a bachelor of fine arts degree with the focus on writing. Although he is not a full-time instructor in the Arts and Humanities Department, he has attended all of the department meetings and participated in department activities. He is an asset to the department.

The Arts and Humanities Department assessed courses using pre- and post-tests and comparing the results of the two, using the stated learning outcomes for the associate of arts program as a gauge. Recommendations from the department are based on the results of the assessment as well as on the teaching experiences of

the members of the department throughout the semester. All instructors in the department looked at their assessment outcomes in terms of what modifications could be incorporated to improve the courses themselves while also strengthening the associate of arts program. The changes individual instructors see as necessary for specific courses will be implemented either partially or totally during the following semester. (All instructors chose to assess courses that they will also be teaching spring semester. Had they selected classes that are not taught each semester, changes would have been implemented the next time the course was taught.)

In addition to identifying changes for specific courses that they feel they can implement themselves, department members have also identified institutional changes that they believe are necessary or that they believe would improve classes. These suggested changes are listed along with rationale for the recommendations:

Recommendations Based on Outcomes from Assessment:

1. The college needs to fill the vacancies in the department as soon as possible so the department will have four full-time instructors in the fall. The department needs to offer sufficient sections of required classes so that students do not have to wait to take a class because sections are full. Even

with four full-time instructors, it is difficult to accommodate all the students who need required classes. It is not in the best interests of the students to have them delay taking required classes, such as composition and speech.

2. The department recommends capping enrollment in writing classes and speech classes at no more than twenty, with fifteen being ideal. Online classes should be capped at fifteen. Until a few years ago, no more than twenty students were allowed in any composition class, including developmental courses. Recently the number allowed in face-to-face classes has been set at twenty-five. The size of current classes is negatively affecting students since it takes a significant amount of time for instructors to provide appropriate feedback on student assignments. When classes are large, out of necessity instructors either assign fewer writing assignments or provide less feedback, which is detrimental to students. Speech classes also suffer when they are too large, as it takes so much time to get through one round of speeches that the number of assigned speeches is reduced.
3. Policy should be changed so that placement results are valid for only a certain number of years (possibly two or three years). Students who do not complete the general education requirements for an area during that time should retake the placement test. Currently students are returning to college after being out of school for a number of years, and they often need

developmental courses to refresh their memories. When they enroll in classes for which they are not prepared, they often fail or become frustrated.

4. Online tutoring is needed for students taking online classes. It is not realistic to think that students who are taking online classes because face-to-face classes won't fit into their schedules will be able to meet face-to-face with tutors. Since there is free online tutoring available through the ND State Library, perhaps those services could be used if the information about how to access them were provided. Currently, few are using the free tutoring, but that may be because they are unaware it is available.
5. A computer lab should be available for writing instructors to use with their classes. Currently, writing instructors are only able to take their students to a computer lab if the lab is not in use by another department. Unfortunately, computer labs are often in use during the times writing instructors have class.
6. The college has a problem with students in developmental writing classes who may still be unprepared for regular composition classes after spending two semesters in developmental courses. Students are supposed to "test out" of developmental classes before taking regular composition, but sometimes students have made good progress in a developmental class yet still lack essential skills. The college should look at alternative ways to handle

developmental courses, including possibly having a learning center where students can develop skills without receiving college credit.

7. The vacancy left by Bronson Lemer's resignation should be filled as soon as possible. Until the position is filled, additional adjunct instructors should be hired so that the department can offer sufficient sections of required classes so that students do not have to wait to take a class because sections are full.
8. The department recommends capping enrollment in writing classes at no more than twenty, with fifteen being ideal. Until a few years ago, no more than twenty students were allowed in any composition class, including developmental courses. Recently the number allowed in face-to-face classes has been set at twenty-five. The size of current classes is negatively affecting students since it takes a significant amount of time for instructors to provide appropriate feedback on student assignments. When classes are large, out of necessity instructors either assign fewer writing assignments or provide less feedback, which is detrimental to students.
9. Policy should be changed so that placement results are valid for only a certain number of years (possibly three years). Students who do not complete the general education requirements for an area during that time should be required to retake the placement test. Currently students are

returning to college after being out of school for a number of years, and they often need developmental courses to refresh their memories.

10. Online tutoring should be available for students taking online classes. It is not realistic to think that students who are taking online classes because face-to-face classes won't fit into their schedules will be able to meet face-to-face with tutors.

11. A computer lab should be available for writing instructors to use with their classes. Currently, writing instructors are only able to take their students to a computer lab if the lab is not in use by another department. Unfortunately, computer labs are often in use during the times writing instructors have class.

12. The vacancy left by Bronson Lemer's resignation should be filled as soon as possible. Until the position is filled, additional adjunct instructors should be hired so that the department can offer sufficient sections of required classes so that students do not have to wait to take a class because sections are full.

13. The department recommends capping enrollment in writing classes at no more than twenty, with fifteen being ideal. Until a few years ago, no more than twenty students were allowed in any composition class, including developmental courses. Recently the number allowed in face-to-face classes has been set at twenty-five. The size of current classes is negatively affecting

students since it takes a significant amount of time for instructors to provide appropriate feedback on student assignments. When classes are large, out of necessity instructors either assign fewer writing assignments or provide less feedback, which is detrimental to students.

14. Policy should be changed so that placement results are valid for only a certain number of years (possibly three years). Students who do not complete the general education requirements for an area during that time should be required to retake the placement test. Currently students are returning to college after being out of school for a number of years, and they often need developmental courses to refresh their memories.
15. Online tutoring should be available for students taking online classes. It is not realistic to think that students who are taking online classes because face-to-face classes won't fit into their schedules will be able to meet face-to-face with tutors.
16. A computer lab should be available for writing instructors to use with their classes. Currently, writing instructors are only able to take their students to a computer lab if the lab is not in use by another department. Unfortunately, computer labs are often in use during the times writing instructors have class.

17. The vacancy left by Bronson Lemer's resignation should be filled as soon as possible. Until the position is filled, additional adjunct instructors should be hired so that the department can offer sufficient sections of required classes so that students do not have to wait to take a class because sections are full.
18. The department recommends capping enrollment in writing classes at no more than twenty, with fifteen being ideal. Until a few years ago, no more than twenty students were allowed in any composition class, including developmental courses. Recently the number allowed in face-to-face classes has been set at twenty-five. The size of current classes is negatively affecting students since it takes a significant amount of time for instructors to provide appropriate feedback on student assignments. When classes are large, out of necessity instructors either assign fewer writing assignments or provide less feedback, which is detrimental to students.
19. Policy should be changed so that placement results are valid for only a certain number of years (possibly three years). Students who do not complete the general education requirements for an area during that time should be required to retake the placement test. Currently students are returning to college after being out of school for a number of years, and they often need developmental courses to refresh their memories.

20. Online tutoring should be available for students taking online classes. It is not realistic to think that students who are taking online classes because face-to-face classes won't fit into their schedules will be able to meet face-to-face with tutors.

21. A computer lab should be available for writing instructors to use with their classes. Currently, writing instructors are only able to take their students to a computer lab if the lab is not in use by another department. Unfortunately, computer labs are often in use during the times writing instructors have class.

Assessment Narratives from Full-time Faculty

Assessment Narrative

English 120

Instructor: Andy Johnson

The average score on the pre-test was 11.28/28 items. The average score on the post-test was 18.28/28 items. This indicates overall general improvement. The statistics above indicate the extent of learning in relation to the tested items. It is always difficult to explain worse scores on the post-test than on the pre-test. This may be a case of short-term learning or no learning at all. I will add emphasis to these items in the following semesters, combining lecture, explanation, and assignments to strengthen these concepts.

Assessment of English 120A Fall Semester 2011

This semester, I assessed English 120A in the way I normally do. The pre- and post-tests are the same as they were last semester. The primary difference this semester is that I am looking at the learning outcomes of the A.A. program more so than the goals and objectives stated in the syllabus. Still, in the table below, you can still see proposed changes in the way I instruct the class as a result of pre- and post-testing. The narrative below the table, however, measures the instruction against the learning outcomes of the degree.

Assessment Test Item	Percentage of Errors on Pre-test	Percentage of Errors on Post-test	Improvement	Proposed Change in Instruction
Series Punctuation	25%	14.2%	+ 10.8%	OK
Absolute Phrase	50%	28.5%	+21.5%	OK
Coordinate Adjectives	50%	28.5%	+21.5%	OK
Direct Quotation	75%	71.4%	+3.6%	More time on commas and quotations needed
Intro Adv. Clause	100%	14.2%	+85.8%	OK
Series preceding Independent Clause	100%	85.7%	+14.3%	Unusual Construct—somewhat more time needed
Non-essential series	100%	71.4%	+28.6%	OK
Semicolon and Series	100%	14.2%	+85.8%	OK
Ind. Clause + “because” + D. Clause	100%	57.1%	+42.9%	More time on sub. Clauses and punctuation needed
Movie Title	75%	14.2%	+60.8%	OK
Simple Plural form—apostrophe?	37.5%	28.5%	+9%	More lesson time needed
Plural Possessive—s’	62.5%	14.2%	+48.3%	OK
Plural Possessive—s’	62.5%	71.4%	-8.9%	Unusual Construct—consider more drill work

Ind. Clause + appositive clause	37.5%	71.4%	--33/9%	Confusion between colon and semicolon application—more assignments
Non-essential set off with dashes	75%	57.1%	+17.9%	More time with dashes needed
Movie Title	100%	42.8%	+57.2%	OK
Documentation + Internet Stuff	37.5%	42.8%	-5.3%	More examples and explanation needed
MLA =	37.5%	42.8%	-5.3%	Confusion about nomenclature—review the systems used in N.D.
Works Cited =	0%	0%	0%	Prior knowledge of students
In-text citations + year?	75%	71.4%	+3.6%	Some confusion between APA and MLA—More explanation needed.
80% Source?	62.5%	0%	+62.5%	OK
Summary + citation?	50%	28.5%	+21.5%	OK
Paraphrase + citation?	50%	0%	+50%	OK
Citation + URL?	50%	14.2%	+35.8%	OK
Abstract + MLA?	100%	14.2%	+85.8%	Spend more time explaining

				abstracts and application
Cited Quote+ Works Cited— Required?	0%	14.2%	-14.2%	OK
Paragraph Content & Correlation to Thesis?	0%	0%	0%	Prior knowledge from Comp I
Thesis as Opinion and personal view?	0%	14.2%	-14.2%	OK

In assessing this class in terms of the learning outcomes established for our A. A. degree, I looked at the communication outcome: “Students will attain competencies in the design of public speeches. Students will also be able to accurately interpret and critically analyze written media and express themselves in writing, utilizing various expository writing strategies.” A lot of the instruction in my English 120A focused on the application of an array of punctuation marks in mini-essay writing. Included in this study were commas, colons, semicolons, apostrophes, dashes, hyphens, double and single quotation marks, italics, parentheses, brackets, and ellipses. The data above shows success and some failure with respect to learning some of these marks. Writing is always a matter of addressing both form and content. A weakness in either destroys the general coherence and value of the writing. Many of our students were largely unfamiliar

with this array of punctuation. As tools of writers, it is hoped that mastery of them will have direct impact on the quality of the content.

The second half of the semester was spent on teaching the thesis-based, MLA-documented essay. Included in this process were topic proposal strategies, pre-note taking exercises utilizing the outline format, research note-taking, analyzing content of sources and considering how they would support the students' thesis and development for the essay. In a revised thesis outline assignment, they strategically placed their research notes alongside headings and sub-headings to aid in the development and support of their own ideologies. Although there is still some confusion among students about certain aspects of MLA documentation, this was, for most of them, their first attempt at writing such a paper. The papers themselves show the understanding and the accomplishments through their efforts.

Such an instructional unit serves our learning outcome on critical thinking as well. That outcome is stated as follows: "Students will be able to raise vital questions and problems, gather and assess relevant information, come to well-reasoned conclusions and solutions, and test those solutions against relevant criteria, think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies." This semester our students covered a wide array of topics, most associated with life on this reservation: the

spread of methamphetamines among young people, domestic violence, unemployment, “fracking” (the oil extraction process which may eventually threaten the environment of this community), education requirements for tribal government officials, the use of Native American mascots by universities, etc.

Finally, I looked at our technology outcome, which is stated as follows:

“Students will be conversant with the general knowledge bases and the procedures and techniques by which knowledge is generated and accessed through the use of technology, and they will be able to select and apply the techniques and procedures of technology at a level of complexity appropriate to their TMCC studies.”

Although my students relied on local sources like interviews and local newspaper articles for supportive source material, by far the most popular avenue of research for them was the Internet. Here, student took research notes from Web sites, various published articles from newspapers, magazines, journals, etc.

Additionally, our writing class is primarily a paperless class. All research notes, outlines, drafts, and papers were generated electronically. No student gave me hard copy during the semester. They utilized an online platform through Jenzabar to study resource, keep up to date on assignments and activities, and submitted their work electronically through an upload process to Jenzabar. In this way, all of their work is electronically archived on the college semester from term to term. Of

course, this presumes familiarity with keyboarding, saving files, and uploading them as a routine part of classwork. They have done well with technology.

The second semester composition course, as an integral part of the required A. A. curriculum is meeting several of the learning outcomes for this degree. Improvement through assessment at the classroom level, measuring the performance of students against the stated goals and objectives reflected in the syllabi insures a continuous process of improvement of this class. We have come a long way from the Bic ball-point pens and the simple tablets used when I first arrived at this campus twenty-eight years ago. We continue to move forward.

Assessment Narrative

English 110

Instructor: Anyea Hake

This is my first time assessing English 110 as last year I taught and assessed developmental writing. I specifically assessed the class considering the learning outcomes for the associate of arts degree. The communication outcome states: “Students will attain competencies in the design of public speeches. Students will also be able to accurately interpret and critically analyze written media and express

themselves in writing, utilizing various expository writing strategies.” The learning outcome for critical thinking states: “Students will be able to raise vital questions and problems, gather and assess relevant information, come to well-reasoned conclusions and solutions, and test those solutions against relevant criteria, think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies.” These are learning outcomes of the associate of arts program for Turtle Mountain Community college that are relevant to the English 110 course I assessed.

I saw some of the same struggles in composition as I did in developmental writing. The students seem to struggle with retaining knowledge about sentence structure, punctuation and other mechanical errors in writing. It is like they cannot make the jump between what we work on in the course and their own writing. It also seems to be a matter of breaking old writing habits. On the multiple choice section of the pre and post-test I did leave on some questions that I used with the writing basics assessment test. These are questions that the writing basics students struggled to improve last year. I saw the composition students making the same mistakes that developmental students were making. I even found that at the end of the semester that eight students did slightly worse on the multiple choice test.

The specific area of struggle was punctuation and locating errors in sentences. Identifying and fixing run-ons, fragments and comma splices proved to be the most difficult section. These findings indicate that instructional and institutional changes need to be made because the retention of basic skills knowledge in writing is a deficiency in the students. My institutional recommendation was that the class size for writing classes be reduced to a maximum of 18. 15 in a class would be ideal, but there is already a high demand for English 110 and 120.

There were some successes on the post-test to be noted. The essay test showed an improvement of twelve points on average. The highest improvement was in communication and critical thinking. The students still struggled with paragraph transitions, and some students could not seem to move away from the simplistic first, second, and third transitions. I did see clear structure, fully developed thesis statements, successful introductions, and good paragraph development. Conclusions were still a struggle for a few students, but I was overall pleased with the improved post-test results. There may be a psychological variable that would account for the higher scores on the essay post-test. The pre-test was given credit simply for good participation (spending time) and completion, whereas the post-test was the final test for the course and was ten percent of the

overall grade. This variable could have been a factor in addition to progress in the subject of writing.

I will also note that again with the composition students I found an unwillingness to read the material for the course. I have a text with a collection of essays and I would conduct quizzes on the essays to encourage reading of the material. I almost never had a majority of students pass the reading quizzes. The students cited the reason is that they simply did not read the assigned material. I usually assigned two short readings for class discussion, but it was hard to include everyone in discussion because it would only be the same five or six students that had actually read the material assigned for discussion. I took a different approach and assigned critical thinking questions as opposed to a quiz just to prepare the students for the discussion of the reading. Again here I saw struggles because the students saw the critical thinking questions as simply required homework and not for its inherent value of learning and thinking critically. I would often find that students would get to class and complete the critical thinking questions as I was conducting class discussion. This semester I have changed my homework policy concerning reading questions in that they have to be done prior to the start of class and any questions completed during the class session will not be accepted. I explained to the students that the point of the reading questions is to get them to think critically about the assigned reading and to prime them for an interactive

discussion on the subject, and it would be pointless to accept late work after the discussion.

Overall, the students still need work with basic mechanical skills involved in learning the fine art of college writing. They have trouble applying some the techniques and procedures involved in this area of the humanities. I did see improvement in critical thinking and an ability to communicate in writing and discussion at a college level. Thesis statements and overall essay structure were the biggest success, with some exception to the development of the conclusion. I have my own goals for instructional changes that surround getting students to retain knowledge on grammar and punctuation and challenging students to read. I would like to see smaller class sizes, but this may not be possible. I know the TMCC is also working hard on the reading issue with the new Zhabwii Learning Center.

Assessment Narrative

English ASC 086: Writing Basics I

Fall 2011

Instructor: Eric Kuha

This is my first time assessing Writing Basics I, or any class for that matter. I specifically assessed learning outcomes for communication, critical thinking, and cultural relevancy. These are the three issues that I personally see as most vital to a student's success in this particular subject.

The biggest struggle that I think students face is in their ability to articulate positions and opinions. At the same time, many students often haven't even considered larger scale issues (even community-level issues) in any real detail. Their understanding of issues such as local unemployment are very superficial and their proposed solutions are usually along the lines of "The council needs to do something" or "We all need to come together to solve this issue as a community."

I have tried to coax students into looking at the underlying causes for many of these issues. I do not feel that apathy is the cause here; I honestly think it has everything to do with not having the tools necessary to make deep cuts into topics. They speak in very broad terms about things without looking deeply.

For example, I almost always assign a narrative essay, generally around 2-2.5 pages in length. With a limit of around 500-750 words, you have to focus in on a very specific event, but I had many, many papers that tried to relate an entire life story, or high school experience. Try as I might to explain that they need to focus closer to find the things that people will really want to read, I still face this issue.

One caveat: in this one class alone, I had several exemplary students, who were an absolute pleasure to have in class, seemed to learn a lot (even if their actual test scores reflected only a nominal improvement), and who will do well in more advanced classes. The difficulty that every teacher faces is in trying to challenge these students who are excelling, while bringing the struggling students up to speed.

Obviously, there were a lot of issues with respect to punctuation, grammar, spelling, and vocabulary. But these are issues that I feel are, in many ways, secondary to monumental task of convincing students that these tools are useful and desirable to possess.

Without being cynical (I do feel that every student has the ability to improve their skill with words), the fact that so many students test into this class in the first place can be attributed almost exclusively to the fact that many of them do not read for pleasure. One thing that I do in class is go around the class asking each student what the last book they read was. Seventy percent or more of the class will not have a response. This makes for a daunting task.

I sincerely feel that where I did fail in these classes had a lot to do with class size. My Writing Basics I class was exemplary in that I had very few withdrawals. This is a good thing. However, it did mean that I was spending less time with each

student helping them work through their specific problems and issues. Smaller initial class sizes would really help to build a tighter classroom dynamic, and facilitate greater individual attention.

I also can't take sole credit for the successes that I experienced in this class. I had, simply put, a really good class. From my understanding, Writing Basics I is often the class that sees the lowest retention and an even lower pass rate. At the end of the semester, I still had 26 students registered and 12 of them passed the class. Three scored a B or better and ten scored a C or better.

While the material in this class may be basic, I could not have asked for a more dedicated group of students. I am very curious to see how future sections of this class will respond to this material.

Future changes: I intend to switch texts next year. I want to explore some other developmental English texts with a less rigid and formalistic approach to composition. Whenever an author recommends the technique known as "clustering" as a viable technique for pre-writing, I have to question their credibility as an actual writer. I am also not particularly enthusiastic about the structure of the text, though I did appreciate the structure of some of the individual chapters. I will see what I come across throughout this following semester. I

would ideally like a text that the students will actually find interesting as opposed to something as chore-like as the Fawcett texts.

On a parting note, the thing that I try above all to emphasize in every class that I teach, is that all knowledge, no matter how basic, is worth knowing and, indeed, worth getting excited about. I always try to make participles seem like they are these magical tools that can give you the power to manipulate words. I try to emphasize that rhetoric will serve them well in every possible career. The ability to use language well is the ability to use words to solve problems, express thoughts and ideas, tell stories, and influence other people. I always stress the fact that language is a tool, and that they already have it. It just needs to be sharpened.

Assessment Narrative

English 110

Instructor: Peggy Johnson

The average score on the pre-test was 57% correct. The average score on the post-test was 74% correct. This indicates overall general improvement. In addition to looking at the overall scores, I also grouped questions on the tests into categories and identified areas in which students improved the most or improved the least. I

also looked at writing samples from early in the semester and compared them to writing at the end of the semester to see what changes were evident. I believe that improvement in students' writing is probably a better indicator of learning than tests that consist of primarily objective questions. First of all, students can guess at answers on multiple choice questions and may sometimes answer correctly because of a lucky guess. Also, students sometimes can recognize what is standard or nonstandard but may have greater difficulty applying that knowledge to their own writing.

In assessing this class in terms of the learning outcomes established for the associate of arts degree, I considered the part of the communication outcome that states "Students will also be able to accurately interpret and critically analyze written media and express themselves in writing, utilizing various expository writing strategies." During the first ten weeks, many of the assignments in my English 110A class required students to read and respond to essays and articles on various issues. At the same time students were doing the writing, they were also given instruction in ways to recognize common writing problems and correct them. While the focus for assignments varied, the goal was to encourage students to use Standard English while developing and defending their opinions. Their writing was graded based on both form and content since both are essential in effective writing.

The last several weeks of the semester were spent on teaching students the process for writing a more formal essay. Included in this process were prewriting activities as well as assignments relating to the various parts of a formal essay. While the essay students wrote for a final essay was a persuasive essay, the unit also taught them about other kinds of essays and their differences. Not all students demonstrated an understanding of the requirements of an essay in their final essays, but in general the final papers were acceptable and were much better than the writing from earlier in the semester.

Assignments in the class addressed the learning outcome on critical thinking as well. Students' responses to assigned reading required them fulfill the expectations of the learning outcome for the associate of arts degree that asks them "to raise vital questions and problems . . . assess relevant information, come to well-reasoned conclusions and solutions, and . . . think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies." Even though many students continue to struggle with critical thinking, most showed significant improvement during the semester.

The class also addressed parts of the technology learning outcome for the associate of arts degree since students were required to use Jenzabar, an online learning platform, throughout the semester. All notes were provided through Jenzabar, and

they accessed readings through links provided within the site. Students submitted all writing assignments electronically through an upload process to Jenzabar and took their tests online. In this way, all of their work is electronically archived on the college semester from term to term. Students needed to be familiar with keyboarding, saving files, and uploading them to do the assigned classwork. All students who completed the class demonstrated good technology skills.

Although I formally assessed an English 110 face-to-face class, I also did pre- and post-testing of an online English 110 class and compared the results of the two sections. There were no statistically significant differences between the two sections with either the pre- or post-test or the quality of the final essays, and the completion rate for the two sections was also about the same. The only significant difference I found was regarding the performance of the students in the face-to-face class who usually or always attended class. Those students did do significantly better on the final essay and post-test than either the other students in the face-to-face class whose attendance was more erratic or than the students in the online class, even though the scores on the pretest were comparable. It is difficult to say whether the difference was because of the face-to-face instruction or because students who are conscientious about attending class are usually also conscientious about studying and doing assignments.

While the post assessment test and final papers provide evidence that learning did occur during the semester, there are also concerns. Final papers submitted by students still show many of the same writing problems evident in earlier papers, although the quality of the writing is better than it was at the beginning of the semester. Throughout the semester it was also apparent that many students forgot what was covered in a unit as soon as they moved on to a new unit.

I believe students should be doing even more writing than they currently do—both in their composition classes and in other courses--as only through practice will writing improve. Unfortunately, many of our students indicate they were expected to do very little writing in high school, and they often received grades but little or no feedback for the writing they did do. Getting students to write more is difficult. First of all, many students struggle to find time to do what is currently assigned and may be overwhelmed if more is expected. In addition, I had difficulty keeping up with the correcting even assigning only one paper a week. At one time composition classes never had more than twenty students. A few years ago, that was changed so that face-to-face classes now have at least twenty-five students. Even with fairly short papers, if all twenty-five students submit a writing assignment, it may take me up to six hours to grade just one section of papers. It takes less time to grade a “good” paper than it does to grade a weak paper, as students who are struggling with writing have more writing

problems and also need more detailed feedback. Whereas a good writer may understand what I mean if I write a comment such as “Your paper needs more supportive detail; please include some examples,” a struggling writer may need to have me take a paragraph and show how additional detail can be added to strengthen it.

Social Science Department—Spring 2012

As we find ourselves at the close of another academic year it is an appropriate time of reflection on what we did right and what went wrong with our courses. The conclusions here are an important part of the Associate of Arts degree. These thoughts will shape future institutional policy changes, grant writers’ creative focus, and not to forget the most important, the student’s knowledge base. Turtle Mt. Community College Department of Social Science and Ojibway Language faculty that contributed to this report are Brian Bercier, Cecelia Myerion, Rollin Kekahbah, Gene LaFromboise, Tasha Morin, and Leslie Peltier.

“The Departments of Arts and Humanities, and Social Science offer curricula which give TMCC students a broad perspective of the world of knowledge while providing specific pre-professional curriculum sequences which may qualify the

student or admission a junior at the college to which he/she will transfer. Courses in these departments offer specific knowledge of Indian people, particularly the Turtle Mountain Chippewa. An Associate of Arts degree is awarded upon completion of the general education courses and the basic curriculum” (page 50 of the latest (2011-2012) TMCC Catalog).

TMCC Department of Social Sciences Objectives

1. To provide students with an academic background in the social sciences that is transferrable to a four-year institution;
2. To provide opportunities for students to study and research the history and sociology, including culture, traditions and government of the Turtle Mountain Band of Chippewa;
3. To provide students with opportunities to apply critical thinking and problem solving techniques to community, national, and global problems; and
4. To assess students on specific desired learning objectives.

Analysis of Social Science courses as fulfilling the Goals of the Associate of Arts Degree

Every Social Science course such as those discussed here, ND History, Psychology, American Government & Politics, and Chippewa History II and

Ojibway Language, require students to read, interpret and critically analyze written materials either in daily course work or by writing research papers and completing projects. Social Science faculty encourages students to apply basic knowledge to their own experiences and life on the reservation. That is critical thinking.

Students are expected to pass midterm and final tests in most Social Science classes which include essay questions that require lengthy and organized written responses. Students must think critically as they test, develop Power Points and do presentations. Chippewa History students are required to interview elder using good interviewing techniques. Chippewa History students must follow correct tribal cultural behaviors such as showing utmost respect for elders and reciprocal behavior in completing this project. Listening is almost a lost art, but an important Indian cultural trait. In the Ojibway language classes, communication and listening skills are generated at multiple levels, from one-on-one drill to class pronunciation and conversational dialogue. Students in ND History, American Government and Psychology study other cultures thereby broadening their perspective of the world. As the student progresses through the forty or so Social Science courses he/she is exposed to culture, culture heritage, class gender, ethnicity, historical development, community, the use of technology and have opportunities to develop their own leadership skills. It is within the Department of

Social Science that culture and history of the Turtle Mountain Band of Chippewa is most likely to be at the core of every class discussion.

Associate of Arts Degree Goals fulfilled by the Department of Social Sciences:

1. Communication: Students will have developed sufficient skills with the English language such that they can read; accurately interpret, critically analyze written material; express themselves effectively through narrative, explanatory, and investigative writing utilizing standard rhetorical techniques in the styles and formats; and at the level of complexity appropriate to their TMCC studies.
4. Humanities and Social Science: Students will be conversant with the general knowledge bases and the procedures and techniques by which knowledge and artistic expressions are generated and accessed in the two divisions of (1) the humanities and fine arts, and (2) the social and behavioral sciences; and will be able to select and apply the techniques and procedures of these two areas at a level of complexity appropriate to their TMCC studies.
5. Culture/Diversity: Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity, historical development, community, and leadership;

and will apply this awareness at a level of complexity appropriate to their TMCC studies.

6. Critical Thinking: Students will be able to raise vital questions and problems, gather and assess relevant information, come to well-reasoned conclusions and solutions, test those solutions against relevant criteria, think open-mindedly about their assumptions, consider the practical consequences and communicate effectively to find solutions at a level of complexity appropriate to their TMCC studies.
7. Technology: Students will be conversant with the general knowledge bases and procedures and techniques by which knowledge is generated and accessed through the use of technology, and will be able to select and apply the techniques and procedures of technology at a level of complexity appropriate to their TMCC studies.

This report covers the Faculty Assessment Reporting Matrix (FARM) for the Spring Semester 2012. Individual course assessment narratives follow in attachments.

Social Science Department—Fall Semester

Leslie Peltier, Dept. Chair

Turtle Mt. Community College Department of Social Science and Ojibway

Language faculty that contributed to this report are Brian Bercier, Cecelia

Myerion, Rollin Kekahbah, Gene LaFromboise, Tasha Morin, and Leslie Peltier.

This report covers the Faculty Assessment Reporting Matrix (FARM) for the Fall Semester 2011.

Brian Bercier Fall 2011 Assessment Narrative for PSYC 111, Introduction to Psychology

In the fall semester the pretest/posttest was administered to the Psych 111b class.

This is a required course for an AA and AS degree. There are no prerequisites for

this class. The pretest was administered on the first full day on the course, and the

post- test was administered on the last day of regular class. I had a lower than

expected return on the test. This was most likely due in part to student absenteeism

and lack of effort on the students' part. As stated in the FARM report, I had a total

of 15 students who completed the pretest and posttest. I did have a number of

students that completed the pretest only as well as posttest only. There is marked

difference in these tests in terms of completion. Since however I have no baseline for the posttest, which a significant number of students had answers in most of the questions, versus the pretest where there were many answers left blank, no valid conclusions can be drawn from them. One would like to believe that the posttest was significant in terms of learning outcome, but it would be a mistake to attempt to extrapolate any information.

So with the 15 that completed both tests more showed improvement than did not. This statement however positive it may seem is not indicative of satisfactory achievement in this instructor's view. Some students showed a drop in scores (a drop of one point, while others showed no gain. This number totaled six with two showing decreases).

Of the students who showed improvement, a measure of plus 2 was considered a significant gain (one of the questions had three subparts). Of those who showed gain in knowledge, seven were at or above that number. Three of the completers showed an improvement of at least 1 point.

This may not seem to be a large increase, but in light of the questions asked, some answers on the pretest were substantially off the mark, and had in no way close to showing any knowledge of the question's content.

In future testing more questions that test rote memory will be used, as this will give a measure of material that the students read, and that has been processed in long-term memory.

Cecelia Myerion, Fall Semester 2011, Narrative Assessment for LNG 125A, Ojibwa Language I, Jan. 2012

4. General Education Student Learning Outcomes: Ojibwa Language &

Culture: Students will be conversant in the basic Ojibwa language and use the procedures and techniques by which knowledge and artistic expressions are generated and accessed ...2) the social and behavioral Seven Teachings will be used so that they will be able to select and apply these techniques and procedures ...at a level of complexity appropriate to their TMCC studies.

5. Culture and diversity Student Learning Outcomes: Students will be able to consider a variety of perspectives bases on differences such as those stemming from the culture, culture heritage, class gender, ethnicity, historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Associate of Arts Degree Student Learning Outcomes: C) Social Science:

Students will study and research the Ojibwa language, history and sociology, including the culture, traditions and government of the Turtle Mountain Band of

Chippewa and apply critical thinking and problem solving techniques to community, national, and global problems. Students in LNG 125A, Ojibwa Language I learn about the history of the Turtle Mountain Chippewa as they learn to speak and understand the Ojibwa language. They learn that the Seven Teachings are in place as they learn the language and culture and because these teachings are in place the self-esteem rises and helps the student succeed.

D) Culture/Diversity: Students will be able to consider a variety of perspectives based on differences such as those stemming from culture; heritage, gender, ethnicity, historical development, community and leadership, and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Course Goals and Objectives: The student will become familiar with the proper pronunciation of the Ojibwa Language. They will gain knowledge about their Indian identity and have a sense of place. The student will learn to speak the Turtle mountain Band of Ojibwa dialect while learning the basic Ojibwa language. The student will learn good leadership skills in this course. The student will learn and understand the root system of the Ojibwa language and find self-identity but also develop listening comprehension and speaking.

Assessment of course: (FARM) LNG 125A Ojibwa Language I

The pre - assessment is given before any course begins with the Post – assessment given before each final exam. The pre – post test is done at the beginning and end of each semester.

Results

The findings are that the students that come for their education at the Turtle Mountain Community College know very little about themselves. They know very little about the Seven Teachings which is the foundation of TMCC. They know nothing of the Ojibwa Language and nothing of the Ojibwa culture and value system. They know very little about the environment issues we have such as the water issues.

Before any course is started the pre – assessment test is given and 20% or less answer the questions given correctly, the post – assessment is given before any final exam is given and 90% of the students know the Seven Teachings words, they also know some basic Ojibwa language and they are more aware of the issues we face as tribal people.

The success of each student greatly improves and they gain self-esteem as they learn to speak the basic Ojibwa language. I have seen big improvements in each of the students that I have had in the past. They are taken what they have learned here at TMCC and in turn are teaching their children, but also the community members.

They now walk with pride and honor for they have found their identity while taking the Ojibwa language & Ojibwa culture classes here at TMCC. The success of each non – Indian also improves as they learn and know the values of the Seven Teachings that are necessary for all people to truly be happy and succeed at whatever goal s/he may have .

It is of great importance that the Turtle Mountain Community College continues to offer these courses to the students that decide to get their education here before venturing out.

We need to offer the Ojibwa Language course to each faculty and staff member, so that they can learn to greet our visitors in the Ojibwa language. The faculty needs to incorporate the basic Ojibwa Language along with the Seven Teachings while here at TMCC. I firmly believe that if we can learn the basic Ojibwa language along with the values of the Seven Teachings, we become a stronger college and a strong college is good for the students, faculty, and staff, but also for the community members of the Turtle Mountain Chippewa Reservation. Our non – Indian students, friends will take something of great value when they continue their journey.

As a faculty member who teaches the Ojibwa language and Ojibwa Culture to whoever would like to learn, I will continue to make every effort to find ways and

improve the way I teach. I will listen to the student, and I will respect students from any walk of life. I will continue to help the student succeed by incorporating the Seven Teaching of the Anishinabe people as I teach this very important Ojibwa Language course to the students of TMCC.

The students in the Ojibwa language courses cannot learn to speak the Ojibwa language in one semester. I recommend that the courses LNG 125A Ojibwa language I, LNG126A Ojibwa language II be a year- long course, but also to offer a course such as Introduction to the Ojibwa Language. I also recommend that all students who come to TMCC for their education to take EDUC 305A Ojibwa Language and Culture Immersion Camp and for all these courses to be a requirement before graduation from the Turtle Mountain Community College.

Rollin Kekahbah, Fall Narrative Assessment for HIST 261, Indian History to 1850, February 2012

The results of the Fall Semester 2011 Semester assessment in Indian History I were disappointing. From my point of view this result is not surprising as the quality of our reservation community college students dictates it to a high degree. Because of problems, beyond our community college student body's control, instructors have to expect students in their classrooms who are the end product of a community's high unemployment rate (70%), high poverty rate (30%) and subsequent low academic achievement K-12. For example, community

students are below the NCLB 50th percentile annually; have an average ACT composite score of 16; and a high school graduation rate of 60%. These factors are obviously (?) not conducive to our students being prepared to succeed at the higher education level and, of course, they don't succeed in very high numbers (14% TMCC graduation rate).

Our charge is to discern the ways and means to improve upon the academic foundation foisted upon our students by the community, whatever that foundation may have wrought. Thank goodness, there are some pre-college programs at our college that recognize the academic shortfall of many of our students and will help improve those skills necessary to succeed at the community college level. In the meanwhile TMCC instructors must attempt to maintain standards befitting an American community college and, despite the challenge, expect their students to come up to high standards and succeed.

Gene LaFromboise, FARM Assessment Narrative for 2011 Fall Semester, North Dakota History 220 A

This course fulfills the following goals.

4. General Education Student Learning Outcomes: Humanities and Social Science: Students will be conversant with the bases and the procedures and

techniques by which knowledge and artistic expressions are generated and accessed ...2) the social and behavioral sciences, and they will be able to select a and apply the techniques and procedures ...at a level of complexity appropriate to their TMCC studies.

5. Culture and diversity Student Learning Outcomes: Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity, historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Associate of Arts Degree Student Learning Outcomes: C) Social Science:

Students will study and research the history and sociology, including the culture, traditions and government of the Turtle Mountain Band of Chippewa and apply critical thinking and problem solving techniques to community, national, and global problems.

D) Culture/Diversity: Students will be able to consider a variety of perspectives based on differences such as those stemming from culture, heritage, gender, ethnicity, historical development, community and leadership, and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Course Objectives: Students will examine North Dakota's physical development through geological studies and investigations. Students will research and report on the cultural, political, and economic impact of early Native American groups on North Dakota's development. Student will see the role of the US' government in the development of the state of North Dakota. Major emphasis will be on the major role Turtle Mountain people played in the development of North Dakota. Students will study the role of Bonanza farms and the railroads in the populating of North Dakota and developing the state as a major agricultural producer. Students will gain an understanding of the differences between current Federal and State political frameworks affecting people living in North Dakota.

Assessment of HIST 220, ND History, Fall Semester, February, 2012

In doing the assessment, in the fall of 2011, t

Tasha Morin, Semester Narrative Assessment of CJ 275, Gangs, Fall 2011

January 21, 2012

2d. General Education Student Learning Outcomes: Humanities and Social Science: Students will be conversant with the bases and the procedures and techniques by which knowledge and artistic expressions are generated and accessed ...2) the social and behavioral sciences, and they will be able to select a and apply the techniques and procedures ...at a level of complexity appropriate to their TMCC studies.

2e. General Education Student Learning Outcomes: *Culture/Diversity:* Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity,

historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

2f. General Education Student Learning Outcomes: Critical Thinking: Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity, historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

2c. Associate of Arts Student Learning Outcomes: Social Science: Students will study and research the history and sociology, including culture, traditions and government of the Turtle Mountain Band of Chippewa and apply critical thinking and problem solving techniques to community, national, and global problems.

2d. Associate of Arts Student Learning Outcomes: Culture/Diversity: *Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity, historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.*

2g. Associate of Arts Student Learning Outcomes: Technology: Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity, historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Course Objectives: GE 2d/AA 2g: Students should have the ability to understand the origins of gangs, which demographics are present in gangs, and the importance understanding how gangs affect today's society. **GE 2f/AA 2c:** Identify the relationship between gangs and society, and understand how gangs affect immigration regulations, criminal policy, and social institutions.

Become aware of the various types of gang activities. Understand general tactics and concepts of gangs. **GE 2e/AA 2d:** Understand the general tactics and concepts of gangs. Differentiate between social and criminal gangs. Become aware of how each type of gang is formed.

Overall, the average increase in learning when comparing the pre- and post-assessments was 8%. The pre-assessment average was 64% and the post-assessment average was 72%. Initially, eight students were registered for the course. Six of the eight (75%) took the pre-assessment. Four of those six completed the post-assessment; two did not complete the post-assessment. Six students finished the course. All four students that completed both assessments had an increase in learning. The highest percentage of increase in learning was twelve percent (12%). The lowest percentage of increase in learning was four percent (4%). The percentage of increase in learning didn't necessarily indicate a higher final grade. One student with a twelve percent increase received a "B" as a final grade, and one student with a four percent (4%) increase received an "A" as a final grade.

Four students received an "A" for a final grade; two students received a "B" and two students received an "F." Three of the four students that received an "A" as a final grade completed both the pre- and post-assessment. One student that received an "A" as a final grade did not complete either assessment. One student that received a "B" as a final grade completed both the pre- and post-assessment, and one student that received a "B" as a final grade completed only the pre-assessment.

The assessment instrument for this course consisted of twenty-five (25) true/false questions. The questions were drawn from the course goals. Future sections of

this course might benefit from a qualitative assessment instrument that would allow the students to explain their knowledge of gangs. This method might be a more accurate measure of the increase in knowledge, instead of having the students select true or false to a generic statement about gangs.

Leslie W. Peltier, HIST 251, Chippewa History I, Fall Semester 2011

This course fulfills the following goals and objectives:

4. General Education Student Learning Outcomes: Humanities and Social Science: Students will be conversant with the bases and the procedures and techniques by which knowledge and artistic expressions are generated and accessed ...2) the social and behavioral sciences, and they will be able to select a and apply the techniques and procedures ...at a level of complexity appropriate to their TMCC studies.

5. Culture and diversity Student Learning Outcomes: Students will be able to consider a variety of perspectives bases on differences such as those stemming from culture, culture heritage, class gender, ethnicity, historical development, community and leadership and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Associate of Arts Degree Student Learning Outcomes:

C) Social Science: Students will study and research the history and sociology, including the culture, traditions and government of the Turtle Mountain Band of Chippewa and apply critical thinking and problem solving techniques to community, national, and global problems.

D) Culture/Diversity: Students will be able to consider a variety of perspectives based on differences such as those stemming from culture, heritage, gender, ethnicity, historical development, community and leadership, and they will apply this awareness at a level of complexity appropriate to their TMCC studies.

Course Objectives: Identify key events and persons in Chippewa History. Explain Chippewa traditions, value systems and philosophy prior to European/American contact. Trace the migrations of the Ojibway people from the eastern seaboard to present locations. Describe the changes in lifestyle after contact with Europeans/Americans through treaties, land cessions, government policies and missionary perspectives.

Assessment Narration: Student retention in this course was good. Out of 27 students originally enrolled in the course, 25 completed, but not all passed. Two students dropped the course. Five students came to class sporadically, but did not finish the assignments or tests and failed. Out of the 25 students that completed the course 64% passed with an A or B. There were 24 students that took the Pre

Test and 23 took the Post Test. There were just three students that could name all or up to six of the Seven Teachings in the Pre Test and of those answering this question in the Post Test twelve students answered six to seven correctly. This is evidence of an increase in learning the Seven Teachings by 40%. Most - sixteen students listed 0-4 Seven Teachings correctly on the Pre Test. No one left this question blank on the Post Test.

The last question was interesting in the Pre Test most students could only name pow wows (13) or a food (12) that they knew about. Most students left Ceremonies, History, Legends, Treaties blank on the Pre Test. The same question on the Post Test showed quite an improvement; most (19) students answered all parts of question 4 correctly and none left any part of this question blank on the Post Test.

The Midterm Tests: The majority of the twenty-three (23) students that took the Midterm Test passed with an A (12) or B (6). Two (2) students failed the test and one student did not take the Midterm test. The Midterm Test was worth 90 points or 31% of the total 290 points available for the entire course.

Other Assignments: The majority of students, twenty (20) out of the 24 that completed the course completed the assignment. Three students did not complete this assignment and also failed the course. Assignments were worth 100 points or worth 34% of the final grade.

The Final Tests: The majority (8 A) of students passed the Final Test with an A or B (4). Five students earned C two, one D and two students failed the test.

Twenty (20) students passed the class, most with A (10), or B (7). The Final Test was worth 80 points or 30% of the entire 290 points available. There were five students who failed the course. Two of those students failed told me they ran out of money for gas, and I believe them since it has been a hard year economically and tuition is a new factor in student budgets this year.

Conclusions: Students are learning who they are as Anishinaabe, a people who belong to this land and who we have become since contact with the Americans. Students are learning how strong and self-reliant our ancestors were even during the desperation of the reservation era when widespread hunger and disease devastated our people. We must continue to require Chippewa History courses I and II as a graduation standard for students at TMCC because these courses embody the major events of the Mikinock Wajiw Anishinabe, the Turtle Mountain Band of Chippewa. Students gain an understanding how the Treaties and land cessions to the U. S. Government affected Anishinabe then and today. Students learn about the impact of American institutional assimilation enforced by federal policies. Students learn how the Turtle Mt. Chippewa Tribe survived from 1950s Termination era up to present day. Chippewa History I increases student knowledge of the traditional clans, traditional values system, family histories, oral

traditions, and help to preserve our tribal customs for future generations which in turn protects our tribal sovereignty.

As former TMCC Social Science Faculty for nineteen years, my mother, Elma Wilkie used to always say; “You don’t know where you’re going unless you know who you are.”

Math and Science Department Assessment of the Associate of Arts Degree Program

Spring Semester

Math and Science Department

Introduction by Dr. S. Hanson, Math and Science Dept. Chair

All Math and Science Department faculty met at 9:00 am on May 15, 2012 to discuss assessment. Because Ann Vallie did not teach classes this semester, she did not have to do an assessment report. All other instructors submitted FARM

reports, assessment instruments, assessment narratives and syllabi. All of the materials were submitted electronically, which facilitates examination and storage of data.

In terms of student learning, the Associate of Arts degree's value is directly correlated to the amount of learning that a student has accomplished. The Associate of Arts degree at TMCC has value because we have demonstrated that students are learning, although in some areas it is evident that mastering of competencies is still a work in progress.

The Associate of Arts learning outcomes that were covered by courses in our department during the spring 2012 semester were: math, science, technology, critical thinking and communication. In math, students are learning well in some courses but not others, and summaries from the math instructors at the end of this report present the details. Student learning in the science area is usually at least acceptable, and this past semester, it was slightly better than. In the technology area, we assessed how well students learn to use calculators, math learning software, and science lab equipment. The students are learning technological skills at an admirable rate, especially calculator skills. When assessing critical thinking skills in math, chemistry and physics courses, instructors have found the levels of learning to be good and, for the most part, at least at the level expected. Communication skills were only assessed informally in terms of reading the

chemistry lab reports written by students, and thus it is difficult to glean much useful information in this area. We should assess culture since we incorporate it into every class anyway.

Suggested Institutional Changes:

In order to improve student learning, the department recommends student access to Hawkes math learning software on the server; graders to grade math homework; a full-time math instructor to replace Dr. Braaten, who left a year ago; continued funding of Hawkes mathematics learning software on the server; more laboratory space for chemistry and physics courses; and a discussion of study skills and the importance of class attendance during orientation.

Assessment Narratives from Full-time Faculty

Ms. Stacie Blue BIOL 151

Findings: General Biology 151 involves teaching students the content from 31 chapters. To help the students become active learners in the BIOL 151 course I provide notes which include study questions at the end of each chapters, use PPT presentations with diagrams, images, and charts, labs are based on the topic we are going over in class, and do 4 Jeopardy themed review sessions throughout the semester to prepare students for their tests. Overall students stated they appreciated each of the tools that I have incorporated into the course. There were great

responses for which learning tool was most helpful; “ It was nice to have notes to be able to look at the PPT and highlight notes for review”, “The You Should Now Be Able To’s helped to review and learn the material better”, and “Review sessions repeated the lessons and helped put stuff to memory for the test.” Students felt UNIT 5 and 6 were most challenging, reasons why varied from "A lot of information", "Too many chapters" and my favorite "I wasn't in my work really hard stage". They stated ways to make it less challenging are "break the units up more, less chapters per test." The students on average selected "4.AGREE" that the course; increased science knowledge, made them more confident to take further science courses, and learned more in this class as compared to others.

Possible Changes: Using what students recommended I plan to review the notes to ensure it is necessary information that will prepare them for future courses. I will do my best to avoid fluffing the presentations and will make sure that I am spending quality time lecturing for the students not just soaking up minutes because it looks good (SARCASM). I will continue to ensure the labs incorporate the content we are going over in lecture, also the study questions will be continued along with the quizzes. I will continue to do review sessions as long as students continue to take part and use them for good and not just for extra-credit points.

Dr. Deborah Hunter BIOL 202

In Spring Semester, 2012, nine of the eleven students enrolled in the course completed the semester. One of the nine students quit coming to class and lab after the third week but did not drop the course. . Two students dropped microbiology after the midterm deficiencies were mailed. Both students were failing the course due to low attendance and poor exam grades.

Part A. Changes in the microbiology spring semester course as compared to the Fall 2012 microbiology course.

Based on the result of the *Introduction to Microbiology Fall Semester 2012 Assessment*, the percentage of points assigned to worksheets, lab exercises, and exam and quizzes was modified. In the 2011 fall semester the final grade of two students was raised from a D to a B due to 52% of the final grade being based on the worksheets and lab assignments. As indicated in Table A1, in the fall, 2011 students in microbiology earned 29% of their points from take-home and in-class worksheets. Quizzes were not given in the fall semester.

Table A1. Fall, 2011 Microbiology Grading Method

	Syllabus Grading Method	Final Grading Method
Worksheets	25%	29%
Laboratory Exercises	25%	23%
Exams	50%	48%

Table A2. Spring, 2012 Microbiology Grading Method

	Syllabus Grading Method	Final Grading Method
Worksheets	15%	14%
Laboratory Exercises	25%	27%
Exams	60%	59%

In spring semester 2012 the number of worksheets was reduced was reduced to 14% (Figure A2). In-class quizzes were including in the grading method during the spring semester. As indicated in Table A2, more emphasis was placed on exams and quizzes (59%) in the 2012 spring semester, than in the fall 2011 semester (48%). The number of possible points the students earned due to lab exercises and student worksheets increased the student's final grade by only 41% in the spring semester, allowing for only a one letter grade increase over the exam and quiz letter grade (see Part B, Table B1).

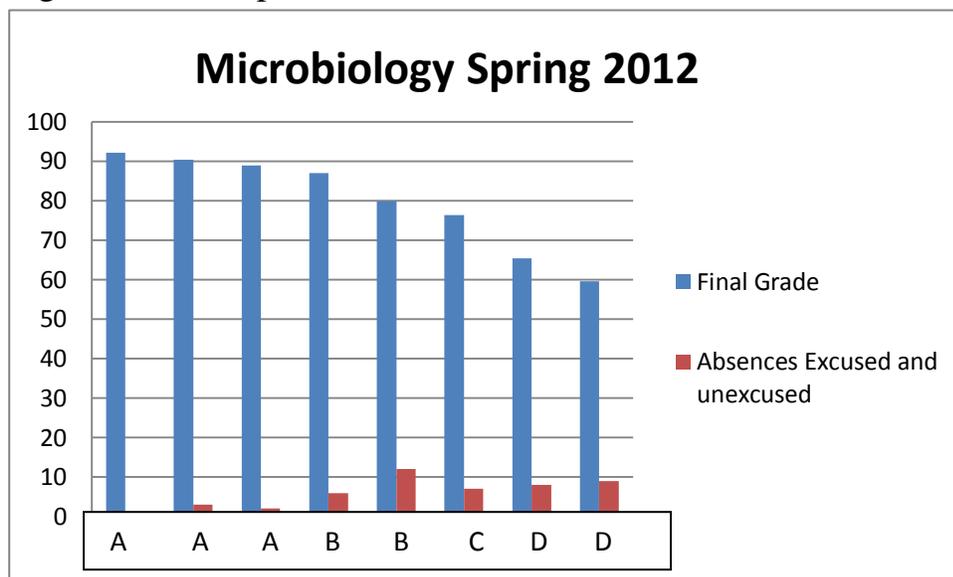
Part B. Comparison of student grades and attendance.

The spring semester final grades and percent attendance are reported in Table B1. A chart comparing absences to the final grade is shown in Figure B1. . All students enrolled in microbiology completed the BIOL 150 Biology I prerequisite, although it is not known if the prerequisite was taken on-line or as a lecture course.

Table B1. Microbiology Student Attendance, Final Grades and Exam and Quiz Grades

Final Grade	Attendance	Exam and Quiz Grades
A (92%)	95%	89%
A (90%)	93%	85%
A (89%)	95%	82%
B (87%)	84%	82%
B (80%)	68%	71%
C (76 %)	84%	61%
D (65%)	82%	53%
D (60%)	75%	46%

Figure B1. Comparison of Student Final Grades to Attendance.



Two students earned 89% and 85% of the points available on the exams and quizzes and received an A for the final grade after the lab exercise points and worksheet points were included.

Two students earned 82% of the possible exam and quiz points. However, after the lab exercise points and worksheet points were included was student earned an A (89%) for the final grade, while the other student earned a B (87%) for the final grade. The difference in the grades is related to attendance and class participation. The student who received the A only missed two classes (95% attendance) through-out the semester due to medical reasons and earned 89% of the total points. The student attended 100% of the labs and never missed an exam, quiz or in-class worksheet. The B-student missed seven classes for unknown reasons. The absences resulted in the B-student missing one exam, three labs one quiz and one in-class worksheet. The student was permitted to make-up the exam and the labs, but not permitted to take the quiz or do the in-class worksheet for points.

As indicated in the microbiology 2012 syllabus, "Student assessment will be based on student attendance and class grades: exams, quizzes, and homework grades will be compared to student attendance, class participation and laboratory

reports. “ The attendance, laboratory reports and class participation of the student with 89% of the total points were definitely more in line with the two students who earned 90% and 92% of the total points, as compared to the student who earned 87% of the total points.

Two students earned a D for the final grade. The student with 75% attendance enrolled in the class one week late and had one excused absence related to a TMCC event. This student was late to lecture by 20 to 40 minutes more than 10 times, which hurt the students comprehension of the lecture material in progress. The attendance of second student who received a D was 82%. This student never missed a lab exercise but habitually left the lectures 30 to 40 minutes early, resulting in missed lectures, comprehension of the lecture material and missed in-class and missed lecture material.

Part C. Student Learning Assessment.

The student learning assessment is based on the results of seven students who completed a pre-assessment exam at the beginning of the semester and completed the comprehensive final exam at the end of the semester. The results of the pre-assessment exam of one student who took the pre-assessment exam but did not attend class or lab after the third week was not included in the assessment, along with the pre-assessment exam for the two students who dropped the course at midterm. Of the remaining eight students, one student enrolled late and did not take the pre-assessment exam. This student’s final exam results are also not included in the exam pre- and post-assessment.

The comprehensive final exam consisted of questions from the pre-assessment test and questions on material covered through-out the semester. There were four exams (or sections) during the semester (including the final); each exam providing approximately 25% of the total exam points. The comprehensive exam consisted of approximately 20% from each section. The questions were developed using the review information at the end of each chapter.

The learning assessment is based on questions asked on the comprehensive final exam that are exactly the same as questions asked on the pre-exam given the first week of the semester or on question present on the pre-exam that are asked on the comprehensive final in a different format. The percent of correct answers on the pre-assessment exam were compared to the percent of correct answers on the comprehensive final exam. Figure C1 is a chart comparing the results of the two exams with identical question. The actual questions and the student results for both the pre-exam and the comprehensive exam are presented in Table C1. Figure C2 is a chart comparing the results of the two exams with the questions asked in a different format and the actual questions and results are presented in Table C2.

Part D. Substitution of Comprehensive Final Exam for Lowest Exam Grade

Through-out the years that I have taught science courses I have tried different methods to encourage students to keep-up with the course work and to study. One semester I indicated the lowest exam grade would be dropped at the end of the semester. This was to encourage students who received a low grade on exams early in the semester to continue to attend the class and study. This method did not work because too many of the students chose to take a zero on the first exam. This was detrimental to the student's future success in the course, as the material covered in the first exam provides a foundation for the rest of the course.

In the 2012 spring semester many of the students (eleven at the beginning of the semester) were disappointed in the grades they received on the first exam. The students requested the opportunity to retake the exam or to do extra credit. Instead of providing a make-up exam or extra credit, I informed the students I would substitute the comprehensive final exam grade for their lowest grade of the semester. The rationale behind this proposal was to give the students a second opportunity to learn the course material presented earlier in the semester.

Table D1 contains data showing the student's grade percentage based on total points through-out the semester before and the final grade was substituted for the lowest grade and after the final grade was substituted for the lowest the grade. The percentage points earned by the students on their lowest exam and the percent points earned by the students on the final are also listed in the table. The substitution changed the letter grade of four students. Three student s went from a high B to an A and one student went from a C to a B. The lowest exam grade earned in the semester for one of the students was the lowest exam grade of the semester. The final exam percentage points earned by this student was not substituted for the lowest percentage points this student earned on previous exams.

Figure C1. Comparison of Identical Question Present on the Pre-exam and Comprehensive Final Exam.

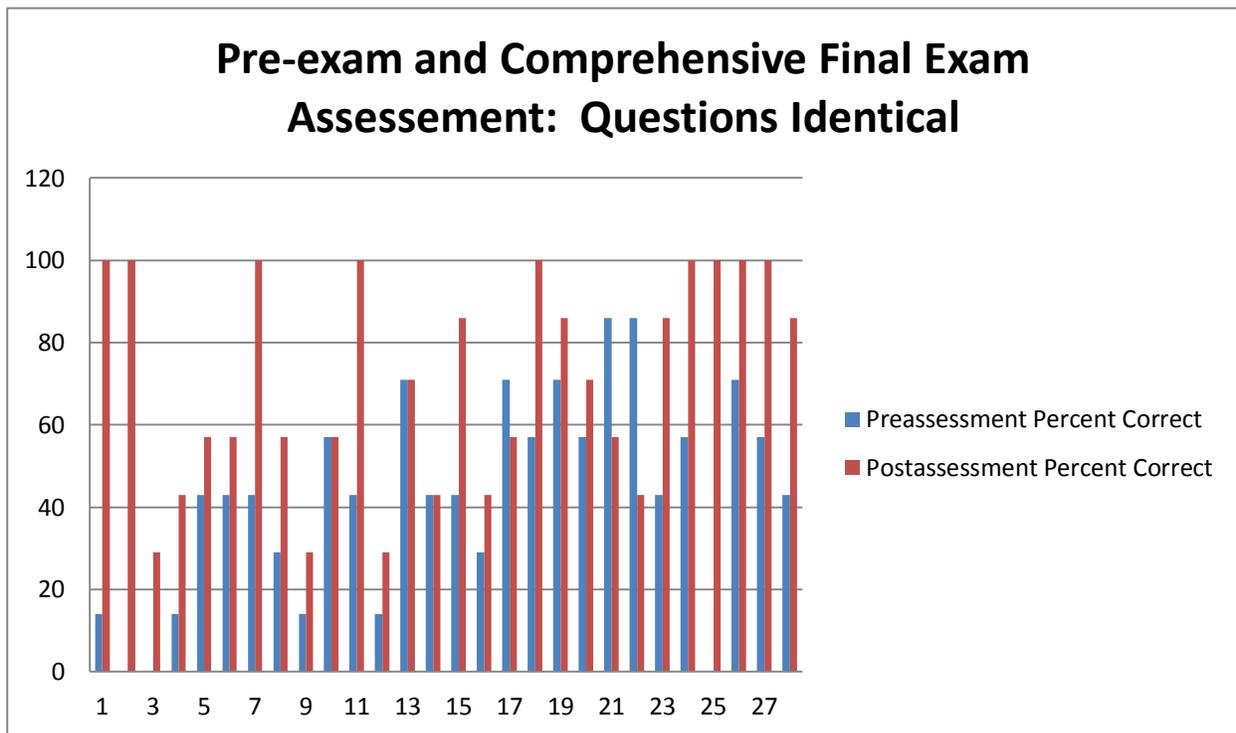


Figure C2. Comparison of Question Presented in a Different Format on the Pre-exam and Comprehensive Final Exam.

Pre-exam and Comprehensive Final Exam Assesment: Questions in Different Format

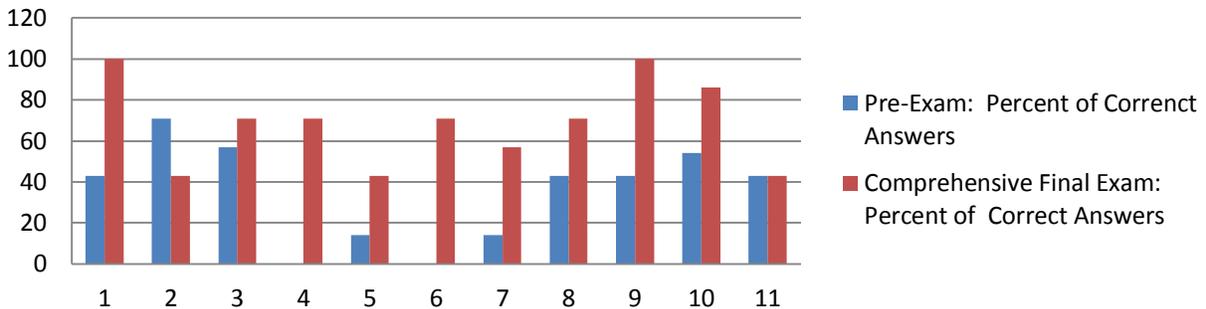


Table C1. Learning Assessment Results for Identical Questions on Pre-Exam and Comprehensive Final Exam.

Identical Questions on Exams	Pre-Exam: Percent of Correct Answers	Comprehensive Final Exam: Percent of Correct Answers
1. The complementary strand of DNA for the following sequence is	14	100
2. What is the mRNA strand of the DNA strand listed below?	0	100
3. The process of proving that a specific microorganism causes a disease is referred to as	0	29
4. A chemical attraction between a positively charged atom and a negatively charged atom is referred to as a	14	43
5. The type of bond formed when a partially positive hydrogen is attracted to a partially negative oxygen found in another molecule is a	43	57
6. The molecule that participates in many chemical reactions, is an excellent solvent, and is a temperature buffer is	43	57
7. Compounds that are insoluble in water and are an important component of the cell membrane are	43	100

8. Activity is determined by the primary, secondary and tertiary structure of the molecules, which consists of twenty different amino acids	29	57
9. Macromolecules consisting of repeating units of a pentose sugar, a phosphate and a nitrogen containing a base are referred to as	14	29
10. When using a microscope the magnification is determined by	57	57
11. Bacteria are classified by: Morphology	43	100
12. Bacteria are classified by: Type of Organelles	14	29
13. Bacteria are classified by: Nutritional Requirements	71	71
14. Bacteria are classified by source of energy: sun, organic or inorganic	43	43

Table C1 (continued)

15. This type of bacteria has a thin peptidoglycan cell wall, an outer membrane, and lipopolysaccharides present in the outer membrane that are endotoxins	43	86
16. The movement of water across a membrane from a high concentration to a low concentration	29	43
17. The movement of molecules from a high concentration to a low concentration	71	57
18. T or F. Prokaryotes and eukaryotes both use ribosomes for protein synthesis	57	100
19. T or F. The ribosomes of eukaryotes are composed of different proteins and a different size, as compared to prokaryotic ribosomes	71	86
20. Organisms that require oxygen to live are referred to as	57	71
21. The process of reducing or inhibiting microorganisms on living tissue us called	86	57
22. The process of removing or destroying all microbial life on an object is called	86	43
23. Microbial death is related to: The number of microbes present	43	86

24. Microbial death is related to: The life cycle phase: diving endospores	57	100
25. Microbe susceptibility to physical and chemical controls	0	100
26. Microbial death is related to: The presence of organic matter (debris)	71	100
27. Microbial death is related to: Duration of treatment (time)	57	100
28. Microbial death is related to: Concentration of microbial agents being used	43	86

Table C2. Learning Assessment Results for Identical Questions on Pre-Exam and Comprehensive Final Exam.

Questions Presented in a Different Format	Pre-Exam: Percent of Correct Answers	Comprehensive Final Exam: Percent of Correct Answers
1. The phospholipid membrane of living cells is composed of _____ and _____.	43	100
2. During transcription a strand of DNA is copied into	71	43
3. The copying of a complementary strand of DNA	57	71
4. Most of the cells energy (ATP) is produced from the breakdown of	0	71
5. Protein synthesis is referred to as	14	43
6. Indicate which Domain the following organisms are classified into: Domain Bacteria (B), Domain Archae (A), or Domain Eukarya (E): Yeast	0	71
7. Indicate which Domain the following organisms are classified into: Domain Bacteria (B), Domain Archae (A), or Domain Eukarya (E): Protista	14	57

8. Identify the following organisms as prokaryotic or eukaryotic: Bacteria	43	71
9. Which of the following have DNA as their genetic material? Bacteria	43	100
10. Which of the following have DNA as their genetic material? Yeast	54	86
11. Which of the following have a cell wall?	43	43

Table D1. Substitution of Comprehensive Final Exam for Lowest Exam Score

Percent Total Points Pre-substitution	Percent Total Points after Substitution	Difference in Percent Total Points	Change in Final Letter Grade	Lowest Grade: Percent Points	Comprehensive Final Exam: Percent Points
89	92	3.53	B to A	66	94
88	90	2.02	B to A	70	86
89	89	0.13	B to A	76	77
86	87	0.55	No Change	74	79
79	80	1.1	C to B	57	65
75	76	1.16	No Change	57	64
62	65	3.23	No Change	30	56
60	60	0	No Substitution	49	35

Part E. Summary

The change in class design in the 2012 spring semester, as compared to the 2011 fall semester resulted in student grades being more in line with the total exam grade (percent) than in the spring semester than the grades in the fall semester. Figure E1A is a chart comparing the student final grade to the total exam grade in

the Spring 2012 Semester. Figure E1B is a chart comparing the student final grade to the total exam grade in the 2011 fall semester. The final grade earned by the students in the spring 2012 semester

The largest disparity in the spring semester is between the student with the total exam grade of 45% (F) and the final grade of 60% (D). The completion of the microbiology labs and in-class worksheets only raised the student's grade (barely) by one letter grade. In the fall semester the completion of the microbiology labs and in-class and take-home worksheets raised the final grade of two students by two letter grades.

The student with the highest number of absences did not receive the lowest grade in the spring semester, as illustrated in Figure B1. However, the two students with the lowest grades were habitually tardy or habitually left early from lecture. These two behaviors contributed to the students' low grades, as the students' worksheets and exams indicated the students did not understand the lecture material.

Although it is difficult to compare the pre-assessment and post-assessment results from the 2012 spring semester to the 2011 fall semester, the overall trend is the student in the spring semester correctly answered a larger percent of the questions on both the pre-assessment exam and the comprehensive final exam than the students did in 2011. In the fall semester 50% of the students had not completed the BIOL 150, Biology I prerequisite. In the spring semester 100% of the students had completed the BIOL 150 prerequisite. What is unknown the difference in age of the students in the fall and spring semester, how many students in the fall semester were first semester students, and how many students needed the course to complete a degree or certificate requirement .

Figure E1A. Comparison of Spring 2012 Final Grade Percent to Total Exam Percent

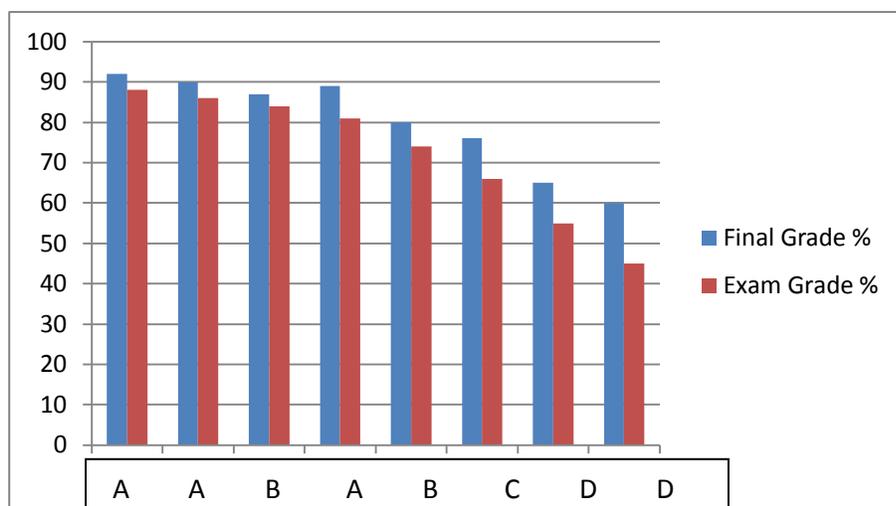
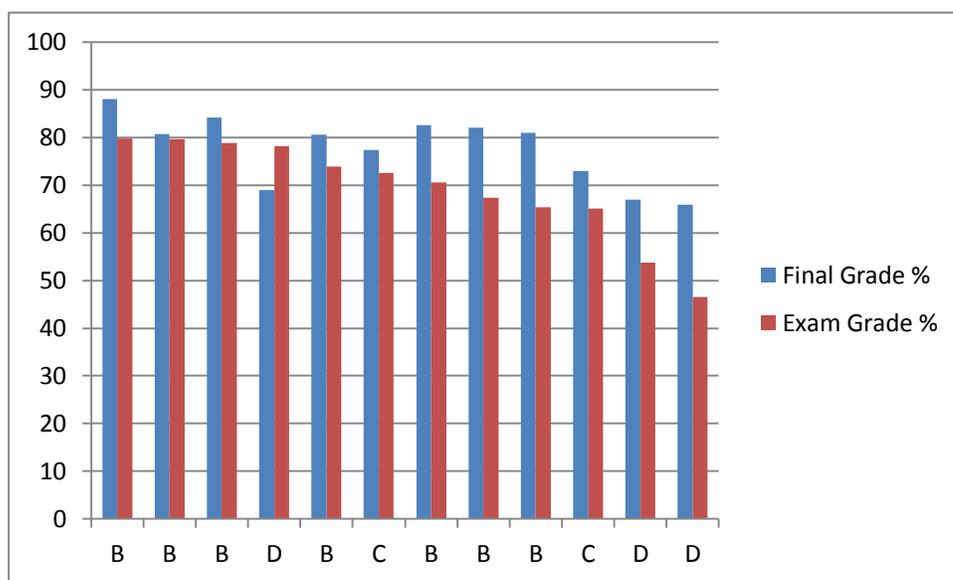


Figure E1B. Comparison of Fall 2011 Microbiology Final Grade Percent to Total Exam Percent



Ms. Audrey LaVallie CHEM122

Chemistry 122 General goals:

Students will know in general:

1. The relationship between three-dimensional molecular structure theory to bonding theory and dipole measurement; between molecular structure and delocalized bonding models.

2. How energy relates to phase; solid, liquid and gas molecular arrangement differences in general.
3. The variety of units used to describe solutions; how solutions are affected by pressure and solute addition.
4. The relationship between reaction rates and mathematical models; how to analyze rate information to solve for specific quantities.
5. The relationship between reaction rates and several methods of predicting direction of the reaction.
6. General criteria for acid or base composition; how acids and bases behave within reactions.
7. How to analyze equilibrium concentrations before and after a reaction using equilibria expressions and constants; apply problem-solving with equilibria information to common ion, buffer, salt solution, precipitation and complex ion scenarios.
8. Use thermodynamic relationships to evaluate for qualitative and quantitative chemical reaction information.
9. The relationship between voltaic cells and electrical potential and mathematical models for finding standard and nonstandard information about the cell.
10. The relationship between reduction and oxidation in species in a reaction and techniques for balancing acidic and basic information into an expanded reaction.
11. Following laboratory written directions and implementing fundamental chemical laboratory techniques with current instrumental technology.
12. Using critical thinking to conduct chemical laboratories; evaluating methodology, analyzing data, calculating numerical outcomes and making conclusions concerning hypotheses.

Chemistry 122 Course objectives (competencies)

10. Molecular geometry (a) VSEPR theory and structures, (b) dipole moment, (c) multiple bonding structures, delocalized bonding
11. States of matter: Liquids and Solids (a) Phase diagrams, energy and phase change (b) crystalline solids and unit cells

12. Solutions (a) expressing concentration, (b) solubility, vapor pressure, (c) bp elevation and fp depression
13. Reaction rates (a) determining rate experimentally, writing rate law expression (b) determining order of reaction, 1st order vs 2nd order problems (c) Arrhenius equation, mechanism in steps
14. Chemical equilibrium (a) determining equilibrium expression and constant, (b) equilibrium quotient and Le Chatelier's Principle
15. Acids/bases: (a) Arrhenius, Bronsted-Lowry, Lewis concepts, (b) ionization of water and pH
16. Acid-Base equilibria (a) acid and base ionization equilibria expressions- simple problems (b) problem-solving with common ion effect and buffers and salt solutions
17. Solubility and complex-ion equilibria (a) solubility product equilibria with common ion effect and precipitation calculations, complex ion formation
18. Thermodynamics and equilibria (a) using standard enthalpy and entropy and Gibbs free energy for prediction of reaction spontaneity, (b) relating free energy to K_c and temperature change
19. Electrochemistry (a) identifying oxidation and reduction processes in reactions, writing redox half reactions, (b) oxidation-reduction in acid and basic solutions, (c) notation in voltaic cells, standard cell emf's and electrode potentials, (d) emf's and K_c , Nernst equation.
20. Laboratory implementation: a) understanding written directions, b) using fundamental chemical laboratory techniques, c) successfully operating current instrumental technology, d) using critical thinking to determine the effectiveness of the methodology, to calculate numerical outcomes and evaluate their validity, and to

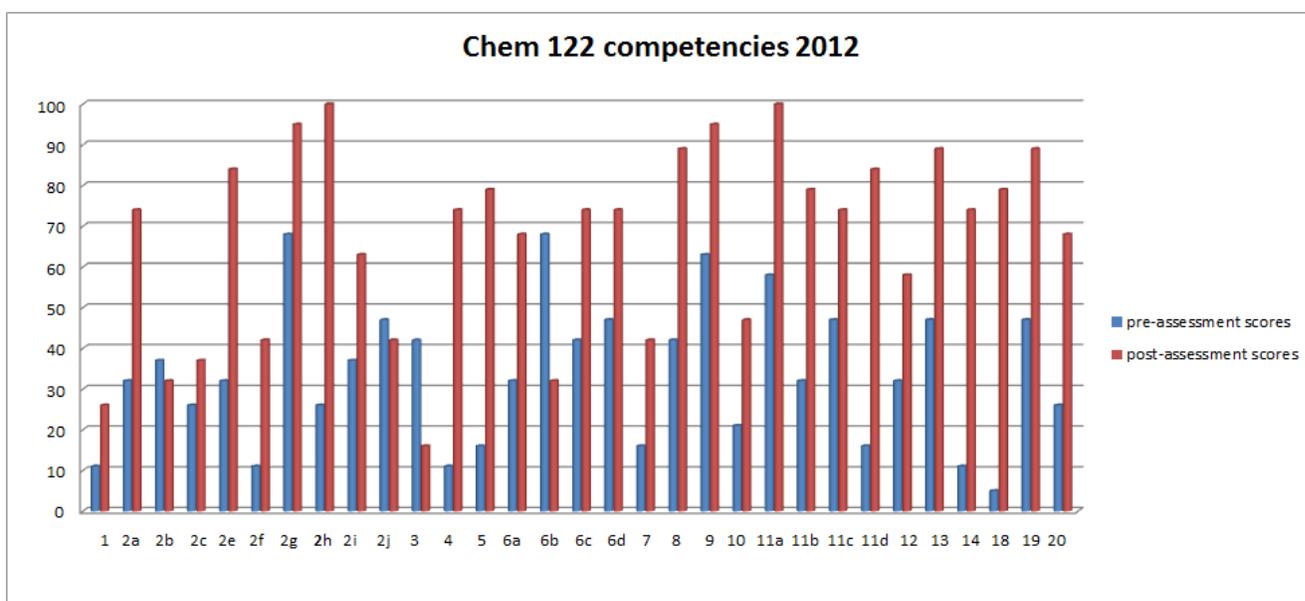
analyze data to arrive at a plausible conclusion.

Comparison of pre-assessment and post-assessment tests:

Pre-assess. Question #	Competency (objective)	Pre-assess. % right	Post-assess % right	Percent increase
1	10	11	26	15
2a	19	32	74	42
2b	19	37	32	-5
2c	15	26	37	11
2e	10	32	84	52
2f	15	11	42	31
2g	14	68	95	27
2h	14	26	100	74
2i	16	37	63	26
2j	16	47	42	-5
3	10	42	16	-26
4	11	11	74	63
5	11	16	79	63
6a	11	32	68	36
6b	11	68	32	-36
6c	11	42	74	32
6d	11	47	74	27
7	15	16	42	26
8	16	42	89	47
9	10	63	95	32
10	10	21	47	26
11a	12	58	100	42
11b	12	32	79	47
11c	12	47	74	27
11d	12	16	84	68
12	13	32	58	26
13	13	47	89	42
14	13	11	74	63
18	19	5	79	74
19	18	47	89	42
20	18	26	68	42

Communication, critical thinking and technology assessment:

Assessment tool	competency	pre-assess % students passed	post-assess % students passed	average lab grade
Lab grade	20	-	100	98



Statistical Analysis Commentary and Strategies for Improvement

Percentage increase in correctness of answers to selected competency questions was good overall, but not as high as in previous years. However, the difference is deceptive in that pre-assessment scores were high; students were advised not to guess since the pre-assessment was not used for any other purpose but assessment, but this class was noticeably very concerned with any type of evaluation form, and proceeded to hand in detailed and thorough pre-assessments, in opposition to answering styles in previous years. Guessing, unfortunately, cannot be prevented on multiple choice questions, but in future the pre-assessment form may have to adopt an open question format.

Post-assessment questions were the same as pre-assessment questions, or very like them, and were embedded into the four course examinations, with the idea that students would be very serious in their answers since outcomes would determine final grades and not just an assessment statistic.

As an instructor, my attention is most drawn by scores that are low in absolute percentage or low in percentage gain, after adjusting for pre-assessment inflation.

There were several questions which needed to be looked at: 1, 2b, 2c, 2j, 3, 6b. Question 6b looked the worst in terms of percentage gain, which was the lowest at -36, but this was almost certainly due to an inflated score on the pre-assessment. This question asked about locating the melting point of a substance on a phase diagram for one substance, which was easy enough to locate for most students without much prior experience. The post-assessment question, however, had been worded somewhat differently, and required that students not only locate the melting point line, but name processes involved in changing temperatures and pressures. This was somewhat more complicated and only 32% got it right, but that is still not an abysmal percentage.

Question 2c was also not too bad, with 37% getting it right, but the preassessment showed 26% right, so there was only a gain of 11%. Question 2c on the pre-assessment was identification of a diprotic acid, and on the post-assessment was concerned not only with identifying a polyprotic acid, but correctly predicting that it was a strong acid and all proton would be released into solution. This was another case of the post-assessment question being slightly more complex and leading to a poor percentage gain, although absolute percentage was not that low.

Question 1 was concerned with identifying a resonant structure, which just plain had a low pre-assessment and post-assessment score. Most of the students missed the fact that the resonant structure, which they had to draw on the post-assessment, had three forms instead of the usual two for most examples. Had it been a simpler example, scores would have been higher, I am sure.

Question 2b was identification of the usual oxidation state of oxygen, which should have been well known from the first semester, and, indeed, 37% of the students got it right on the pre-assessment. However, this is another case of the post-assessment question being a compound question which was more difficult; not

only did the student have to know the usual valence electron number of oxygen (and its usual oxidation state), but had to give information on the formal charge as well. Although the question was more complex, students should have done better on formal charges anyway.

Question 2j was a question about what generally would occur in an equilibrium expression in the case of strong acid or base added to a buffer. The pre-assessment score was probably high due to good guessing, but the post-assessment was somewhat lower, probably because those types of questions are not multiple choice later on. The absolute percentage was 42, which was not too bad.

The question of greatest concern was 3, which asked students to select the molecule with greatest dipole moment. Although it was selected well on the pre-assessment, selection of the correct answer was low on the post-assessment. The percentage correct on the post test was only 16%, which is of concern in an absolute sense. Additional homework may be necessary for this.

In terms of corrective strategies, several years of assessment have led to a number of changes in terms of additional worksheets and supervised homework sessions which have led to better overall ability of most recent classes, although scores may seem lower. (Prior classes could do very little in terms of working out non multiple choice questions, and now they do them regularly). Some of the lower scores are due to multiple choice pre-assessment tests, which I plan to phase out.

Related Academic Data

As educators well know, instructor techniques and explanations are not necessarily the deciding factor in student success. Simplifying or omitting competencies may work against students later on in their career and is not an option for most instructors. Most student success is directly related to student preparedness and work habits. This is usually evident in the range of student grades which result for any class. Students cannot always control their academic background, but are expected to adhere to prerequisite requirements, homework assignments and attendance recommendations in order to pass the course and improve their overall academic preparedness.

The following table shows the grade differential for the chemistry 122 class in 2012, with additional information on attendance and homework grades:

Course grade	% students	Avg absences per student	Avg homework grade	Avg lab grade
A	21	2	98	98
B	58	7	74	98
C	21	10	61	100
D	0	-	-	
F	5	35	*	*

*One student stopped attending in mid semester and did not drop the course, and thus received an F. Homework grades and lab grades were not used for statistical purposes (above); nor were pre-assessment scores or incomplete post-assessment scores used for overall assessment statistics.

As in former years and in former assessment instruments, there is a clear correlation between a lower overall grade and average absence. Statistical correlation is unnecessary in the case of simple tallies when performance (grade) is already established as being related to parameters such as absence and homework completion, as any perusal of educational literature will show. Homework completion is also lower for students with lower overall grades. Most students in this class were avid lab attendees and had no problem achieving grades close to 100, whether they attended the lecture portion of the course regularly or not.

Luther Olson MATH111

As this is only the second semester that I have been teaching the Algebra I courses, I don't have a very lengthy history of data to compare this semester's data with. That being said, this semester's numbers were disappointing in a variety of areas. Last semester I started out with 62 students in my Algebra classes. This semester, there were only 43. Last semester ended with 31 students remaining

(50% retention rate) but this semester ended with only 14 students (33% retention rate). Additionally, the average post-assessment score for these 14 students was only a 51.9% compared to last semester's 31 students averaging a 70.2%.

It disturbs me to think that this semester's students only retained about half of the concepts by the end of the semester. It is possible that this just happens to be a rare occurrence but I am looking at trying some different approaches next fall. My Promethean Board is finally working properly. I plan to use this, along with some other technologies, to create a library of my class presentations that can be uploaded to our course management system – Jenzabar. These lessons will be available for not only my face-to-face students to access any time they want, but also for my online students. I am considering the benefits of an inverted classroom but haven't decided how I might incorporate it yet. Once these class presentations are posted on Jenzabar, the students could view the class presentations on their own time and that would free us up to use more class time for guided practice with students working on problems.

An ongoing issue from semester to semester is poor attendance. Posting my lessons might benefit students who are absent as they will still be able to view the classes they missed. Perhaps this will allow those students to get caught up and not fall so far behind that they feel it is hopeless. It should also benefit my online

students as they will be able to view me teaching the lessons that they otherwise would not be able to see.

One last comment is that our feeder class to Algebra I (Intermediate Algebra) was taught by adjunct faculty last fall (and this spring). These were primarily the students who were in my Algebra I classes this spring. I feel it is critical that TMCC hires a full-time math teacher to replace the one who left a year ago. I believe this will improve the quality of education for our math courses that are at the developmental level, and in turn will strengthen the program throughout all levels. The end result will be a better education for our students in the Associate of Arts program.

Mr. Miles Pfahl MATH112

This is the 2nd semester that MATH 112 has used the computer based Hawkes program for delivery of course material. There was a significant increase in student success this semester opposed to last semester's initial change to the Hawkes program. Fall 2011 success rate in MATH 112 was 52.2%. Spring 2012 success rate in MATH 112 was 74.2%. This shows a 42.1% increase in student success.

After looking at the progress and final results from this semester's MATH 112 classes, I am certain that making the move to align TMCC's math offerings using the Hawkes Learning system had and will continue to be a great benefit for our students in our math courses. Based on this information TMCC should continue to support the cost of the Hawkes program course material in its annual bookstore budget.

Fall Semester

Summary by Dr. S. Hanson

The mathematics goal was assessed by Luther Olson and Miles Pfahl in the mathematics courses that they taught. In MATH111, Mr. Olson found that, on the whole, the students learned a lot. They had the most trouble learning relations, functions and their graphs. In MATH112, Mr. Pfahl saw that his students learned well. The area of the class in which they learned the least was the polynomial functions area, though they still learned an admirable amount about polynomial functions. Audrey LaVallie, physical science instructor, also reviewed the mathematics skills of her CHEM121 students and found that they did not learn

their math skills as well as they should have. The reason was probably that they were too distracted by the chemistry that they were dealing with at the same time. Ms. LaVallie, physical science instructor, assessed the communication, mathematics, critical thinking, science and technology goals of the AA degree in her CHEM121 General Chemistry course. She assessed the communication goal through the lab reports that students write. Thus, it could be considered technical communication. In general, the students did not learn much communication. More specifically, they seemed to flounder when organizing their communication. Ms. LaVallie also assessed the critical thinking goal, which she assessed with her homework and lab activities. The students did not do well with critical thinking mainly because they haven't grasped the basic facts and figures of chemistry and therefore have difficulty going on to the next step, which is critical thinking. Ms. LaVallie and Dr. Hunter assessed the science goal in their classes. Most of the assessment of this goal was accomplished through a written assessment instrument. Both instructors found that students did not learn science as well as they should. It seemed that the students had motivation problems.

Suggested Institutional Changes:

More laboratory space is needed for science courses, as well as additional physical science and life science faculty to handle the teaching load. This would improve

the teacher-to-student ratio in classes where 20-35 students are enrolled. Ms. LaVallie would like to change the prerequisites for the CHEM115 and 121 courses.

Assessment Narratives from Full-time Faculty

Dr. Deborah Hunter: BIOL 202

Part A. A Comparison of Microbiology and Anatomy and Physiology I

In the fall 2011, 12 of the 14 students enrolled in the course completed the course work. Two students, who did not attend lecture or lab except at the beginning of the semester, dropped the course at midterm. The grading method listed in the syllabus, the final grading method and the earned grades are listed in Table 1A. The final grades and percent attendance are listed in Table 1B. In addition, students are identified as having completed the BIOL 150 General Biology prerequisite prior to enrolling in the course.

Table 1A. Microbiology Grading Method

	Syllabus Grading Method	Final Grading Method
Worksheets	25%	29%
Laboratory Exercises	25%	23%
Exams	50%	48%

Table 1B. Microbiology Student Attendance, Grade, and Prerequisites

Grade	Percent attendance	Completed prerequisite prior to enrolling
B	98	no
B	96	no

D	91	no
D	91	no
B	88	
B	86	
B	85	
C	82	
D	80	
B	79	
B	71	no
C	70	no

As indicated in Table 1B, three of the students who had not completed the course prerequisite received a B as the semester's final grade. One of the students who did not have the prerequisite earned a C and two of the students who had not completed the course prerequisite received a D as the semester's final grade.

The student listed in Table 1B who earned a D with 80% attendance and had completed the prerequisite had a high absentee rate at the beginning of the semester resulting in a deficiency slip at midterm. The student's attendance improved but the student did not turn in six worksheets and did not attend the make-up lab for three labs, bringing the student's grade down to less than 70%.

Table 4 is a list of BIOL 220 Anatomy and Physiology I (AP I) grading method, attendance, final grade and completion of prerequisites. The prerequisites for AP I are BIOL 150 and CHEM 115. I have included this table in order to compare the microbiology results to Anatomy and Physiology.

In microbiology, where the exam was 48% of the final grade, the lab 23% and the in-class and take-home worksheets were 29% of the final grade, 58% of the students received a B, 25%, 17% received a C, and 25 % received a D. In AP I, where the exams and quizzes were 52% of the final grade and worksheets only 15% of the final grade, 10% of the students received an A, 26% received a B, 32% received a C, 16% received a D and 16% received a F.

To rephrase the data, 36% of the students in AP I received an A or B. The grading method required more independent studying on the part of the students in API than the grading requirements for the 58% of student in Microbiology who received a B. The quizzes in API were not pre-announced and the worksheets in AP I were in-class worksheets, as compared to not giving quizzes in Microbiology and having both in-class and take-home worksheets. The overall distribution of grades for Microbiology and API are illustrated in Figure I.

Two of the students who received an F in AP I quit coming to class after midterm. The third student quit attending class in mid-November. The students in Microbiology who quit attending the class dropped the course after receiving midterm deficiency notices.

Table 2A. Anatomy and Physiology Grading Method

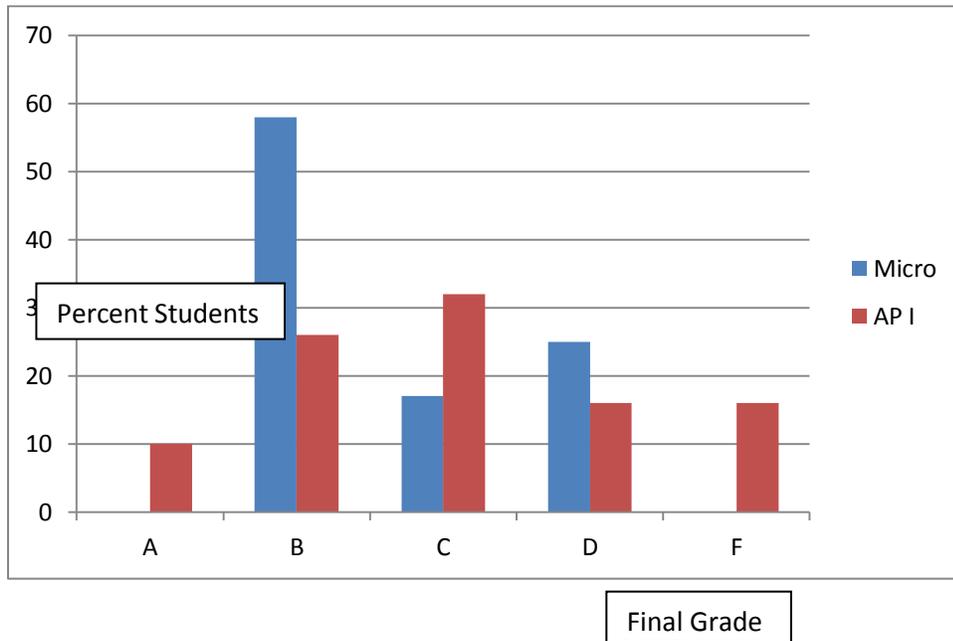
	Syllabus Grading Method	Final Grading Method
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Worksheets	25%	15%
Laboratory Exercises	25%	33%
Exams & Quizzes	50%	52%

Table 2B. Anatomy and Physiology Attendance, Grade, and Prerequisites

Grade	Percent attendance	Completed prerequisite prior to enrolling
A	94	
A	91	
B	79	
B	85	
B	79	
B	89	
B	74	
C	64	
C	74	
C	92	
C	77	
C	87	
C	85	
D	81	
D	71	
D	77	
F	49	no
F	79	
F	50	

Figure 1. Comparison of Microbiology Final Grades to Anatomy and Physiology Final Grades



Part II: Microbiology Pre-Test and Post-Test Assessment

Eleven of the students enrolled in Microbiology took a Pre-assessment test the first week of class. Of the eleven students, one dropped the course. The remaining ten students completed the post-assessment test, which was the comprehensive final exam. Nineteen of the questions on the post-assessment exam were equivalent to questions on the pre-assessment exam. The results are listed in Table 3.

The results of the assessment are mixed. In the post-test assessment eleven of the questions were answered correctly by greater than 40% of the students when compared to the pre-assessment test. Four of the questions in the post-test were answered correctly by 20% or fewer of the students. Three questions were answer

correctly by more students on the pre-assessment test than on the post-assessment test. The areas with the greatest deficiency were:

- Classification of organisms: yeast is a fungus
- Classification of bacteria: anaerobe versus aerobe and facultative anaerobes
- Characteristics of all living organisms: organisms with a cell membrane.

These deficient areas will be addressed in Part III of this assessment.

Table 3. Results of the Pre-assessment Exam and Post-assessment Exam for Ten Students

Question Topic	Pre-assessment % Correct	Post-assessment % Correct	Percent Questions Correct on Both the Pre- and Post-assessment
Prokaryote Definition	40	80	40
Yeast is a fungus	50	30	20
Lipid Function (phospholipid membrane)	40	70	30
Energy in the form of ATP	40	80	40
Understanding Glycolysis	10	70	10
Diffusion definition	50	40	30
Osmosis definition	30	80	30
Anaerobe versus an aerobe	40	10	10

Facultative anaerobe definition	0	40	0
Understanding of Photosynthesis	10	100	100
Understanding of Aerobic Respiration	0	30	0
DNA Replication definition	20	70	10
Translation definition	10	20	0
Messenger RNA function	10	70	10
Transfer RNA function	20	80	10
Organisms with DNA in Nucleus	10	90	10
Organisms with DNA in the cytoplasm	10	60	10
All Organisms have a cell membrane	80	10	
All eight organisms with a cell membrane identified correctly		10	
Seven organisms identified correctly		40	
Six organisms identified correctly		10	
Five organisms identified correctly		20	
One organism identified correctly		10	

Part III: Assessment of the Microbiology Comprehensive Exam

The microbiology comprehensive final exam consists of 43 questions totaling 117 points, plus an additional 2 extra credit questions for an additional possible 5 points. The focus of the evaluation will be on basic questions that every student who completes microbiology should be able to answer correctly.

In late October the students were given a take-home worksheet entitled, *What the student should already know*, attached in Appendix A. Even though the worksheet was a take-home assignment and the students could use the text, many of the students answered the question incorrectly or did not know how to answer the question. The students were informed that the topic area addressed in the worksheet would also be on the final exam. Table 4A is a list of the number of students who answered the topics correctly. Table 4B is a list of the number of students who classified organisms correctly.

Table 4A. Comprehensive Final Exam results based on, *What every student Should already know*.

Question Topic	Number Correct out of 12 Students	% Correct
What is a prokaryote?	11	92
What is a eukaryote?	11	92
Proteins are composed of? (amino acids)	8	67
Nucleic Acids are composed of phosphate, sugar and nitrogen base	7	58
Lipids are part of cell membrane	10	83
Complementary DNA strand	11	92
Replication Definition	8	67
Translation Definition	2	17
Complementary RNA strand	10	83

Methionine start codon AUG	9	75
Identify the anticodon	11	92
Identifying organisms with a cell membrane	1	8

Table 4B. Comprehensive Final Exam results based on, *What every student Should already know.*

Classification of organisms as belonging to Domain Bacteria or Domain Eukarya	Number Correct out of 12 Students	% Correct
Fungi	3	25
Yeast	3	25
Protozoa	5	42
Protista	5	42
Helminthes	9	75
<i>Plasmodium</i>	6	50
<i>Streptococcus</i>	11	92
<i>Bacillus</i>	12	100
<i>Ascomycota</i>	0	0
<i>Girardia sp.</i>	8	67

As indicated in Table 4A, seven out of twelve of the topics present on the worksheet and the comprehensive exam were answered

correctly by 75% or more the students. Two of the topics were answered correctly by 50% to 60% of the students and two of the topics were answered incorrectly by less than 20% of the students. The topics least understood by the students, based on 60% or less of the questions answered correctly, were:

- Classification of organisms: cell membrane
- Protein synthesis: translation
- DNA replication
- Nucleic Acid composition

In Table 4B is a list of organisms that were to be classified as belonging to Domain Bacteria, Domain Archae or Domain Eukarya. Less than 50% of the students were

able to identify and classify fungi and protozoa as belonging to Domain Eukarya.

Greater than 90% of the students were able to identify the two bacteria,

Streptococcus and *Bacillus*, as belonging to Domain Eukarya.

The students were also asked to classify organisms as protista, fungi, nematodes, platyhelminths or virus. During the final exam the students were allowed to use the protozoa worksheet and the virus cards previously prepared by the students.

Information was present on the protozoan worksheet which would aid in identifying the protozoa listed and the virus listed on the exam. The results are presented in Table V.

Table 5. Classification of organisms

Classification of organisms	Number Correct out of 12 Students	% Correct
<i>Plasmodium</i> (protozoan)	6	50
Girardia (protozoan)	6	50
<i>Influenza</i> (virus)	11	92
<i>Entamoeba histolytica</i> (protozoan)	4	33
<i>Toxoplasmosis gondi</i> (protozoan)	8	67
Tapeworms and liver flukes (playhelminthes)	9	75
<i>Rhizopus</i> (fungi)	3	25
<i>Entrobium vermicular</i> , pinworm (nematode)	5	42

Fifty percent or fewer of the students correctly identified the protozoa listed as protozoa, even though the students were able to use the protozoa worksheet. In contrast, 75% of the students identified tapeworms as Platyhelminthes (platy-flatty worms) without access to any information of worms. In contrast only 42% identified the pinworm as a nematode. Only 25% of the students identified the common bread mold *Rhizopus* as a fungus. *Influenza* was identified as a virus by 92% of the students.

The students were also able to use the virus cards to identify virus causing specific diseases. There were eight questions that required the identification of a virus. Three of the viruses were correctly identified by 75% of the students. One of the viruses was identified by 33% of the students, while the remaining four viruses were identified by less than 50% of the students. The student who did not prepare viral cards did better than some of the students using the cards. One of the twelve students did not bring the viral cards to class and one of the students did not prepare viral cards.

Part IV. A comparison of similar questions asked on the Microbiology and AP I final exams.

The topics covered during the first couple weeks of lecture in Microbiology and AP I were similar and very similar questions were asked on the comprehensive exams. A comparison was made between the results of similar questions asked on both course comprehensive exams. The results are presented in Table 6A.

Table 6A. A comparison of similar question present of both the Microbiology and AP I final exam

Topic on exam	% of Students Correct in Microbiology	% Students Correct in AP I
Proteins are composed of amino acids	67	100
An acid releases H ⁺	25	79
Nucleic acid composition	58	63
Osmosis definition	80	74
Water importance	75	95

Overall, 20% or more of the students (19) enrolled in AP I correctly answered similar questions on the comprehensive exam correctly, as compared to the Microbiology students (12). Slightly more (6%) microbiology students provided the correct definition for osmosis, as compared to the AP I students.

Three of the students enrolled in microbiology were also enrolled in AP I. The microbiology final exam was one day prior to the AP I final exam, providing time for the students to review the microbiology question, although the students did not know similar questions were on the AP I exam. The results are presented in Table 6B. The results support the previous conclusion that the students lack an understanding of nucleic acid composition.

Table 6B. A comparison of student answers for students enrolled in both Microbiology and AP I

Topic on exam	Student 1		Student 2		Student 3		% Correct in both courses
	Micro	API	Micro	API	Micro	API	
Proteins are composed of amino acids	+	+	+	+	-	+	67
An acid releases H ⁺	-	+	-	-	+	+	33
Nucleic acid composition	+	-	+	+	-	-	33
Osmosis definition	+	+	+	+	+	+	100
Water importance	+	+	+	+	+	+	100

Part V. A comparison of Microbiology exam, lab and worksheet results to the final grade.

The student's final grade is based on the total number of points from the exams, labs, and assigned worksheets. In order to determine if the final grade submitted

for each student reflects what the student learned in Microbiology, a comparison was made between the exam percent/grade, lab percent/grade and worksheet percent /grade and the final submitted total percent/final grade. The results are listed in Table7.

Summarizing the results presented in Table 7:

- 25% of the student’s final grade reflected the results of the four combined exams.
- 42% of the student’s raised their final grade by one letter grade due to lab and worksheets, as compared to the combined exams.
- Approximately 17% of the students increased their final grade by two letter grades due to lab and worksheets compared to the combined exams.
- One student’s final grade decreased by a letter grade due to not completing the labs and worksheets.

Table 7. Microbiology: A comparison of the final grade to the work effect in class.

Total Percent/Final Grade	Exam Percent/Grade	Lab Percent/Grade	Worksheet Percent/Grade
88.0/B	79.8/B	100/A	87.3/B
80.7/B	79.6/B	99.5/A	67.6/D
84.2/B	78.8/C	100/A	77.5/C

69.0/D	78.1/C	77.5/C	46.3/F
80.6/B	73.9/C	89.5/B	80.6/B
77.4/C	72.5/C	93.5/A	72.8/C
82.6/B	70.5/C	98/A	87.1/B
82.0/B	67.3/D	100/A	88.2/B
81.0/B	65.3/D	98/A	90.2/A
73.0/C	65.1/D	100/A	65.6/D
67.0/D	53.7/F	99.5/A	59.1/F
65.9/D	46.5/F	97.5/A	69.7/D

A similar comparison between the final grade and the four combined exams plus five quizzes was done for AP I. The results are presented in Table 8 and the results summarized below.

- 37% of the student's final grade scores matched the combined exams and quizzes.
- 42% of the students increased their final grade by one letter grade due to lab and worksheet performance, as compared to the combined exams and quiz grade.
- 11% of the student's final grade increased by two letter grades due to lab and worksheet performance, when compared to the combined lab and quiz grade.

Table 8. Anatomy and Physiology I: A comparison of the final grade to the work effect in class.

Total Percent/Final Grade	Exam Percent/Grade	Lab Percent/Grade^a	Worksheet Percent/Grade
90.3/A	90.2/A	95.7/A	70.9/C
99.5/A	83.5/B	107.6/A	98.6/A
87.2/B	82.6/B	92.4/A	76.0/C
82.0/B	82.0/B	83.9/B	68.2/D
88.6/B	79.6/B	100.7/A	86.0/B
79.2/C	76.3/C	89.8/A	55.1/F
70.0/C	75.6/C	67.4/D	46.8/F
82.0/B	70.6/C	100.5/A	72.1/C
70.3/C	68.2/D	81.3/B	53.5/F
78.8/C	63.8/D	97.5/A	81.3/B
80.1/B	59.8/D	104.2/A	87.2/B
71.7/C	59.5/D	88.5/B	69.9/C
57.7/D	59.2/F	61.5/D	31.4/F
68.3/D	58.6/F	95.9/A	30.7/F
75.0/C	51.2/F	103.1/A	88.7/B
62.8/D	46.8/F	86.0/B	56.8/F
45.5/F	43.5/F	41.6/F	54.1/F
54.1/F	34.7/F	108.6/A	58.4/F
33.7/F	33.4/F	30.3/F	35.5/F

^aExtra credit on the lab midterm resulted in some students earning greater than the 100% possible points

Figure 3A is a chart illustrating the comparison between the final Microbiology letter grades compared to the final grade percent and to the combined exam grade percent. The chart illustrating the comparison between the final AP I letter grades compared to the final grade percent and to the combined exam grade percent is presented in Figure 3B.

Figure 3A. Comparison of Microbiology Final Grade Percent to Total Exam

Percent

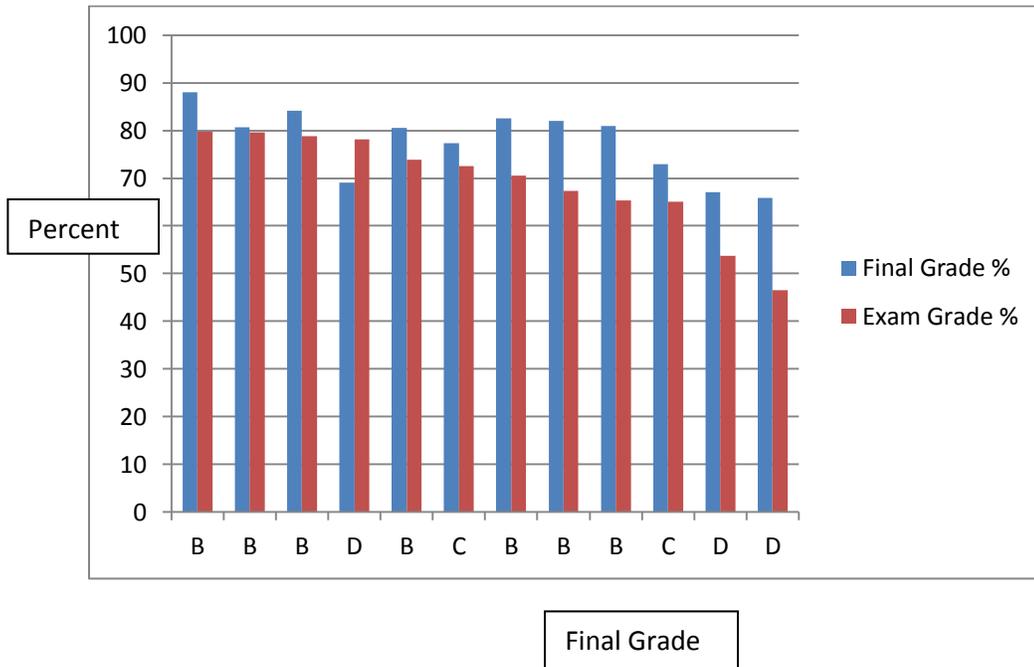
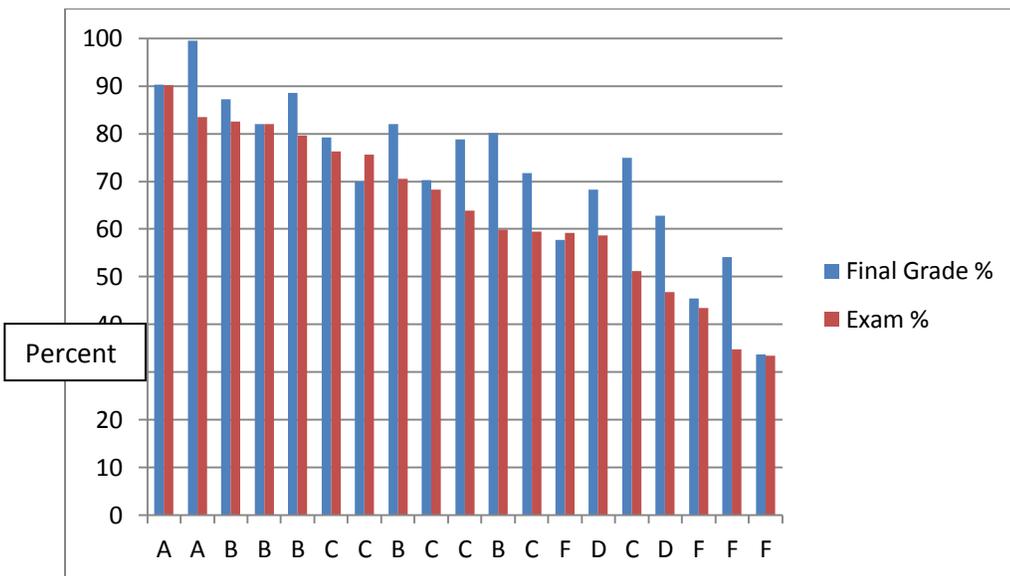


Figure 3B. Comparison of Anatomy and Physiology Final Grade Percent to Total Exam Percent



Final Grade

Part VI. Class attendance compared to the final grade.

Lecture and lab attendance were plotted against the final course grades for both Microbiology and AP I students. The results for Microbiology are illustrated in Figure 4A and the results for AP I are illustrated in Figure 4B.

There is no little to no correlation between students who received a B, C or D for Microbiology or for API.

Figure 4A. Microbiology class attendance and final course grade

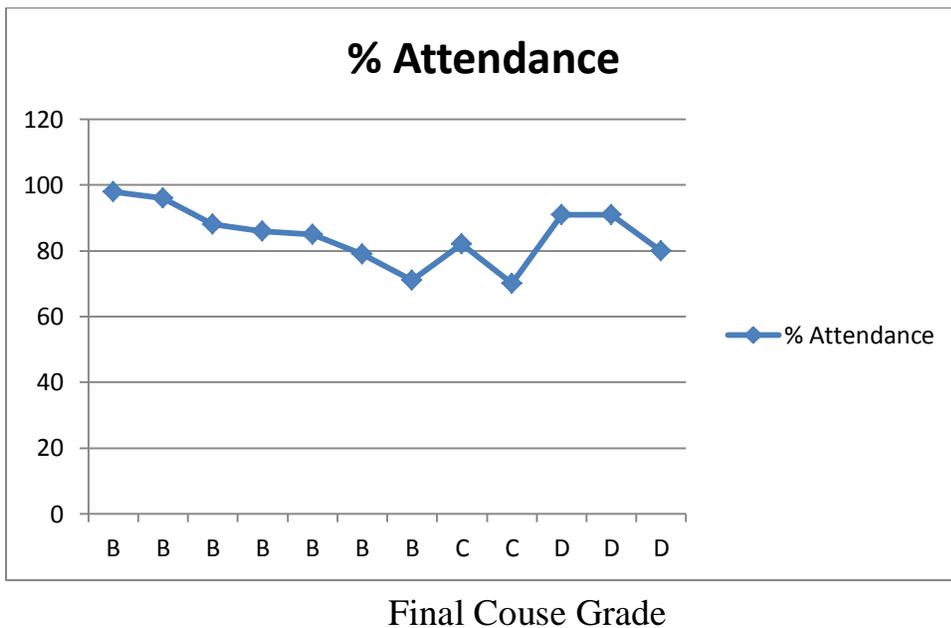
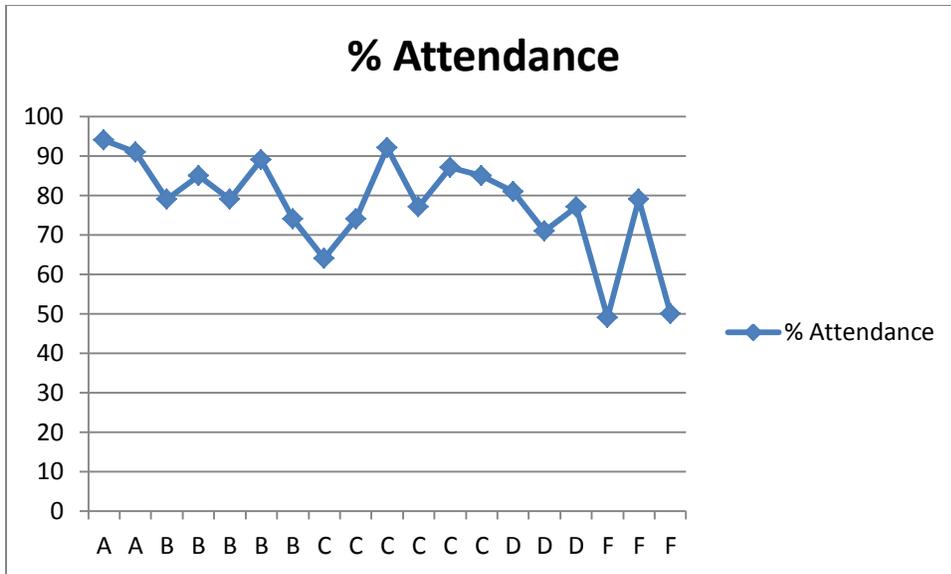


Figure 4B. AP I class attendance and final course grade



Final Course Grade

VII. Conclusion

In microbiology 25% of the students' final grade matched the grade earned on the exam, while 42% of the students enrolled in Microbiology received a better-than-average final grade (B) even though the in-class exam grades indicate most of the students' knowledge of the presented course material was equivalent to the average grade (C). The students are required to participate in laboratory exercises and in-class and take-home worksheets and the combination of the lab and worksheet assignments contribute to 52% of the final grade, raising some students' (42%) final grade by one letter grade.

The same trend was observed in AP I. In AP I 37% of the students' final grade matched the grade earned on the exams plus quizzes. As determined for

Microbiology, 42% of the students' final grade was raised one grade level due to lab and worksheet performance.

What is of concern is the number of students whose final grade was raised by two letter grades due to homework and lab assignments. In Microbiology 17% of the students raised their final grade by two letter grade levels, while in AP I 11% of the student's final grade was raised two grade levels.

Although the students received the grade they earned, based on total points, I do not believe the students demonstrated the level of understanding that I wanted to see. Overall, fewer than 55% of the students in microbiology were able to classify microorganisms as prokaryotes, eukaryotes or classify the organisms into the correct Domain, even though 58% of the students received a B for the final grade. The students did not have a good background of the basic characteristics of all living organism or a basic understanding of proteins, lipids and nucleic acids.

What the student should already know worksheet was provided to the students shortly after midterm because of a concern for the lack of a basic understanding of biology and microbiology observed in previous exams and worksheets. At this

time I was not aware that six (50%) of the students in the class had not completed the BIOL 150 prerequisite.

Three major differences between the method of instruction in Microbiology and AP I are:

- Quizzes were sporadically given in in API without student prior knowledge.
- The worksheets were all in-class worksheets. The students had to use the book and complete the worksheets within the time allowed. Make-ups were permitted when a medical slip was provided by an absentee student.
- Lab midterm exam.

The AP I students were required to learn and retain the material throughout the semester.

In microbiology the students were allowed to take the worksheets home and were provided a turn-in deadline. Worksheets were handed in late, some were of poor quality and it was obvious that some students' had extra assistance with their worksheets. There were no quizzes in microbiology or a lab midterm. The low percent of microbiology students who correctly answered the classification

questions, with the aid of the protozoa and virus cards, raises the question as to whether the students read the protozoa worksheet or if the information the students provided on the virus cards had any meaning or contained information copied from the book without meaning or understanding.

Future changes in the way Microbiology will be taught include:

- The addition of sporadic quizzes
- Worksheets will be done in-class, in a designated time limit.
- Study aides will not be permitted for use on the final exam.
- A lab midterm exam will be included in the course, requiring the students to apply the lab assignments to the lectures.

The students will be required to read the text and retain the information learned by reiterating the topics in future lecture and lab. The new system in Jenzabar will also prevent the enrollment of students who lack the prerequisite for the course.

Ms. Audrey LaVallie: CHEM121

Discussion of assessment scores, problem areas, suggestions on improvement:

The first two questions (#1, #2) on the assessment instruments catch the immediate attention of the reader due to both the high pre-assessment scores and the fact that

for #1, the post-assessment score is actually lower. The two questions are about simpler subjects- discerning between physical and chemical properties, and distinguishing between mixtures and pure substances, respectively; as such, scores should have been higher all around, but it appears that those who knew about the subject were the only ones to recall correct answers later, and even a few of those must have forgotten some details. That is probably the explanation, but, unfortunately, there is always a negative gain question on every comparison that we have done,

Five other questions were of some concern because of the low post-assessment scores (below or near 50%); these are the descriptions of those competencies:

Question #3 (Competency 2a- Identify isotopes, ions, atomic #, mass #; do simple calculations): This question asked students to calculate density, and there are some overtones of metric calculation (competency 1) in the problem. This was another question asked very early in the semester and was notable for the fact that students had a hard time recognizing density as a physical property, and, more importantly, working algebraic problems and identifying units.

Question #4d (Competency 2a- Identify isotopes, ions, atomic #, mass #; do simple calculations): This question asked students to identify ions as charged entities and to find the ionic charge on nonmetals listed in a table that the students were free to access. The final percentage of students getting the correct answer was 55%, which was not abysmal, but probably should have been higher when a table was available.

Question #13a (Competency 4b- b. Solve molarity and dilution problems): This problem involved solving a classic problem of dilution by using molarity and volume. The problem was not particularly difficult, but seemed to be a problem to students algebraically.

Question #14 (Competency 4b- b. Solve molarity and dilution problems): This was another example of a molarity problem and using a simple definition of molarity to solve for moles of a substance, molarity itself, or volume of the solution. Again, math seemed to be a problem.

Question #15 (Competency 5b- use gas laws to find temp, pressure and volume):

This problem involved calculation of gas volume, pressure, moles or temperature using the ideal gas law.

None of the problems listed above was a complete loss; the worst case was question 13a, which involved a pre-assessment score of 0% and a post-assessment score of 27%. This means that approximately 30% of the students understood the principle and could do the math- and the probability is that the higher scoring students were those with higher overall grades. Most of the questions on the assessment instruments ended up with final percentages well into the 70-90% range- showing that the majority of students were working very hard.

One of the themes which comes back again and again in looking at these scores is that basic math skills are seemingly a problem. We often see this right away at the beginning of the semester when students have to take a metric quiz after a week or so of “review.” The average score on the metric test after a week or more of “review” was 73; this is not a particularly high score and this was after going over everything, including metric conversion, significant figures, scientific notation, and factor labeling. The latter are fundamental skills. It is apparent that fundamental math skills are lacking amongst students and that algebra skills are weak, often for

students transferring directly from the high school. The prerequisites for Chemistry 121 include two years of high school algebra or one year of college algebra. Since incoming freshmen have not had time to take college algebra, they must have had two years of algebra. However, there is no way to check on this and ascertain that both courses were taken successfully.

I think that there is a good case here to go by the math placement tests that freshmen have to take in order to take any math courses at the college. If the students cannot place into Math 111 or above, I think that Chemistry 121 should be postponed until later. There are also prerequisites for chemistry- students have to have taken either Chemistry 115 at the college or taken chemistry recently in high school. Unfortunately, there have been a number of students with rusty chemistry and math skills who have enrolled in Chem 121; they had taken pertinent courses more than five years previously, sometimes up to 10 years or more in the past. The college is hesitant to make it a necessity to take remedial courses mandatory for students in these cases, but there will probably be a problem with students scoring low on competencies in Chemistry 121 if the problem is not addressed.

Test questions and competencies (state and course objectives):

Question # Objective number (from list below):

Metric test

1	1
2	2
3	2
4a	2
4b	2
4c	2
4d	2
4e	4
5	2
6	2
7	2
8	3
9	3
10	3
11a	3
11b	3
11c	3
12	4
13a	4
13b	4
14	4
15	5
16	6
17	7
18	4
19	8
20	8

Competencies Chem. 121 (30)

1.Measurement skills:

a. sig figs and rounding

- b. metric conversion, units and simple calculations
 - c. Accuracy and precision
 - d. Scientific notation and instrument measurement
- 2. Atoms, Molecules and ions:
 - a. Identify isotopes, ions, atomic #, mass #; do simple calculations
 - b. name compounds, types of bonds, polyatomics
 - c. write and balance reactions
 - d. chemical vs physical properties; mixtures, types of atoms
- 3. Calculations with chemical formulas and reactions:
 - a. Calculate molecular mass, percent mass, moles to mass
 - b. determine empirical and molecular formulas
 - c. find limiting reactant, theoretical and percent yield
- 4. Chemical reactions introduction:
 - a. Describe types of reactions and identify components such as oxidation
 - states, redox status
 - b. Solve molarity and dilution problems
 - c. Predict solubility and activity
 - d. ID acids/bases, relative strength, titration problems
- 5. Gases: pressure measurement;
 - a. gas general behavior
 - b. use gas laws to find temp, pressure and volume
 - c. calculate partial pressures
- 6. Thermochemistry: balancing heats of reaction expressions;
 - a. describe types of energy and measurement of it

- b. ID exo and endo reactions; balance enthalpy in equations
- c. Use Hess' Law or standard enthalpies of formation to find reaction enthalpy

7. Quantum theory:

- a. Describe properties of electromagnetic spectrum, waves and emission/absorption spectra;
- b. use wave and Planck's equation to predict wavelength, frequency
- c. Describe quantum numbers relative to electron behavior,

Aufbau

8. Electron configurations:

- a. Give electron configuration, Hund diagram, and Lewis diagram for any atom or ion
- b. Predict periodicity of main elements (ionization energy, electron affinity, electronegativity)

Mr. Luther Olson: MATH111

Overall course results for students initially registered into the course at the beginning of the semester.

Course	A	B	C	D	F	Dropped	Total
MATH	4	1	3	2	7	8	25

111A							
MATH 111B	3	4	3	2	6	7	25
MATH 111O	1	1	3	0	6	9	20
MATH 102O	0	0	1	3	8	10	22
MATH 130A	1	3	2	1	4	1	12
MATH 212A	1	4	0	1	0	3	9
Totals	10 9%	13 12%	12 11%	9 8%	31 27%	38 34%	113

Summary:

39% of students registered in the courses passed.

27% of students registered in the courses failed.

34% of students registered in the courses dropped.

Of the 31 students who received F's, only 0 (0%) had attendance of 75% or higher.

Of the 31 students who received F's, only 4 (13%) completed the course (actually took the final test).

For purposes of defining *course success* and identifying *students retained*, I have defined students who have actually completed the course as “students who have taken the final test.”

Course	Students Completed	Students Passed
MATH 111A	12	10
MATH 111B	14	12
MATH 111O	5	5
MATH 102O	4	4
MATH 130A	7	7
MATH 212A	6	6
Totals	48	44

Summary: 92% of students who completed the course passed.

Mr. Miles Pfahl: MATH112

Recommendations for *institutional* changes based findings:

MATH 112 is one of the exit courses for completion of the 2 year Associate of Arts degree. This is the course which the majority of our students will complete to satisfy the AA math requirement. In order for a student to take MATH 112, they must have successfully taken MATH 111, which when combined with MATH 112 satisfies the AA math requirement. This semester there was a change in course material used for students in MATH 112. In past years and semesters MATH 112 has been offered strictly as a traditional face to face course using a traditional textbook to complete the course material. This semester, based on the recommendation of the TMCC math department, the MATH 112 courses switched

to using the computer based Hawkes Learning system for course work completion. This move aligns MATH 112 with TMCC's other math offerings, which have been using the Hawkes Learning system for 5 years. There was some concern for this semester's MATH 112 students due to the fact that they completed MATH 111 in a regular traditional math situation completing the course material using paper/pencil out of a textbook and now they must make the adjustment to finishing their math requirement with a computer based program. There was a period of initial shock and grumbling from some students about using the computer based learning system, but as the semester progressed, I believe most students came to realize that the Hawkes Learning system gave them a better opportunity to learn the material. After looking at the progress and final results from this semester's MATH 112 classes, I am certain that making the move to align TMCC's math offerings using the Hawkes Learning system will benefit future students in our math courses.

Course Analysis

Overall course results for students initially registered into the course at the beginning of the semester.

Course	A	B	C	D	F	Dropped	Total
MATH 100 O	2	0	2	0	8	2	14
MATH 112 A	0	4	3	2	5	4	18

MATH 112 B	2	0	0	1	1	1	5
MATH 103O	1	3	5	2	2	2	15
<u>MATH 105A</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>11</u>
Totals	8	10	13	5	16	11	63

Summary:

57.1% of students registered in the courses passed.

25.4% of students registered in the courses failed.

17.5% of students registered in the courses dropped.

Of the 16 students who received F's, 14 of the 16 had attendance lower than 70% or were enrolled in an online course.

Of the 16 students who received F's, 2 of the 16 completed the course (actually took the final test).

For purposes of defining *course success* and identifying *students retained*, I have defined students who have actually completed the course as “students who have taken the final test.”

<u>Course</u>	<u>Students Passed</u>	<u>Students Completed</u>
MATH 100O	4	4

MATH 112A		9		11
MATH 112B	3		3	
MATH 103O		11		11
MATH 105A		9		9
Totals		36		38

Summary: 94.7% of students who completed the course passed.

he students gained an average of 20% points when comparing the results of the pre and post-tests. After analysis of the results from the spring of 2011, changes were made on the assessment instrument, the emphasis of the instruction, and changes in student assessment throughout the semester.

On the assessment instrument which consisted of multiple choice and true of false questions, some of the ambiguity was eliminated and questions were rephrased for greater clarity and understanding. Students appeared to have better understanding of what was being assessed.

The emphasis of the instruction was to ensure that items on the test were covered during the semester of instruction. Not to teach to the test but to cover those important concepts relative to the course and to correctly assess them.

There was more frequent assessment of learning by use of quizzes, reports, and homework assignments to get more accurate feedback on student learning. This was in contrast to the previous semester of a mid – term and final test.

The analysis of the pre and post assessment will be an ongoing process as constant revision and analysis of student outcomes are an important component of course delivery and attainment of course and institutional objectives.

Teacher Education Department—Spring Semester

The teacher education department consists of four faculty members and one data tracking specialist support staff. Student workers are hired as the need presents itself. The department is supervised by a department chair that facilitates all correspondence between TMCC and the state teacher licensing agency. All faculty members work as a cohesive group in the development and implementation of the curriculum and assessment system utilized to evaluate the program and its constituents. Two Bachelor's degrees are offered through the department with another in a pending status with the Higher Learning Commission. Thirteen students graduated from the Teacher Education program in May 2012 (five in secondary science; eight in elementary education). Turtle Mountain Community College continues to lead the state in the number of secondary science composite degrees conferred. Our graduates are highly sought after and many have already been offered jobs within the local community school systems.

Faculty members in teacher education are diligent in their approach to education; which is evident in the design and thought provoking methodology invoked in their course preparation. Many hours are taken to include the latest information and research findings with regard to best teaching practices and techniques utilized in classrooms across the country. This report contains the data informed narrative of the spring 2012 semester in Teacher Education. In all cases faculty* introduced a pre-test at the beginning of the semester. This instrument provided a baseline data-point for each student in their course. In most applications the same test was offered as a post-test at the close of the spring 2012 semester. A comparative analysis was done of the two scores and conclusions were developed describing sources of student weakness in content comprehension as well as areas that invited instructor examination with regard to student outcomes and successes. Instructors used Jenzabar as a delivery method for the assessment in most cases. The following courses represent the Spring 2012 FARM report from the Teacher Education Department: EDUC 320 Native Issues in Education, Teaching, T& L 310 Intro to Early Childhood, EDUC 331 Learning Environments, and EDUC 406 Science Methods and Materials.

EDUC 320 Native Issues in Education is designed to provide in depth knowledge of the political and historical relationships between Indian people and education. Much of the course is centered upon the contemporary consequences of

the historical trauma that Indians have sustained in the name of education, and provides a keen opportunity to discuss solutions to the ongoing problem of dysfunction in the current BIE/Public school systems in which Native students are enrolled. Mr. LaFountain reported that his students gained 52% in their understanding of the content of this course over the spring 2012 semester. In addition he stated in his report that he felt that face-to-face instruction was the best method to convey the information in EDUC 320. He hopes to involve the students in more inquiry based and interactive activities in the future to enrich the course and make really connections between his students and the material covered.

T & L 310 Intro to Early Childhood was taught by Kathy Henry. This is considered an entry level course in the Early Childhood program curriculum as well as the CTE Early Childhood provider program. It is designed to give the student a general overview of the field of early childhood education. Especially important is the development of skills necessary to design age appropriate educational practices that provide for the needs of young children in several domains (social/emotional, cognitive, and physical development). Mrs. Henry reports that her best successes in this course come from providing students with clear objectives and expectations through the use of multiple rubrics for her coursework. In addition, her FARM report indicates that the small class size allows for strong group interactions in the classroom. Areas of weakness were in reading

comprehension and poor writing skills on the part of the student. These weaknesses impacted student success on multiple assignments which can be difficult to overcome as far as the final grade. Kathy reports that she is in favor of doing this course as a hybrid in the future but concedes that it takes much instructor guidance in order for students to fully comprehend the material. The scores between pre-test and post-test increased by 25 percentage points. She did not have an excessive number of absences in the course and that was reflected in the final scores for her students, many of whom had significant family responsibilities.

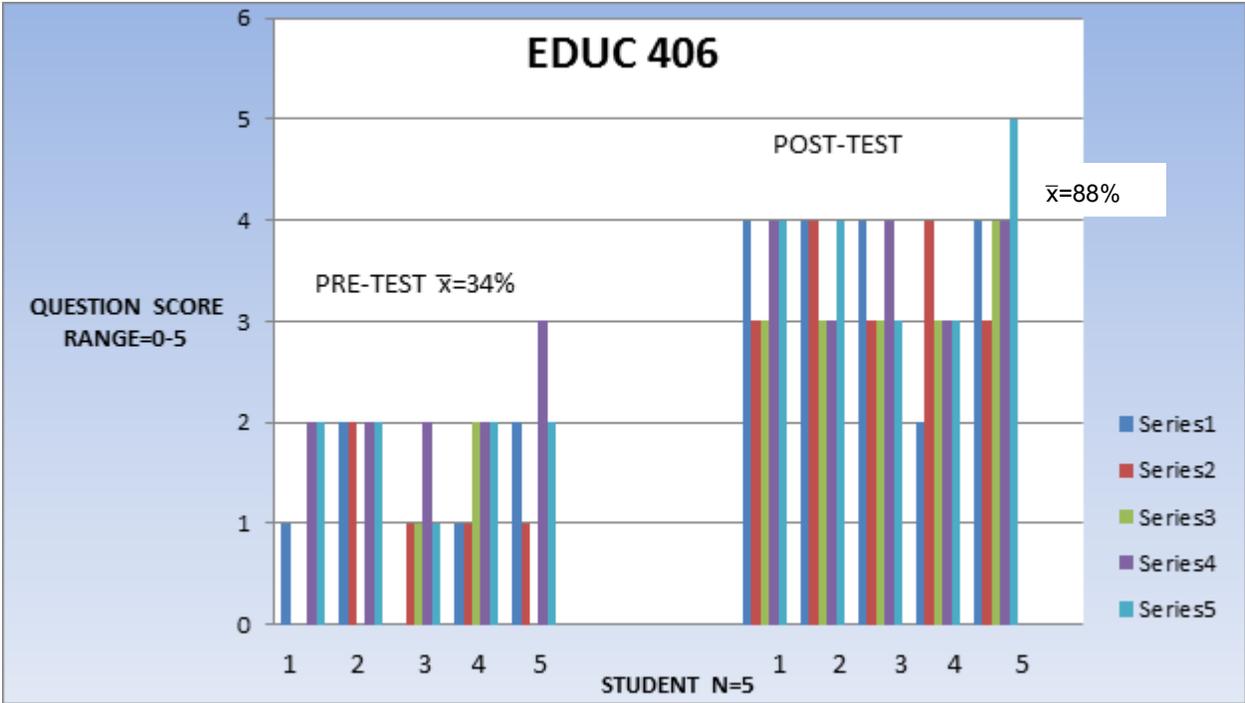
Learning Environments (EDUC 331) is offered second semester of the junior year for cohort members at TMCC. Kristie Dionne is the instructor and offered a brief narrative of her course and its participants. The statistical findings of spring 2012 were as follows: the pretest average score was 15% and the posttest average score was 93%. Six students participated in the pretest and those same six students took the post test. From my overall assessment of this class, I would make the following recommendations: (a) some students have an inadequate background in reading and writing, so I would strongly recommend they utilize the language lab at TMCC for assistance in their writing. These same students would probably benefit from taking EDUC 325 Writing for Teachers prior to entering the cohort. This would give them a review of writing basics before entering the classes in the

cohort that require professional writing; (b) recommendation would be a change in the expectations of my curriculum for this class in order to spend more time in the local elementary school classrooms. Our students need as much time in the classroom as possible to observe classroom management, behaviors of students, school policies, learning and teaching styles, routines, and cultures of the school. I feel this would benefit the students prior to student teaching. I believe these adjustments to EDUC 331 Learning Environments will give the students more authentic experiences in education.

Finally, EDUC 406 Science Methods and Materials was conducted this semester. There was 43% attrition in this course. Many of the problems involved family issues that were not directly associated to the course material and workload. Contrary to other EDUC course assessments, I chose not to use Jenzabar as a tool for the pre-post-test. Instead the instrument studied five key areas that were deemed as primary outcomes of the course: science inquiry, science tools in the elementary classroom, science literacy, assessment of learning, and Deep Teaching. Students gained by 54 percentage points overall with the greatest gains being made in understanding of science inquiry in the elementary classroom. Lesser student achievement was seen in areas of assessment and the development of authentic assessment instruments for measuring K-8 student learning. Future enhancements would be to enter field based classrooms more than once in the

semester, and also finding more science kits for students to use in the development of their lessons with elementary children. Specifically, the use of simple science tools (thermometers, graduated cylinders, balance beam scales, and beakers) needs to be more strongly emphasized. The use of technology really made gains in this course this semester as the instructor was much better versed in the use of whiteboard applications and was able to provide stronger guidance in this area for the students. The added benefit for next semester will be the opportunity for in house training through the TMCC IT department in Promethean training for our teacher education students.

*Jason Dahl did not submit his materials as the course is ongoing at this time.



Series 1	Series 2	Series 3	Series 4	Series 5
Sci. Literacy	Deep Tching	Sci Inquiry	Assessmnt.	Sci. Tools

Respectfully,

Carmelita Lamb-Department Chair

Teacher Education—Fall Semester

Teacher Education Department Assessment Report

Fall 2011

The spectrum of courses assessed within the Teacher Education Department (TED) during the Fall 2011 semester was diverse in content. Instructors submitted data from a pre-admission course, a TED Reading and Reading Diagnosis course, a hard science secondary science curriculum course, and an advanced technology course for students in the Bachelor's degree teacher education program. The diversity also encompassed the detail with which assessment data was submitted. 50% of the instructors simply submitted the FARM report form and ancillary documents with very brief descriptions of areas for future improvement. In one instance the instructor referenced the benefits of an institutional reading/writing lab. This request has been a frequent entry in FARM data. The same instructor emphasized how important it is to take the teacher education students to area schools for direct observation of veteran teachers in the classroom. The practice of field experience has become more prominent in the assessment of teacher education programs by state licensure agencies. One of the greatest obstacles for TMCC students in meeting this benchmark is related to finances and vehicular stability.

The following is an excerpt from the Planetary Science assessment.

This was a separate narrative written by the instructor and attached to the

FARM report:

Planetary geology is very much about comparative planetology. By the end of the course you should appreciate that by looking at processes and geologic history visible on one planet, we can learn volumes about the processes and histories of other planets, including our own. Our scientific exploration of the solar system ultimately increases our understanding of ourselves. The assessment instrument chosen for this course was a standard pre-test/post-test taken by the students at the beginning and end of the semester. The format was an online, multiple choice test of material covered during the course. Completion of each earned the student a small amount of extra credit. This format is of limited usefulness in that it tends to assess lower Bloom's Taxonomy levels than other course assessments. They are, however, relatively easy to interpret, provided a significant number of students complete both the pre-test and the post-test. Of the 7 students to actively participate in the

course, 5 students completed the pre-test, of which 4 completed the post-test. The student who earned the best overall grade in the class opted not to take the post-test. This complicates interpretation of the results.

Overall, students showed a marked improvement in post-test scores relative to pre-test scores. Scores of students completing both the pre-test and post-test improved from an average of 36.8% to average of 59%, an absolute improvement of 22.2%, and a relative improvement of 60.3% compared to the average pre-test score. The best improvement of - 36% absolute or 224% - relative was achieved by an initially low-scoring individual, and improvement tended to decrease with higher pre-test scores.

This narrative was accompanied with statistical data and representative charts. It was a complete analysis in a very scientific framework. At the end of the report the instructor acknowledged that he would be more cognizant of student perceptions of what 'hybrid' actually means. He found that students were assuming hybrid was the same as online and did not attend class regularly. In addition he found that setting a

time limit on the on-line test was necessary as some students spent an inordinate amount of time 'clocked in' to an exam. The final comment from the instructor had to do with support through Student Services. He was not informed if students who did not attend his class were still actively enrolled or not. Their names remained on the class-list which was confusing to the instructor as he did not meet them in person nor had any on-line contact with these students.

The fourth instructor provided a detailed analysis for areas of her instructional improvement in the course. She mentions her dependence on being a good role model instructionally for these students who are just beginning to consider a career in the education field. The instructor provided a number of strategies to improve the course overall and also outlined a 'Plan of Action' for meeting the proposed changes she deemed necessary to make the course better. The following passage was taken directly from her FARM report:

Students are withdrawing from the course when first of three mini lessons are to be presented. High absenteeism when first mini lesson is to be presented (time limit doesn't allow to be made up). High

absenteeism results in students not being able to learn from peers presenting or teacher critiques. Subject matter to be taught [is] too broad for students to understand –choosing a skill and teach one objective. Facilitating information from lecture, group work, according to a chapter in text book and students not retaining important information and utilizing that information in their mini lessons, reflections, or quizzes or exams (such as differentiated learning styles, deep learning theory, Bloom’s Taxonomy and constructivist theory).

Plan of Action:

- A. Change course syllabi to show four mini lessons; 1st mini lesson completed by a group of 3 to 4 students, 2nd mini lesson completed by 2 students, and the last two mini lesson done solo.

The instructor provided numerous strategies for improvement in her plan of action. It was apparent that instructor three and four viewed the FARM report as an integral part of the overall assessment of the department. The chair of this department will bring this high range of variability in reporting

styles forward in the next departmental meeting.

Career and Technology Education: Assessment Report

CTE Spring Semester

Reported by Marilyn Delorme

A total of ten Faculty Assessment Report Matrices (FARM) reports were received. Three full time Instructors, Nursing Faculty and one Adjunct Faculty did not report at the time this report was submitted to the coordinator. The fact of adjunct faculty reporting assessment was cited in the State CTE review. I foresee more reporting from adjunct faculty in the future. This past semester there were seventeen instructors under CTE. The EMS department is still currently vacant. Assessment for CTE did not change dramatically from last semester. However, some programs did develop a new assessment tool. In reviewing the FARM reports it is apparent

that the CTE Instructors follow the goals and objectives reflected in their syllabi. They all encourage critical thinking and adapt well to the wide diversity in their student populations. In January all CTE Programs were involved in a review conducted by the North Dakota Office of Career and Technical Education. (Report available on request) This visit included a review of course material, testing methods, assessment tools, resources, facilities and student records.

This review had a very positive outcome with only minor recommendations many of which have been addressed and corrected. As suggested by the Assessment Coordinator I did request copies of requisitions reflecting items needed in last semester's FARM reports. A number of requisitions were turned in and the items requested were received. Including a promethium board, software, videos, and reference books. Others I did not receive follow up information on. Most of these involved equipment. A few of the same items are mentioned in reports for this semester.

Narratives were received from the following programs, Pharmacy, Med Tech, Phlebotomy, Key boarding and Accounting. (Attached) As I reviewed the FARM reports that I did not receive narratives on, I have concluded that these Instructors value the importance of hands on training, students learning from other students, and that students have the opportunity to exhibit their

skills in community projects. It appears that the statistical values between pre and post testing have an improvement range of 85 to 90%. There were also improvements in Math skills

The statement made by Ms. Karen Solomon from HLC concerning the fact that the Commission is actually going to be more interested in program review that individual classes, was very encouraging. This will allow the opportunity to show that CTE competency based assessment is an effective measurement of Career and Technical Education Program outcomes.

However, to effectively evaluate assessment for the CTE Department, there must be more than one Chair.

Respectfully Submitted by Marilyn Delorme, CTE Chair

ATTACHMENTS: Faculty Assessment Reporting Matrix

(FARM)

This is the narrative report for Pharmacy Technician Orientation Spring 2012 PHRM 116 A & B IV & Sterile Product Preparation 2 credits.

This FARM is a tool to assess and improve the IV and Sterile Product class for the spring semester 2012. The instructor's goal was to have the students apply their critical thinking skills to competently prepare sterile products for

injection.

OBSERVATIONS: For spring 2012, the classroom/laboratory continues to be an excellent setting to simulate the production of injectable products. We will need to purchase products that provide such as the “Mock Drugs” in ampoules, powder vials and “Glo-Products” that are replacement items. The students quickly became competent in scrubbing and gowning to work in the clean room area. All students were successful in using needles, syringes, ampoules, small and large volume parenteral preparations. We observed a brief video on the preparation of total parental nutrition (TPN).

CONCLUSION: Spring session IV & Sterile Product Preparation laboratory class had the students engaged in the production of injectable products. The only possible weak area is the difficulty in simulating preparation of TPN. To correct this area a visit to a large hospital or infusion service pharmacy in Grand Forks or Fargo, North Dakota for technician students to job shadow a fully operation sterile products clean room producing all injectable products and TPN. Hopefully this type of visit could be conducted during the next session of this class spring 2013.

30 April 2012

NARRATIVE OF ASSESSMENT

CLS 245 Clinical Microbiology

The assessment of understanding in Clinical Microbiology was determined to be acceptable by the improvement in scores of the pre and post exams.

The material for Clinical Microbiology was presented in lectures, PowerPoint presentations with the aid of the Promethean system and demonstration. The students were able to demonstrate their knowledge in the use of microscopes and culture media. The course examinations were modeled after the Registry Exams as presented by ASCP (American Society of Clinical Pathologists). These exams will prepare the student for the examination at the completion of their program.

It is very advantageous to the MLT program, Phlebotomy program and the Pharmacy Technician program to have a media center such as the Promethean system; not only for the purpose of instruction, but also, for the reinforcement of the student's knowledge by being able to demonstrate their knowledge to the instructor and the class. I strongly recommended the

purchase and installation of the Promethean system in the Clinical Lab module; along with the training on the system, this addition is most beneficial to the students and staff..

Respectfully submitted:

Wayne C. Olson BSEd., MSM, MT(ASCP)

Medical Laboratory Technician Program Director

Project CHOICE Practicum Coordinator

Clinical Laboratory Instructor

May 8, 2012

FARM Report Narrative

I took a different approach to assessment this semester. I wanted to evaluate my students' critical thinking process. In CLS 105 Clinical Seminar class the first eight weeks is dedicated to preparing students for Clinical Rotations, with emphasis on Point of Care Testing. Therefore, my pretest was based on Point of Care procedural questions that reflected things, that if omitted, could affect results. Then with the posttest I used the same type of question where if in a Clinical setting procedural steps were omitted or not

followed properly. They had to explain what they felt needed to be done to assure the Physician the test results would be accurate. I also reviewed the competency test results for each student that pertained to this subject. These were completed by Affiliate Clinical Instructors where the student was assigned. I found that the competency levels correlated very well with the post test results. However, I have concluded to improve the students critical thinking skills, I need to put more emphasis on “why” a test result will be affected rather than if the procedure is not followed properly.

Respectfully Submitted,

Marilyn Delorme

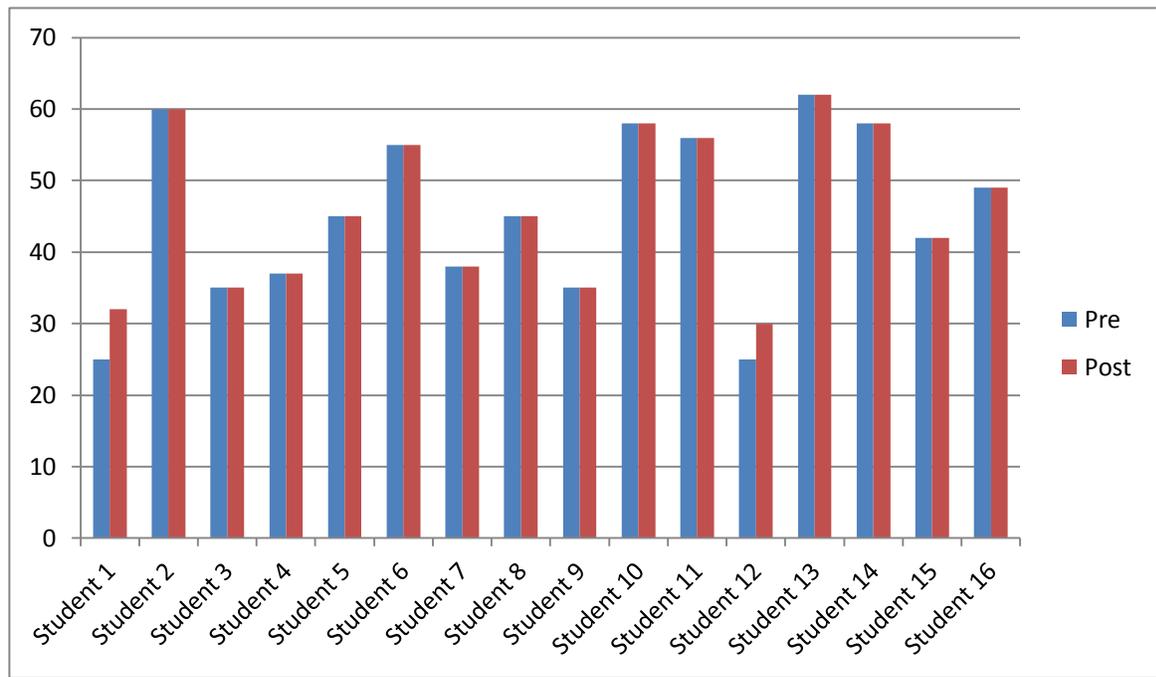
Phlebotomy Program Director/ Instructor

Rhonda Gustafson

Course Assessed: BOTE 102 Keyboarding I

In the spring semester of 2011 the BOTE 102 Basic Keyboarding was assessed with the recommendation of course elimination. To test the data, the course was reassessed for validity. Spring semester 2012 found the same results as in the previous assessment. Eighteen students enrolled, sixteen

students tested-out of the course, and two withdrew. Sixteen students successfully completed the course. Basic Keyboarding is a course required only of Administrative Office Assistants. In the spring semester course only seven of the students were required to enroll in the course and of the seven, five tested out. The additional students were enrolled in associates of arts/science programs and register for keyboarding as a course elective. It is the continued recommendation, based on the pre-assessment results, that the course be considered for elimination.



Note: Students are required to key 35 GWAM to test out of BOTE 102 Basic Keyboarding

Narrative for assessment: Barb Houle

For the first 8 week course of QuickBooks Pro I used the background knowledge survey that came with the text.

There 19 students who signed up for the course 17 of the students completed the course. The other (2) students withdrew from the class before assessment was given. (17) students took the pre-test with (14) who took the post-test. One student did not complete pre or post assessment.

The QuickBooks software was great however, the computers in Room 200 are old and some of the information that was down loaded was not showing up on the screens of the monitors such as icons. This made it difficult for students to follow along with the text when instructed to click on one of these to open up documents.

For Pre-Test and Post-Test:

For question 1 (17) students all knew how to a computer. Post-test all (14) students still knew how to use a computer.

For question 2 (8) students stated they were an expert. Then (4) students

stated they were intermediate level with the remaining (5) students stated they were beginners. For post-test (8) still felt they were experts with the remaining (9) felt they were at intermediate.

For question 3 (9) students stated they owned a computer with the remaining (8) students stating they did not own a computer. Post-test only (1) student answered questioned about now owning a computer the remaining (7) students did not own one.

For question 4 (6) uses a computer at work. The remaining (11) students stated they do not. Post-test this answer did not vary.

For question 5 (14) students have not had experience in working with accounting programs. (2) of the students did have experience using QuickBooks with (1) student not answering question. Post-testing showed that (14) students now had experience in using software.

For question 6 all (17) students answered the question stating they will use QuickBooks in their daily lives and when they start their own business.

Posting testing results showed that (14) students will use software now they are familiar with it.

For question 7 (12) students answered the questions with the remaining

students not responding. Post testing results in (14) students responding to question.

For question 8 (9) students stated the important factor of my success was to complete class with (3) students not responding with the remaining (5) stating they wanted to graduate. Post test showed (14) of students responding to question.

For question (9) there were (10) students who did not respond to question with the other (7) answering in various ways. Post test results of (14) remained the same.

For question 10 & 11 (17) students answered yes to the question and wrote down their email address. Post testing revealed the same results.

For question 12 (17) wrote their name down. Post test revealed all (14) students answered questions.

CTE Fall Semester

CAREER AND TECHNICAL EDUCATION (CTE)

Marilyn Delorme

Career and Technical Education Chair

A total of eleven Faculty Assessment Report Matrix (FARM) reports were received. Three regular Faculty members did not report. One new employee has been added to the Computer Support, and three new Instructors have been added to the Nursing Program. (No reports were received from these Faculty members.) We now have eighteen Instructors in the CTE Department. The EMS department is currently vacant.

In reviewing the reports received (please refer to attachments), it is apparent as the CTE Instructors plan the development of their course material, and how this material will be delivered to the student, that the effort reflects awareness of the standards of assessment that are required by the State of North Dakota's CTE Program and the Assessment Policies of the Turtle Mountain Community College.

The goals and objectives that are put into place at the beginning of the course have a direct relationship to the competencies the CTE students will need to enter into today's work force. The Instructors are aware early on of the diversity of the student population they serve. They also mention the importance of their students having critical thinking skills.

Using the pre- and post-test method of assessment allows them to measure the effectiveness of how the course material is presented, be it by lecture, audio visual or hands on demonstration. Most Instructors are using a combination of these delivery methods. The average percentage of improvement between pre- and post- testing appears to be approximately eighty five percent.

In their conclusion statements, the instructors have identified not only changes they may need to make in the course material, but also tools that can be used to the advantage of the students: placing the students in teams to present chapter material, explaining a carpentry or electrical math problem or demonstrating a particular technique. Another tool is using students within the program as tutors for the other students that may be having difficulty. Students sometimes learn better from other students than from an instructor. Another important factor that has resulted from the assessment of some courses is the possibility of curriculum changes for a particular course that could benefit the students.

Institutional changes that have been made are for the most part all the same. The instructors have expressed a need for more and updated materials, a need for students to each have individual tools or blueprints too work with. Requests for Audiovisual material and software were mentioned in most all

reports.

In summary, as Career and Technical Chair, it is my opinion that we have very conscientious and dedicated instructors in The CTE Department. I believe they are aware of the importance of Assessment. Some have asked if they could have more training on using the actual Farm reporting form as well as, how to figure rubrics. In the future the possibility of taking the information from the FARM report and submitting a final narrative report could be considered as an option. I believe we need to pay close attention to requests of Instructors for Professional Development and the need for updated materials. These two factors can have a direct effect on assessment results. Also, there needs to be more than one CTE Chair to effectually serve the Instructors.

The State of North Dakota Department of Career and Technical Education completed a review of all Turtle Mountain CTE Departments in January of 2012. I am sure a copy of the report could be furnished on request. Also in March 2012, the Allied Health Programs will again be reviewed as per Project Choice. The Pharmacy Program will have an accreditation visit in Sept. 2012.

**CAREER AND TECHNICAL EDUCATION ASSESSMENT
REPORT**

ATTACHMENTS

- **PROGRAM:**

Construction Technology (2 Faculty members)

INSTRUCTOR:

Luke Baker

COURSE ASSESSED:

BCT 144A Construction Estimating I

GOAL:

Students will develop math skills using fractions and converting decimals as needed on the job.

OBJECTIVE:

Students will be able to make material estimates off blue prints

PRE and POST ASSESSEMNT:

Pre-test Aug. 10 students ave. score 42% Post-test Dec. 9 students avg. score

88%

CONCLUSION:

More assessing of student diversity to include one- on- one instruction using student teams in classroom setting.

Recommended Institutional Change:

Acquire funding to allow purchase of enough blue prints for each student.

INSTRUCTOR:

Ron Parisien

COURSE ASSESSED:

BCT 110 Construction Math

GOAL:

Student will apply problem solving as related to problems encountered in the carpentry field.

OBJECTIVE:

Students will use knowledge gained in problem solving with technology support of computers and calculators.

PRE and POST ASSESSEMNT:

Pretest 80 questions Aug. 9 students Post-test Dec. 9 students

19.6% mean score increase.

CONCLUSION:

Incorporate more audio visual aids. Use carpentry students for Math tutoring.

RECOMMENDED INSTITUTIONAL CHANGE:

Need audiovisual material to teach a more comprehensive use of fractions and their role in carpentry functions.

- .PROGRAM: (2 Faculty members)
Computer Support specialist

INSTRUCTOR:

Rhonda Gustafson

COURSE ASSESSED:

BOTE 102 Keyboarding

GOAL:

Allow students with little or no keyboarding skills to become proficient in all fundamentals of keyboarding.

OBJECTIVE:

Two fold (1.) Give students opportunity to test out of the course with 40 gross words per minute or less errors tested with in 1st two weeks of semester. (2.) Continue instruction for students to achieve the fundamentals for acquired accuracy and speed.

PRE and POST ASSESSEMNT:

Pretest 22 students 17 students tested out of course as per course description

20 students completed the requirements for this course.

CONCLUSION:

Instructor has the opinion that this course no longer be offered. Modify

BOTE 152

Keyboarding II to accommodate students with basic keyboarding skills but time to

improve speed and accuracy as well as accomplish material in BOT152.

RECOMMENDED INSTITUTIONAL CHANGE:

Make adjustment to curriculum and enter catalog change

INSTRUCTOR:

Marlin Allery (new employee)

No report

- .PROGRAM:

Early Childhood/Para professional

INSTRUCTOR:

Renee Barking

COURSE ASSESSED:

No report

- PROGRAM:

Electrical Technology

INSTRUCTOR:

Wayne Sande

COURSE ASSESSED:

ELEC 101 Orientation & safety to Electrical Trade

GOAL:

Critical thinking – Introduction into the world of electricity

OBJECTIVE:

Students will have the knowledge and respect for electricity starting from
the

basics to complete wiring of a home.

. PRE and POST ASSESSEMNT:

Pretest Aug. 78% to Posttest Dec 98%

CONCLUSION:

Shop time was very productive. Students were able to apply theory to actual work areas.

RECOMMENDED INSTITUTIONAL CHANGE:

More audio visual material needed and more actual job site experiences

- PROGRAM:

Emergency Medical Technician

INSTRUCTOR:

Currently Vacant.

- PROGRAM:

Entrepreneurship/small business management

INSTRUCTOR:

Barb Houle

COURSE ASSESSED:

BADM 201A Principles of Marketing

GOAL:

Student will acquire successful marketing concepts based on customer's wants and needs.

OBJECTIVE:

Provide awareness of the effects that ethnical implications, global economy and

Supply and demand can have on marketing.

PRE and POST ASSESSEMNT:

Pretest Sept. 23 students Nov. 17 students

74% improvement in test scores.

CONCLUSION:

Students need more emphasis on individual interpretation of definitions, terminology as related to marketing. Cultural diversity did not seem to present a problem. Critical thinking is lacking.

RECOMMENDED INSTITUTIONAL CHANGE:

Purchase Marketing software to assist students with business plans.

- PROGRAM:

Health Information Management

INSTRUCTOR:

Joan Azure (adjunct)

COURSE ASSESSED:

No report

- PROGRAM:

Health and Wellness

INSTRUCTOR:

Brien LaRocque

COURSE ASSESSED:

Nutrition 240

GOAL:

Provide students with knowledge to understand basic nutrition for infancy to geriatrics.

OBJECTIVE:

Recognize the relationship between food intake and nutrition and individual

behavior health.

PRE and POST ASSESSEMNT:

Pretest Aug. 20 students 0% Post-test Dec. 20 students 18 had 100%
and

2 had 95%

CONCLUSION:

Class attendance played a major role in student success. Through service learning, students were able to express capability and confidence.

RECOMMENDED INSTITUTIONAL CHANGE:

Availability of new and updated material, possibly through professional development.

- **PROGRAM:**

Heating and Ventilation, Air Conditioning (HVAC)

INSTRUCTOR:

Todd Poitra

COURSE ASSESSED:

HVAC 107 Indoor Air Quality

GOAL:

Students will gain knowledge of comprehensive indoor air quality

OBJECTIVE:

Students will gain knowledge of how air properties, contaminants, and filtration affect air quality using testing, adjusting and balancing equipment.

PRE and POST ASSESSEMNT:

Pretesting Aug. 36.8% Post-test Dec. 96.7 % 5 students

CONCLUSION:

Student interaction in classroom using chapter review and discussion made a good delivery tool for chapter lecture material. Using student teams in application of material seem to improve student confidence.

RECOMMENDED INSTITUTIONAL CHANGE:

Access to new methodology

- **PROGRAM:**

Medical Laboratory Technician

INSTRUCTOR:

Wayne Olson

COURSE ASSESSED:

CLS 115 Urinalysis and body fluids

GOAL:

Provide students with an understanding of clinical urinalysis including chemical reactions and composition of urine and body fluids.

OBJECTIVE:

Students will have knowledge to interpret chemical reactions and composition of urine and body fluids as related to specific diseases.

PRE and POST ASSESSEMNT:

7 students tested 20 question test Pretest 45% posttest 89%

CONCLUSION:

Method of lecture using PowerPoint and demonstration proved to be effective. Use on instrumentation and microscopes greatly enhance to competency level of the students.

RECOMMENDED INSTITUTIONAL CHANGE:

(1) Purchase more material for a media center. (2) Installation of a Prometheus system.

- PROGRAM:

Nursing

INSTRUCTOR:

Joann Blue (Program Director) reporting

Gloria Belgarde (new instructor no report)

Aleta Delorme (new Instructor no report)

COURSE ASSESSED:

Nursing 101 Basic Nursing Theory

GOAL:

Students will practice and apply general principles , concepts and skills of basic fundamental nursing.

OBJECTIVE:

Explain and discuss standards of care, Federal regulations, nursing plans, normal and abnormal values, as well as appropriate interventions of disease types.

PRE and POST ASSESSEMNT:

Used the PN content Mastery Series(CMS) and the 2008 National Standards Setting study of Advanced Technical Institute (ATI)

Pre Test May 7 students all below level one Sept 4 students still at a level one and 3 students had advanced to the level 2.

CONCLUSION:

Need to assess delivery of material and student's test taking abilities and fears.

RECOMMENDED INSTITUTIONAL CHANGE:

Add policy to have students sign contracts with the Instructors make the students aware of the importance of (ATI) testing.

- **PROGRAM:**

Pharmacy Technician

INSTRUCTOR:

James Mitchell

COURSE ASSESSED:

PHARM 101 Orientation to Pharmacy Practice

GOAL: Critical thinking

OBJECTIVE:

Introduce students to the role of a Pharmacy technical in various settings.

Discuss laws governing pharmacy, medical dosages and applications.

PRE and POST ASSESSEMNT:

Pretest Aug 40% Posttest Sept 53% 13% improvement

CONCLUSION: Possibly change this course to meet one class per week for eight weeks. There is a need for more classroom demonstration. At least one lecture on traditional medicine and healing should be provided.

RECOMMENDED INSTITUTIONAL CHANGE:

None

- .PROGRAM:

Phlebotomy

INSTRUCTOR:

Marilyn Delorme

COURSE ASSESSED:

CLS 103 Phlebotomy

GOAL:

Provide students understanding of basic laboratory safety, regulatory agencies, medical facility organization, policies and procedures as related to various blood draws.

OBJECTIVE:

Upon completion of the course students will have acquired knowledge of drawing, handling and in some cases analyzing specimens with

competencies allowing them to proceed into a clinical training rotation.

PRE and POST ASSESSEMNT:

Pre test 25 written questions 30 point competency test. Results pre written
25% Post written 98% Pre comp 10% Post comp 98%

CONCLUSION:

Lecture material presented was adequate to provide a good knowledge base.

Although the competency evaluations were acceptable, I believe more
hands- on time is needed.

RECOMMENDED INSTITUTIONAL CHANGE:

We have a need for additional up to date reference material to keep abreast
of new methodologies and regulations.

- **.PROGRAM:**

Process Plant Technology

This program works off a collaborate agreement with Bismarck state
College

INSTRUCTOR:

Keith Brien

No report

- . PROGRAM:

Welding Technology

INSTRUCTOR:

Carl Eller

COURSE ASSESSED:

WELD 164A Blue Print Symbols

GOAL:

Provide student with knowledge to read blue print drawing without oral instruction.

OBJECTIVE:

Students will have the ability to read-draw and communicate using welding symbols as a common language for designers, estimators, inspectors and other welders.

PRE and POST ASSESSEMNT:

85% improvement between pre and post testing dates.

CONCLUSION:

This course requires less bookwork and more hands- on instruction to reach competency.

RECOMMENDED INSTITUTIONAL CHANGE:

Consider the possibility of the welding program being developed into a

two year

program rather than a certificate program.

Coordinator's Closing Statement

Someone once said that nothing is as bad as you think, nor as good as you hope for. This report attempts to represent the assessment efforts of faculty for the year 2011–2012. It was our first attempt to assess a program through assessment at the class level and by department. In retrospect, it would appear that planning meetings, perhaps with departments, prior to our attempt to assess the Associate of Science degree program next year would be a good idea. We recognize the high correlation between the learning outcomes of General Education, Associate of Arts, and Associate of Science, but at the same time, we see value in offering the A.A. and the A.S., knowing that both share the common foundation of the General Education program. We see it as a matter of looking through the lens of an Associate of Arts program and envisioning what we hope our graduates will know and what skills they will possess as they leave the institution. Likewise, we share that same objective in attempting to assess the Associate of Science. At some point, the faculty will revisit the General Education program and review its

curriculum and learning outcomes. This will be after the review of the Associate of Science, recognizing that any major changes in General Education will impact both of the two-year degrees. That review will more than likely take place during the 2013–2014 school year.

As coordinator of assessment, my objective is to gradually bring all full-time faculty to a point where they see assessment as a proven means to improve the teaching that they do and to improve the quality of learning for students. We are not quite there yet, but we are making progress.

Andy Johnson, Coordinator

May 22, 2012

