# 2017-18 BUSINESS AND TECHNOLOGY DIVISION ASSESSMENT REPORT

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Mid-Plains Community College Assessment Report: Narrative Summary

Academic Year: 2017-18

#### **Program: Associate of Applied Science in Business Division: Business and Technology**

#### Assessment Methods & Procedures

Primary assessment methods include:

- Internship Evaluation completed by the intern's supervisor
- Employer Survey and Graduate Survey data specific to business students
- Capstone Courses and Assignments
  - Marketing Project
  - Management Case Study
  - Integrated Information Processing Final Project
  - Accounting/Bookkeeping Final Review Problem

#### **Conclusions, Recommendations, and Changes Made**

#### **Changes Made**

- In 2017-18, faculty moved away from using 3<sup>rd</sup> party assessment tools, such as OPAC and WorkKeys. In their place, business specific data from the graduate and employer surveys are being used in addition to data from the internship evaluation form.
- Program objectives listed on the matrix now match the outcomes listed in college catalog.

#### Recommendations

• In 2018-19, division faculty will consider, evaluate, and implement possible third party assessment tools to aid in consistency across locations. An example would be potentially using the MOS certifications to measure computer application skills.

Program Objective	Link to College SLO's	Measure & Methodology	Expected Results	Expectation Met (Y or N)	Analysis	Action
Perform tasks related to entry level employment in a business setting.	3, 10, 13	Internship Evaluation - Ability to apply business concepts Line 15	Expectation: 3.5 on a scale of 1- 5. Result: 4.38	Y	Expectations were surpassed. Program exposes students to a variety of business related career fields developing their business vocabulary, procedures, ethics and professionalism.	Based on the analysis of our results, we will continue with our current curriculum. Students are receiving relevant business knowledge.
Demonstrate an understanding of personal and work characteristics that contribute to effective job performance.		B. Internship evaluation - Uses time wisely- line 4	A. Expectation: 3.5 on a 5 point scale Result: 4.29 B. Expectation: 3.5 on a 5 point scale Result: 4.09	Y	Expectations were met. Various courses in the program expose students to the traits deemed necessary for being an effective employee. Discussions with our advisory board, surveys, professional development research, and information acquired at conferences help us determine the necessary traits.	Based on the results, we will continue with our current curriculum. We will also continue to seek advice from our advisory boards and professional development associations as to what is needed for effective job performance in the industry.
Use effective communication skills appropriate to the business field	3, 4 , 11	A. Internship Evaluation - Demonstrates effective istenting skills- Line 3 B. Employer Survey - Oral communication (with supervisors, peers, clients, or subordinates) C. Business Communications Written Analytical Report	A.Expectation: 4 on a 5 point scale Result: 4.02 B. Expectation: 4 on a 5-point scale Result: 4.07 C. Expectation: 75% on a 100% scale Result: 81%	Y	Expectation were met. Program requires students to communicate using different mediums. We continue to implement a variety of activities and lessons to develop these skills.	Based on the results we will continue to implement, expand and explore the use of a variety of communication mediums. Program curriculum should include formal and informal communication modes. These could be achieved using new technology and traditional methods of communication.
Apply the theory of technical specialization to entry level employment in a business setting.		B. Management case study C. Integrated Information Processing	A. Expectation: 75 on a scale of 100 Result: 77.47 B. Expectation: 75 on scale of 100 Result: 83 C. Expectation: 75 on a scale of 100 Result: 83 75 on scale of 100- 83.3	Y	Expectations were met. Program requires students to apply course concepts by summarizing in a final project (capstone).	Based on the analysis of our results we will continue with our current curriculum. Students are receiving business knowledge relevant to their area of specialty that allows them to gain entry level employment in the field.

Program Objective	Link to	Measure & Methodology	Expected Results	Expectation	Analysis	Action
	College			Met		
	SLO's			(Y or N)		
Use mathematical data and reasoning skills in relation to entry level employment in a business setting.		final review problem B: Business Math & Calculators post test C. Employer survey - Mathmatical skills	A. Expectation: 75% on a scale of 100% Result: 83.3% B. Expectation: 75% on a scale of 100% Result: 81.57% C. Expectation: 3.5 on a 5 point scale Result: 4.18	Y	requires math components in an	Based on the analysis of our results, we will continue with our current curriculum that emphasizes math and reasoning skills.
Opportunities, Challenges, a	nd Special	Requests				



Mid-Plains Community College Assessment Report: Narrative Summary

> Academic Year: 2017-18

Program: Business and Office Technology Division: Business and Technology

#### 2017-18 Assessment Data

See assessment matrix

#### Assessment Methods & Procedures

Primary assessment methods:

- Graduate Survey
- Graduate Employer Survey
- OPAC (Office Proficiency Assessment Competency)
- Integrated Projects for capstone courses
- MOS (Microsoft Office Specialist Certification)

#### **Conclusions, Recommendations, and Changes Made**

#### Recommendations

- Integrate OPAC testing in related coursework for more accurate testing measurements.
- Check with OPAC to see if they offer an online test for students in online courses who cannot come to campus.
- Investigate new OPAC testing available that the department may want to incorporate into the assessment matrix.
- Purchase GMETRIX software to prepare for MOS certification exams. Incorporate MOS Access testing in OFFT 2170.
- Encourage presentation component in all courses.
- Integrate written projects in all courses.
- Work with Research Specialists to determine alternative measurements. Investigate NOCTI assessment "Workplace Readiness." Follow up on alternative measuring instrument.

Program Objective	Measure &	Link to College	Expected Results	Expectation Met	Analysis	Action
	Methodology	SLO's		Y/N		
<ol> <li>Acquire entry-level skills for employment in an office environment in one of the emphasis areas.</li> </ol>	Graduate Employer survey Overall measure of employability	C-7, C-8, C-9	Expectation: Average of 80% response in the good to very good range.	Y	Exceeded expectation	Continue to send reminders to employers for continued participation. Investigate reasons for nonresponding employers.
			Result: 4.29 on 5.0 scale or			
	Graduate Survey: Solve problems		85.8% Expectation: 3.0 on a 5.0 scale Result: 4.33 on a 5.0 scale	Y	Exceeded expectations.	Continue to integrate problem- solving activities.
	Student Survey: Think critically and analytically		Expectation: 3.0 on a 5.0 scale Result: 4.67 on a 5.0 scale	Y	Exceeded expectations.	Continue to integrate project- based learning activities.
	OPAC (Office Proficiency		Expectation: Average of 80%			
Legal	Assessment Competency) Legal Professional Test Group		on 100% scale.	NA	No legal graduates.	Aggressively market program.
Medical	OPAC (Office Proficiency Assessment Competency) Medical Professional Test Group (administer at the end of OFFT 2530 Med Transcription)	C-1, C-2, C-7, C-8, C-9	Expectation: Ave. of 80% on 100% scale. Result: Medical Tern OPAC: 78.68% Med. Term 1L Comp: 74% Medical Trans. none given.		Expectations not met for Medical Terminology. OPAC Transcription component was not administered.	Comprehensive Final Exam is used for online classes. OPAC is used for oncampus clases. Provide review and drill practices. Determine ways to test following course completion. Communicate with instructors to schedule OPAC.
	OPAC (Office Proficiency	C-1, C-2, C-8,	Expectation: Average of 80% on a 100% scale.			
	Assessment Competency) Editing/Formatting	C-9	un a 100 /0 Scale.			
			<b>Result:</b> Proofreading: 65% Transcription: 97%	Ν		
Administrative Assistant				IN	Proofreading: Expectations not met . Transcription: Exceeded expectations. Numeric Filing: No results. Alpha Filing: No results	Integrate the numeric and alpha filing assessments into the Records Management Course. Investigate new OPAC testing. Check for an online OPAC test to assess more

2017-18 Associate	of Applied Science ir	n Business Office Te	echnology			
Program Objective	Measure & Methodology	Link to College SLO's	Expected Results	Expectation Met Y/N	Analysis	Action
			Numeric Filing: Not administered	NA		
			Alpha Filing: Not administered.	NA		
<ol> <li>Operate modern computer equipment utilizing various software application packages.</li> </ol>	Final Integrated Project in BSAD 2510 Business Computer Systems or OFFT 2150 Integrated Information	C-1, C-2, C-3,	<b>Expectation:</b> Average grade on the projects will be 80% on a scale of 100%.	Y	Exceeded Expectation.	Continue to incorporate work- place, real-world projects
	Processing	C-7, C-8, C-9	Result: 83%			
	Final Integrated Project in CSCE 2570 Desktop Publishing	C-1, C-2, C-3,	<b>Expectation:</b> Average grade on the projects will be 80% on a scale of 100%.	Y	Expectation met.	Continue to offer updated Desktop Publishing software
		C-7, C-8, C-9	Result: 80%			
	Employer Survey measure of technical skills	C-1, C-2, C-3,	<b>Expectation:</b> Response will show at least an 80% good to very good response.	Y	Exceeded expectations.	Continue to encourage all students to become proficient in technical skills.
		C-7, C-8, C-9	<b>Result:</b> 4.16 on a 5.0 scale or 83.2%			
	Employer Survey measure of computer literacy and	C-1, C-2, C-3,	<b>Expectation:</b> Response will show at least an 80% good to very good response.	Y	Exceeded expectations.	Continue to encourage all students to become proficient
	proficiency	C-7, C-8, C-9	Result 4.35 on a 5.0 scale or			in technical skills.
	MOS Word, Excel, and Access Assessments in BSAD 2510, OFFT 2150 and	C-1, C-2, C-3, C-7, C-8, C-9	87% Expectation: The average overall score on MOS will be 70%. Results: MOS Word = 68%	Ν	Word: Expectations not Met Excel: Expectations not met	Continue MOS certification testing. Purchase GMETRIX software to prepare for MOS certification exams. Incorporate MOS Access testing in OFFT 2170
	OFFT 2170		MOS Excel = 65% MOS Access = No tests administered			
	Graduate Survey: Use effective oral communication	C-1, C-2, C-3,	Expectation: 3.0 on a 5.0 scale			
<ol> <li>Demonstrate effective communication skills.</li> </ol>		C-7, C-8, C-9	Oral Result: 4.50	Y	Exceeded expectations.	Encourage presentation componet in all courses.

2017-18 Associate	of Applied Science in	Business Office Te	chnology			
Program Objective	Measure & Methodology	Link to College SLO's	Expected Results	Expectation Met Y/N	Analysis	Action
	Employer Survey measure oral communication skills		Expectation: Response will show at least an 80% good to very good response. Result: 4.02 on a 5.0 scale or	Y	Exceeded expectations.	Continue to encourage all students to become proficient in oral communication.
			80.4%			
	Student Survey:		Expectation: 3.0 on a 5.0 scale			
	Use effective written communication		Written Result: 4.50	Y	Exceeded expectations.	Integrate written projects in all courses.
	Analytical Report in Bus. Communications: Business Writing measure written communication skills		Expectation: Average grade on Analytical Report, 80% on a 100% scale Results: 79%	N	Expectations not met.	Encourage students with special accommodations to utilize the Writing Lab and the Learning Resource Center. Ensure prerequisites are in place for enrollment into this course.
4. Demonstrate appropriate human relations skills.	Employer Survey—Interacts effectively with others in diverse environments		Expectation: Response will show an 80% good to very good response. Results: 4.12 on 5.0 scale or 82.4%	Y	Exceeded expectations.	Work with Research Specialists to determine alternative measurements. Investigate NOCTI assessment "Workplace Readiness"Follow up on alternative measuring instrument.
	Employer Survey – Measure Personal Ethics (Being responsible to others).		Expectation: Response will show an 80% good to very good response.	Y	Exceeded expectations.	Work with Research Specialists to determine alternative measurements. Investigate NOCTI assessment "Workplace Readiness." Follow up on alternative measuring instrument.
	Student Survey: Work with others		Expectation: 4 on a 5 scale Result: 4.4 on a 5.0 scale	Y	Exceeded expectations.	Encourage team-based projects.
	Student Survey: Understand other culturees		Expectation: 4 on a 5 scale Result: 4.33 on a 5.0 scale	Y	Exceeded expectations.	Encourage interaction among the diverse student body.

Program Objective	Measure & Methodology	Link to College SLO's	Expected Results	Expectation Met Y/N	Analysis	Action	
5. Demonstrate an understanding of mathematical		C-5, C-7, C-8,	<b>Expectation:</b> Overall average score will be 75%.	v	Exceeded expectations.	Incorporate more math problems solving activities and raise expectations.	
reasoning and principles in relation to entry-level employment.	Business Math Post Test	C-9	Result: 81.57%	Y			
	Graduate Employer Survey measure Mathematical Skills	C-5, C-7, C-8,	Expectation: 3.5 on a 5 scale	Y	Exceeded expectations.	Continue to encourage all students to become proficient	
		C-9	<b>Result:</b> 4.18 on as 5.0 scale or 83.6%.			in business math.	
	Graduate Survey: Use math skills to solve practical and/or theoretical problems	C-5, C-7, C-8,	Expectation: 3.5 on a 5 scale	Y	Exceeded expectations.	Embed real-world scenarios in class activities	
		C-9	<b>Result:</b> 4.5 on as 5.0 scale or 90%.				

College Student Learning Outcomes:

C-1: Effective use of written communications skills

C-2: Effective use of oral communication skills

C-3: Efficient use of information retrieval skills

C-4: An understanding of the values and traditions of other cultures in the world

C-5: Mathematical computational skills to solve problems

C-6: Human inquiry skills by scientifically observing, explaining, predicting and testing for the purpose of understanding

C-7: Critical thinking skills

C-8: Appropriate and necessary competencies/skills for academic transfer or employment in their area of expertise

C-9: Effective decision making skills



Mid-Plains Community College Assessment Report: Narrative Summary

Academic Year: 2017-18

#### Program: Graphic Design and Visual Communications (GDVC) Division: Business and Technology

#### Assessment Methods & Procedures

GDVC program objectives are assessed using direct and indirect measures. The following is a short description of how to interpret each measure.

- Internship evaluation: Evaluation is done by the employee's supervisor twice during the Internship program once midway through the internship and once at the end. Scale of measurement is from 1-10 with 10 being the highest level. Target areas are (1) visual problem solving with appropriate software (2) ability to apply business concepts and principles.
- **Portfolio:** The portfolio class is a capstone course where students gather projects that they have completed in the Graphic Design program and evaluate them, do revisions, and create additional projects in areas where they are weak. Then they create a hard copy, a multimedia and a web portfolio to use when applying for a job after graduation. In addition to this they create an identity package that includes a business card, letterhead, resume, and a portfolio brochure. They learn how to present their work to the public by setting up a student show. A rubric is used for assessment and the average student score should be 80 points or above out of a maximum of 100 in each of the above areas.
- **Marketing:** A comprehensive marketing plan is completed in the Principles of Marketing course. They work with a business, and develop a financial analysis including trends, current marketing strategies, and then develop a plan to use marketing dollars more successfully.

#### Conclusions, Recommendations, and Changes Made

- Continue instructing with program objectives always monitoring changes in software and industry trends and student understanding and adjusting accordingly.
- Adobe and C4d software updated so students will be familiar with the most current versions of the software being used in the design community.
- Continue to push the importance of the hard copy portfolio earlier in the semester and more frequently.



# **<u>Area/Department:</u>** Graphic Design/Visual Communications

Date Submitted: 2017-18

	Outcome	Link to College SLO's	Measure & Methodology (who, what, when & why)	Expected Results/Standards (What students should have learned)	Expectation Met (Y or N)	Analysis	Action
1	Perform tasks related to entry level employment in the graphic design industry	1,2,3,7, 8,9	Internship Evaluation - produces quality design work according to assigned objectives	Expectations: 7 on a scale of 1-10 Results: 9.3	Y	Continue instructing with program objectives always monitoring changes in software and industry trends and student understanding and adjusting accordingly.	Adobe and C4d software updated so students will be familiar with the most current versions of the software being used in the design community.
	1a. Print Media Design	1,2,3,7, 8,9	Print media projects (presented in student portfolio show)	Expectations: 80% on a scale of 100% Results: 88%	Y	See #1	See #1
	1b. Multimedia Design	1,2,3,7, 8,9	Video and animation Final projects	Expectations: 80% on a scale of 100% Results: 81%	Y	See #1	See #1
2	Demonstrate skill in visual problem solving	1,2,3,7, 8,9	Internship Evaluation - ability to apply design concepts and principles	Expectations: 7 on a scale of 1-10 Results: 8.8	Y	See #1	See #1
		1,2,3,7, 8,9	Student Show - development of theme and creative skills	Expectations: 80% on a scale of 100% Results: 89%	Y	See #1	See #1
3	Use effective communication skills necessary for a career in graphic design	1	Internship Evaluation measure written communication skills	Expectations: 7 on a scale of 1-10 Results: 8.5	Y	See #1	See #1
4	Determine and use appropriate software for given visual problem-solving situations		Interactive Portfolio - use software as necessary to bring projects from diverse applications together	Expectations: 80% on a scale of 100% Results: 85%	Y	See #1	See #1
		3,7,8,9	Internship Evaluation - demonstrates knowledgeable use of	Expectations: 7 on a scale of 1-10 Results: 9.1	Y	See #1	See #1



		1270	appropriate software for visual problem-solving tasks	Evenetations: 90% on a scale		See #1	Sec #1
		1,3,7,8, 9	Student ID package including portfolio brochure	Expectations: 80% on a scale of 100% Results: 85%	Y	566 #1	See #1
5	Apply business fundamentals learned to employment in a graphic design setting	1,3,7,8, 9	Internship Evaluation - applies business concepts and principles to work environment	Expectations: 7 on a scale of 1-10 Results: 8.7	Y	See #1	See #1
	5a. Marketing Skills	1,3,7,8, 9	Marketing Plan	Expectations: 80% on a scale of 100% Results: 80%	Y		
6	Develop a print, and digital portfolio to be used in finding entry- level employment in the field	3,7,8,9	Portfolio: Organizational ability, creativity and presentation skills	Expectations: 80% on a scale of 100% Results: 85%	Y		Continue to push the importance of the hard copy portfolio earlier in the semester and more frequently.



Mid-Plains Community College Assessment Report: Narrative Summary

> Academic Year: 2017-18

Program: Information Technology Division: Business and Technology

#### **Introduction**

In 2017-18, Information Technology faculty transformed his program assessment processes. Specifically:

- Program objectives listed in the current catalog were used as the cornerstone of the program matrix. Program courses were linked to the program objectives to create the program matrix
- Instead of relying on third party certification tests such as Net+ and A+ as the primary measurements, course assessment results and internship data were used as the primary measurements.

#### 2017-18 Assessment Data

• See assessment matrix

#### **Assessment Methods**

- Course results
- Employer evaluation of Information Technology interns

#### Conclusions, Recommendations, and Changes Made

• See assessment matrix

<b>Program Objective #1</b> Possess the knowledge to preform tasks related to entry level information technology positions.	<b>Program Objective #2</b> Apply the theory of information technology to specific jobs.	<b>Program Objective #3</b> Think analytically and logically in relation to information technology.	<b>Program Objective #4</b> Use effective communication skills and work ethics appropriate to an information technology workplace environment.
Courses:	Courses:	Courses:	Courses:
INFO 1000 Intro to Information Technology	INFO 1010 Microcomputer Applications	INFO 1260 Security +	INFO 1260 Customer Support/Helpdesk
INFO 1025 Operating Systems I	INFO 2025 Operating Systems II	INFO 1030 Database Concepts & Design	INFO 2700 Administrating Directory Services
INFO 1050 Networking Essentials	INFO 1620 Network Administration I	INFO 2600 Network Administration II	INFO 2900 Internship
INFO 1200 Fund of Computer Hardware	INFO 1220 PC Troubleshooting/Repair	INFO 2990 Intro to Programming **Elective	INOF 1060 Linux I ** Elective
			INFO 1410 JAVA Programming <b>** Elective</b> INFO 2990 Intro to Programming (Python) <b>**Elective</b>
<b>Expectation: 25%:</b> Students are beginning the start of their information technology (IT) study and may or may not have any IT knowledge and some interaction with computer related tasks. Upon completion of Objective #1, students are able to perform computer related tasks at a minimum.	of the degree program and are able to apply	<b>Expectation: 75%:</b> Students are above average and can deploy the knowledge and skills from lab works. Students are able to analyze logically in solving everyday business problems. Upon completion of Objective #3, students have the knowledge of what it takes to function as an IT technician on the job.	<b>Expectation: 100%:</b> Students have the knowledg and skills after 2 years of study or at the completion of Objective #4 in transforming their life into an IT technician and/or transfer to a 4 yea degree program. Students also have the ability to sit and pass CompTIA certificate exams. Students have the know how of finding IT related jobs.
Actual Result: Students begin to understand the basic of information technology and how it affects everyday life. Interaction with computers and basic troubleshooting and networking.	Actual Result: Students start to apply theories of information technology through the understanding of lab works. More in dept. understanding of troubleshooting and computer network.	Actual Result: Students have better understanding of Information technology through theories and practical experiences, and are able to apply skills learned in the classroom to activities outside of the classroom. Knowledgeable in computer network, server installation, security, and configuration.	Actual Result: Students have the knowledge and skills, and are ready to go to work after 2 years with an Associate Degree in Applied Science with emphasis in PC Support/Network Technology. Students are able to study and pass CompTIA certificate exams for work. Students have the foundation to apply their knowledge and skill, and enroll into a 4 year degree program easily.
Did students achieve 25%: Yes	Did students achieve 50%: Yes	Did students achieve 75%: Yes	Did students achieve 100%: Yes

Intern evaluation expected score: 4.5/5



Mid-Plains Community College Assessment Report: Program Assessment

Academic Year: 2017-18

#### Program: Early Childhood Education Division: Humanities and Social Sciences

Program Objective 1: Pro	moting Child De	evelopment an	d Learning	
	Measure	Expectation	Results	Action
Knowing and understanding young children's characteristics and needs from birth through age 8.	Test average from Infant, Toddler, Child and appropriate tests from Human Development	75%	84%	Continue focusing on development in all courses.
Program Objective 2: Bui				
	Measure	Expectation	Results	Action
2c: Involving families and communities I young children's development and learning	Essay question responses in all courses	3/5 average	2.5-5	Improvements have been made, but overall, scores are not where we want them to be. Continue to work with students to write well throughout essay questions. Add Family and Community Relationships class to curriculum that is part of the Nebraska Transfer Initiative.
Program Objective 5: Usi	ng Developmen	tally Effective	Approache	S
	Measure	Expectation	Results	Action
Use a broad repertoire of developmentally appropriate teaching/learning approaches	Activity grades in lab and curriculum classes	80%	82%	Continue with expectation and current strategies.
Program Objective 6: Bee				
	Measure	Expectation	Results	Action
Engaging in informed advocacy for you ng children and the early childhood profession	Advocacy project in Introduction to Early Childhood Education	70%	75%	Though the average does exceed our original goal of 70%, continued work on supporting students to become advocates is necessary. Broadening this goal to include professional behaviors is our next step.



Mid-Plains Community College Assessment Report: Narrative Summary

Academic Year: 2017-18

Course: ENGL 1010 English Composition I Division: Humanities and Social Sciences

#### Introduction

In the Fall of 2008, English faculty initiated a research essay assessment project for all sections of ENGL 1010 English Composition I. All ENGL 1010 faculty select, depending on class size, a representative group of students and evaluate the essay using a departmental approved 32-point rubric. In 2013, a narrative component was added to give faculty the opportunity provide feedback about how they improve learning in response to assessment practices.

### 2017-18 Assessment Data

#### **Assessment Methods & Procedures**

#### **Research Essay and Rubric**

Each faculty member will identify a representative sample group of students:

- Faculty who teach multiple sections select the largest section as their representative group
- Faculty who teach multiple sections with fewer than 15 students randomly select students from each section until 15 students have been identified
- Faculty who teach fewer than 15 students total in all sections use all students as their sample group
- Essays are evaluated by instructors based on a departmental approved rubric. Along with a summary sheet of tabulated scores, the essays and corresponding rubrics are returned to the ENGL 1010 project coordinator.

#### **Results/Outcomes**

#### **Research Essay**

In the Fall of 2017, 90.8 % of students achieved a score of 16 or higher on the essay. For the past 6 years, ENGL 1010 students exceeded the 75% benchmark set by English faculty.

ENGL 1010	
Fall 2017 Research Essay and Rubric Result	S
Total number of scored essays	229
Total number of essays scored > 16	208
points:	
Percentage of essays scored > 16 points	90.8%
Total number of essays scored< 16 points:	21
Percentage of essays scored < 16 points	9.2%
Number of faculty who did not participate	0

**Note:** 16 point benchmark on a 32-point score system is somewhat analogous to a 4.0 scale, where the benchmark for satisfactory work would be 2.0. It is <u>not</u> analogous to a 50% on a percentile grading scheme



ENGL 10	ENGL 1010				
2011-2017 Research Essay Comparison					
Year	Results				
2017	90.8% scored at least 16 points				
2016	96.4% scored at least 16 points				
2015	93.6.% scored at least 16 points				
2014	86.8% scored at least 16 points				
2013	90.1% scored at least 16 points				
2012	87.1% scored at least 16 points				

#### ENGL 1010 Narrative Feedback

#### Directions

Narrative data should consist of one paragraph that includes the following four components:

- 1. Identify a time when you assessed learning in the past year. This can be a formal assessment, such as a rubric or a quiz, or it can be an informal assessment, such as asking a question in class or just noticing student(s) struggling.
- 2. Explain the problem you discovered through this assessment. Is there something that just wasn't "clicking" for your students? Was there some kind of knowledge or skill gap?
- 3. Describe your strategy for changing and improving your instruction in response to this assessed need.
- 4. Describe the outcome. How did your new strategy improve student learning

#### Responses

#### Response #1

During the first term, I noticed that my students were consistently struggling with the concept of introducing their sources while writing their papers. Because it was a pretty consistent error in a majority of the papers, I determined that this was a skill gap that needed to be specifically addressed. Therefore, I developed "A Snippet" assignment where students had to choose a source and a quote from the source they anticipated they would use. They would write a short introduction of the source and, using appropriate punctuation, also include the quote along with an explanation of why the quote supported an idea they held. By chunking this element on its own and providing students with a specific "piece" assignment that they could later use in their papers, I noticed a dramatic increase in students' understanding and ability to introduce sources in their papers. This was extremely satisfying for me as a teacher. I hope their future professors will also notice this skill as being a step up from previous students.

This spring, I assigned my students in both online Expository I sections to write a summary analysis of an essay entitled "American Students Abroad Can't Be 'Global Citizens'" by Talya Zemach-Bersin. The syllabus listed the essay as part of the required reading for the week. Then at the beginning that, I created an announcement about everything the students should complete and by what date. I reminded the students to read the essay. Then, I assigned the Summary Analysis paper. In my estimation, the textbook did an adequate job of explaining how to complete the assignment. After reading the essay, students were to perform tasks like: "read actively" by "marking passages that state main concepts to help (you) identify the thesis." The



text also suggested "Mark(ing) places where the author shifts to new points, which will identify the essay's structure" and then the word "structure" was defined. After this section, the assignment asked the students to write a short summary of the article. Next, a box containing bulleted points explained in what I thought were simple terms, what to include in and how to write the summary analysis. Again, using phrases like "Write it in your words; do not quote." Another phrase was "Length: a summary is usually no more than 5-10% the length of the original." When I received the first drafts of these summary analyses from the students, they a mess. Almost all of them. I just could not understand why. Luckily, the same day I was pondering my quandary, one of my international students in one of these two sections visited me in my office. I had never met him, and it was very enjoyable to meet him. He explained some of the trouble he was having with this assignment. As it turned out, the problem was twofold. First, I had not set up the assignment well enough. True, the terms of the summary analysis were simple, but I needed to give the students more background information, explain why they were doing it, give the assignment some context, and even give some real-world reasons that they might write a summary analysis. But the biggest problem the students had experienced was that the article was very difficult for them to read and digest. It turned out that what I had thought would be a quick and easy assignment was neither quick nor was it easy. I went back, made another announcement asking students to contact me, and did an informal poll. The consensus in both sections was that they wanted another shot at it, so I cleared all attempts, went back and did some re-teaching, and then assigned the summary analysis again, only this time I used a different reading, one that I hoped would be clearer and easier for the students to digest. And . . . it worked. I learned from the experience and I have grown as a result in my role as an instructor. I am putting myself in the role of the student more often and looking at things from their perspective. As a nice reward, when I woke up this morning I had received an email from this student saying he had just turned in his final paper. But first he had said "Good Morning, ma'm (sic)" in his native language. He told me that he wanted to teach me something because I had taught him so much this semester. And that is what it's all about. It's why I'm here.

#### Response #2

In an effort to get my students to focus and narrow their research efforts, before they begin researching, I have them draft a working hypothesis from which they create an annotated bibliography as they research. The annotated bibliography must contain two types of annotations for each source: 1) Description/Summary 2) Hypothetical Use. In the Description/Summary they are to briefly tell what the source is and in general what information it contains. In the Hypothetical Use they are to explain how the information in the source might be used to support the hypothesis they have drafted. I encourage students to keep their annotations specific and brief, no more than 3 to 4 sentences. They are also encouraged to constantly scrutinize their hypothesis for revision during the creation of the annotated bibliography, aiming to arrive at a final thesis statement. This practice during research results in more unified final drafts of the 10 page research paper. During the drafting of the research paper itself, students find that it is often practical to incorporate some or all of the annotations they have written into their papers as way of introducing the material from the source and tying it back to their thesis statement. The creation of the annotated bibliography with these types of notations emphasizes and reinforces the importance of unity within the 10 page research paper. This annotated bibliography proves to be a valuable prewriting exercise.



#### Response #3

I found consistency to be the biggest challenge this year. My class is Distance Learning to three high schools with three different schedules of speech and athletic endeavors. It seemed that we would just get one step of academic writing under control, and then when we moved on to the next, the first would be lost. I feel after repeated exercises and repeated readings of examples by the end of the year we were basically on the right track. There was still some difficulty with documentation within the paper itself. The works cited pages were pretty well under control.

#### **Response #4**

Over the years I have spent a great amount of class time teaching students about the importance of editing their own work. I have tried handouts, rubrics, journals, and other implementations and still their papers were handed in with numerous errors. This year I took a new approach, which was intense editing in the classroom. I developed different "rounds" of editing. Here are the titles for each round: Banned words--which causes them to use more vibrant nouns/noun phrases and verbs/verb phrases, 1st and 2nd pronouns--which they cannot use, comma splices, incomplete sentences, ending sentences with prepositions, run on sentences, Works Cited rules, parenthetical citations, punctuation with FANBOYS, semicolons and colons. For each round they were given about 10 minutes; at the beginning of the semester this editing takes 2 days. However, toward the end of the semester each round this takes about 5 minutes or less. This caused the students to become more diligent editors because they knew what errors they were looking to find. This also caused them to write college level sentences without these errors; in other words the students were better writers because they were better editors.

#### **Response #5**

With MLA changing some of its rules two years ago, I had a number of students who had been doing a form of MLA but were not aware of the changes. I posted some links to videos on Blackboard, but many students didn't bother to watch. So I finally took class time to show said videos in class, along with stopping and starting and reviewing to emphasize some points. I still have students who just don't care to get it right but I found that doing those things made it harder for them to ignore the changes!



## 2017-18 Assessment Report

## SOCI 1010 Introduction to Sociology

#### **Division: Humanities and Social Sciences**

#### Pilot Project: Nebraska Transfer Initiative Course Outcomes Assessment

In 2017-18, SOCI 1010 Introduction to Sociology was part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses.

#### **Project Goals**

- To ensure NTI course objectives/outcomes are used in NTI courses
- To establish a course level assessment process

#### Process

- Include NTI approved course objectives/student learning outcomes in the syllabus
- Document how course outcomes are measured
- Set an expectation (percentage) for each outcome
- Document results for each outcome

Two full-time Introduction to Sociology faculty and 237 students on the McCook and North Platte campuses participated in the pilot project. Click **here** for the SOCI 1010 Introduction to Sociology assessment matrices.

Results					
Course Outcome	Instructor 1 Outcome Met: Y Not Met: N	Instructor 2 Outcome Met: Y Not Met: N	Narrative Summary		
Use critical thinking and commu- nication skills when examining social issues and diverse popula- tions that exist within society	Y	Y	I would like to incorporate more of a global perspective in coming semesters		
Demonstrate an understanding of the role theoretical perspectives play in analyzing society and changes that occur within society	Y	Y	Two of the papers I have historically assigned (social location and Gattaca social caste/class reflections) will be		
Use research skills to apply socio- logical concepts and principles in the evaluation of societal events and their effects on human popu- lations	Y	Y	completed as in-class activities. I've decided to do this for three reasons - 1) because I feel the same learning outcomes can be realized, 2) to al- low students to develop teamwork skills needed in future careers, 3) to		
Compare and contrast the effect that basic sociological concepts have on human behavior includ- ing: culture, society, social struc- ture, socialization, social institu- tions and social groups	Y	Y	offer the opportunity to discuss is- sues with people who have poten- tially vastly different views (encouraging double consciousness) Overall, students enrolled in SOCI 1010 are meeting faculty expec-		
Compare and contrast social is- sues from a global and national perspective	Y	Y	tations based on course outcomes.		

Introduction to Sociology

#### NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurement	Target/ Expectation	Actual Results	Comments/Notes
Use critical thinking and communication skills when examining social issues and diverse populations that exist within society.	Weekly reflection assignments, in-class activities (develop sociological questions, roles/statuses activity, theory application, deviance adoption activity), exam questions (scenario multiple choice questions, essay questions) and papers (social location essay, observation, Gattaca social caste/class reflection and public meeting reflection). Weekly reflections where students apply course content to supplemental materials, in-class activities and discussions.			
Demonstrate an understanding of the role theoretical perspectives play in analyzing society and changes that occur within society.	In-class theory application activity, four core theories are discussed with each chapter/content area and included on each exam. In-class activities where students determine which theory best applies to sociological questions, application within writing assignments, test questions.	Identify strengths/weaknesses with 4 core theoretical perspectives, ability to choose which applies best to situations		
Use research skills to apply sociological concepts and principles in the evaluation of societal events and their effects on human populations.	Watch Milgram experiment video, class discussion, sociological observation paper (do actual observation) and test questions. Class discussion, test questions, sociological observation writing assignment	Identify strengths/weaknesses of both qualitative and quantative measures.	Students were able to identify problematic research design.	
Compare and contrast the effect that basic sociological concepts have on human behavior including: culture, society, social structure, socialization, social institutions and social groups.	We do this daily in class through lecture and discussion. Assessment of student understanding is incorporated in every assignment (weekly reflections, papers, and exams) Class discussion, test questions, weekly reflections, writing assignments	Understand the power of the social world and the complexities	By the end of the semester 90-95% of my students had a grasp on this skill. I would estimate that 85-90% have a beginning mastery of the skill	

Introduction to Sociology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurement	Target/ Expectation	Actual Results	Comments/Notes
Investigate the powerful influence that	We do this daily in class through lecture and discussion.	Understand the power of the	85-90% of assessments	
society has on human thoughts and	Assessment of student understanding is incorporated in	social world and the	received from students	
behavior.	every assignment (weekly reflections, papers, and	complexities	displayed mastery of this	
	exams)		skill.	
	Class discussion/activities, test questions, weekly			
	reflections, writing assignments			
Compare and contrast social issues from a	Discussions on how various sociological phenomenon	Realize that culture is the	Students have a beginning	I would like to incorporate more of a
global and national perspective.	play out in the US v. other countries and their	lens we use to interact with	grasp on a global	global perspective in coming
	interrelationships are the standard. Assessment is	the world and that	perspective. National	semesters.
	conducted through class discussion and test questions.	everyone's lens has a	perspective was stronger.	
		different shade due to their		
	Class discussion, test questions	own culture and		
		socialization.		

Introduction to Sociology

# NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	<b>Actual Results</b>	Comments/Notes
Use critical thinking and communication skills when examining social issues and diverse populations that exist within society.	Final Paper Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor. Class discussion in which student must analyze and critique a given concept and participation points are awarded for this discussion accordingly.	Students will average a 70% on the given measure	77.64%	Critique of the novel <i>Evicted</i> (Actual results reflects students who completed and submitted paper)
Demonstrate an understanding of the role theoretical perspectives play in analyzing society and changes that occur within society.	Research paper; Online discussion forum; Weekly paper/assignment Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor	Students will average a 70% on the given measure	93.40%	Assignment #2 (Thomas Theorem & Socialization) (Actual results reflects students who completed and submitted paper)
Use research skills to apply sociological concepts and principles in the evaluation of societal events and their effects on human populations.	Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor Research paper; Online discussion forum; Weekly paper/assignment	Students will average a 70% on the given measure	87.54%	Assignment #3 (Deviance Experiment) (Actual results reflects students who completed and submitted paper)

# 2017-18 MATHEMATICS AND SCIENCE DIVISION ASSESSMENT REPORT

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MID-PLAINS COMMUNITY COLLEGE McCook Community College | North Platte Community College Broken Bow | Imperial | Ogallala | Valentine

# 2017-18 MATHEMATICS AND SCIENCE DIVISION ASSESSMENT REPORT



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# 2017-18 MATHEMATICS AND SCIENCE DIVISION ASSESSMENT REPORT



### Introduction

In the mathematics and science division, course assessment was approached utilizing the following methods

- Pre and post-test: Human Anatomy and Physiology II and Microbiology
- Course assessment based on course outcomes: General Biology and General Chemistry I & II
- Common Exam: College Algebra

### The Numbers

Course	Number of faculty submitting data	Number of Students
Human Anatomy & Physiology II	1	24
Microbiology	1	11
General Biology	2	223
General Chemistry I	2	70
General Chemistry II	2	22
College Algebra	7	236

### Conclusions

Overall, students are meeting faculty expectations. For specific examples of changes made, see assessment narratives and matrices.

Questions regarding this report may be directed to the MPCC Office of Institutional Assessment, 601 W State Farm RD., North Platte, NE 69101, 308-535-3798, or <u>andrewsh@mpcc.edu</u>.



N=24

# 2017-18 Assessment Report BIOS 2260 Human Anatomy & Physiology II and BIOS 2460 Microbiology

**Division: Mathematics and Science** 

Results BIOS 2260 Human Anatomy and Physiology II				Results BIOS 2460 icrobiology	
A & P II Pre-Test	A & P II Post Test	Change		Microbiology Pre-Test	Microbiolog Pre-Test
30.08%	53.84%	28.76%	]	37.00%	68.00%

Pre-Test	Change
68.00%	31.00%
	Pre-Test

**Narrative Feedback:** The overall goal is to see a 25% improvement from the pre test to the post test. On average, students improved by 29% in Human Anatomy Physiology I and 31% in Microbiology. Overall, the faculty member is pleased with these results, but recognizes there for improvement.

# Mathematics and Science Division Assessment Notes

Nebraska Transfer Initiative Course Outcomes Assessment Pilot Project: BIOS 1010 General Biology, CHEM 1090, General Chemistry I, and CHEM 1100 General Chemistry II: In the 2017-18, BIOS 1010 General Biology was part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses. The project goals were to ensure NTI course objectives/outcomes are used in NTI courses and to establish a course level assessment process. Results indicate that students meeting faculty expectations

**MATH 1150 College Algebra:** From the early 2000s to Spring 2010, the CAAP exam was administered to MPCC graduates to assess, evaluate, and enhance student learning in general education areas. Due to low response rate, low data use, and high cost, the CAAP test was discontinued in the Spring of 2010. In the Fall of 2013, the math department developed a common exam for MATH 1150 College Algebra. This exam has been administered every semester since. This common exam administered by the instructor who determines the testing environment and when the exam is administered. Expectations were met for all three areas (Basic Skills, Elementary/Intermediate Algebra, and College Algebra) tested. For more information, **click here.** 



# 2017-18 Assessment Report BIOS 1010 General Biology

#### Division: Math and Science Pilot Project: Nebraska Transfer Initiative Course Outcomes Assessment

In 2017-18, BIOS 1010 General Biology was part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses.

#### **Project Goals**

- To ensure NTI course objectives/outcomes are used in NTI courses
- To establish a course level assessment process

#### Process

- Include NTI approved course objectives/student learning outcomes in the syllabus
- Document how course outcomes are measured
- Set an expectation (percentage) for each outcome
- Document results for each outcome

Two full-time Biology faculty and 223 students on the McCook and North Platte campuses participated in the pilot project. Click **here** for the BIOS 1010 General Biology assessment matrices.

Reculte

Results				
Course Outcome	Instructor 1 Outcome Met: Y Not Met: N	Instructor 2 Outcome Met: Y Not Met: N	Narrative Summary	
Demonstrate and explain scientific theo- ries and methodologies	Ν	Y	Changes made include reviewing	
Describe the characteristics common to living things, and the differences among organism groups in the domain/kingdom classification system	Y	Y	test questions to make sure the questions reflect material learned in class and reviewing lectures to look for ways to improve student's un-	
Demonstrate a working knowledge of plant, animal and prokaryotic cell struc- ture and function	Y	Y	derstanding of test questions	
Explain the chemical basis of life, including atomic and molecular structure, overview of metabolic pathways, molecular basis of genetic material and protein synthesis	Y	Y	As expected, specific outcome measurements were different for the two participating faculty. How- ever, both faculty used pre and post	
Describe the genetic principles of Mende- lian inheritance, meiosis, mitosis, chromo- some structure, mutagenesis, and con- cepts of modern biotechnology	Ν	Y	-tests to measure student progress Overall, students enrolled in BIOS 1010 are meeting faculty expecta-	
Explain the interactions and adaptations of plants and animals within their respec- tive ecosystems and biosphere	Y	Ν	tions based on course outcomes.	
Describe the theories of biological/ scientific evolution and the genetic, mor- phological, fossil, and historical evidence supporting these theories	N	Y		



# 2017-18 Assessment Report CHEM 1090 and CHEM 1100 General Chemistry I & II

#### **Division: Math and Science**

#### Pilot Project: Nebraska Transfer Initiative Course Outcomes Assessment

In 2017-18, CHEM 1090 and CHEM 1100 General Chemistry I & II were part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses.

#### **Project Goals**

- To ensure NTI course objectives/outcomes are used in NTI courses
- To establish a course level assessment process

#### Process

- Include NTI approved course objectives/student learning outcomes in the syllabus •
- Document how course outcomes are measured (Fall and Spring semesters) •
- Set an expectation (percentage) for each outcome (Fall and Spring semesters) ٠
- Document results for each outcome (Spring semester) •

Two full-time chemistry faculty and 70 students on the McCook and North Platte campuses participated in the pilot project. Click here for the CHEM 1090 and CHEM 1100 General Chemistry I & II assessment matrices.

Results: CHEM 1090 General Chemistry I				
Course Outcome	Instructor 2 Outcome Met: Y Not Met: N	Narrative Summary		
Calculate one quantity from another by use of dimensional analysis	Y	No students required "severe" help. However, some students did not turn in homework		
Describe the structure of an atom.	Y	assignments and received a "0"		
Explain periodic trends.	Y	for the assignment.		
Describe the changes as energy interacts with an atom.	Y			
Compare and contrast covalent and ionic bonding.	Y	All students that attended labs were able to complete labs with the 90% or higher		
Draw Lewis structures for atoms, ions, and molecules.	Y	grade being achieved.		
Determine the shape of a molecule.	Y			
Determine correct International Union of Pure and Applied Chemistry (IUPAC) names and chemical formulas of compounds.	Y	Overall, students enrolled in CHEM 1090 are meeting faculty expectations based on course outcomes.		
Describe chemical reactions by symbolic, numeric, and verbal means	Y	on course outcomes.		
Predict the products of simple reactions.	Y			

\*Note: In the Fall, faculty were required to submit outcome measurements, but results were optional. Instructor 2 submitted results. Instructor 1 focused on measurements.

<b>Results:</b>	CHEM 1100
General	Chemistry II

Course Outcome	*Instructor 1 Outcome Met: Y Not Met: N	Narrative Summary
Calculation solution concentrations	N	On the labs the students did well but struggled
Apply principles of colligative properties	Ν	to master the concepts that were discussed in
Apply principles of chemical kinetics	N	class. I was able to see on the exam that some
Perform calculations involving chemical equi- libria	Ν	students 'got it' while other students did not.
Predict reaction outcomes based on chemi- cal equilibria and Le Chatlier's principle	Ν	The students were able to use the color change of the reaction in lab to say what was
Demonstrate an understanding of the prop- erties of acids and bases, including pH, buff- ers, acid and based equilibria in weak acids and bases and acid-base equilibrium con- stants	Ν	happening but tended to struggle on the pre- diction just looking at an equation. I will revise the question on Exam 2 so that it is clearer for students which
Describe the relationships between enthalpy, entropy, and Gibb's free energy	Ν	might help the evidence of their mastery of the concept
Demonstrate an understanding of oxidation- reduction reactions in terms of electron transfer	Ν	

\*Instructor 1 set expectations at 100%

Note: Instructor #2 did not use the Nebraska Transfer Initiative Outcomes for CHEM 1100. While similar, the course outcomes on Instructor #2's syllabus do not exactly match the NTI outcomes. Because of this, the results are not included in the summary, but Instructor 2's assessment matrix is included as part of this report.



Mid-Plains Community College Assessment Report: Narrative Summary

> Academic Year: 2017-18

#### Course: MATH 1150 College Algebra Division: Math and Science

#### Introduction

From the early 2000s to Spring 2010, the CAAP exam was administered to MPCC graduates to assess, evaluate, and enhance student learning in general education areas. Due to low response rate, low data use, and high cost, the CAAP test was discontinued in the Spring of 2010.

In the Fall of 2013, the math department developed a common exam for MATH 1150 College Algebra. This exam has been administered every semester since.

#### Assessment Methods & Procedures

• Common exam administered by the instructor. The instructor determines the testing environment and when the exam is administered.

#### **Results/Outcomes**

Expectations were met for all three areas tested.

Objectives	Expected Results	Actual Results	Expectation Met
Besic Chills, the exit has a the shift of			
Basic Skills: Use arithmetic skills to	80%	80.3%	Y
solve mathematical problems.			
Elementary & Intermediate	70%	73.1%	Y
Algebra: Apply a variety of			
mathematical concepts to solve			
elementary and intermediate			
algebra problems			
College Algebra: Apply a variety of	60%	59.5%	Ν
mathematical concepts to solve			
College Algebra problems			

#### Click here for the MATH 1150 assessment matrix.

Conclusions, Recommendations, and Changes Made

- Students are still not meeting expectations for the College Algebra questions, but results are .5% better than last year.
- This is the last year the current College Algebra common exam will be used.
- In 2018-19, mathematics faculty will be exploring different methods of assessment. Possibilities include an updated online version of the common exam or course assessment based on common course outcomes.
- An effort will be made to include adjunct and dual credit faculty in assessment activities.

Spring 2018 BIOS 1010 General Biology

# NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Demonstrate and explain scientific theories and methodologies.	article. They were asked to identify and explain the research question, hypothesis, variables, methodology,	From a 10 point rubric, students were predicted to earn an average of <b>4</b> at the beginning of the semester, and earn an average of at least <b>7</b> when repeating the assessment at the end of the semester.	When given the article on the first day of class, students scored and average of <b>4.2</b> <b>out of 10.</b> When given the same article to assess at the end of the semester, they averaged a <b>6.19</b>	Students improved by an average of <b>19.9%</b> , and came close the expectation of earning an average score of 7 or better. I will review the questions and rubric for this exercise to see where it can be improved.
Describe the characteristics common to living things, and the differences among organism groups in the domain/ kingdom classification system		Expected outcome on the pretest was an average of <b>40%.</b> The expected average at the end of the semester was at least <b>55%</b> average (at least 15% improvement).	The pretest score was an average of <b>44.3%</b> . The posttest score was an average of <b>62.71%</b> .	Students exceeded the posttest goal, demonstrating a proficient knowledge of biological classification and other concepts explored in the exam.
Demonstrate a working knowledge of plant, animal and prokaryotic cell structure and function.	Students completed a capstone lab exercise where they examined the impact of osmosis on both living and artifical cells.	The target for this exercise was for the class to achieve at least a <b>70%</b> average on each of the lab's three experiments.	Students conducted 3 cell function experiments, using blood cells, plant cells, and artificial cells. The average score on each of these was <b>84.8%</b>	Students achieved the target goal. Continue this exercise next semester.
Explain the chemical basis of life, including atomic and molecular structure, overview of metabolic pathways, molecular basis of genetic material and protein synthesis.	Students wrote a detailed research paper explaining their osmosis experiment, how molecules move in and out of cells and why it is essential to life.	The target for this research paper was students to average at least <b>35</b> points out of a <b>50</b> point rubric. The rubric was designed to follow the criteria of professional journal articles.	The class average on the osmosis research paper was a <b>76.6%.</b>	Students achieved the target goal. Continue this exercise next semester.
Describe the genetic principles of Mendelian inheritance, meiosis, mitosis, chromosome structure, mutagenesis, and concepts of modern biotechnology	10 questions from Exam #3 (which covers cell division, genetics, and biotechnology) were chosen to evaluate students' understanding of these concepts	The target for this evaluation was for students to average at least 7/10 correct on these genetics questions to show mastery of the material.	The class average on the selected genetics, mitosis, and biotech questions was 6.2.	Students did not meet the target goal of proficiency in the selected questions. I will examine which questions were missed by the majority of students so that I can evaluate which topics need more attention during lecture and lab time.

Spring 2018 BIOS 1010 General Biology

# NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Explain the interactions and adaptations of plants and animals within their respective ecosystems and biosphere	10 questions from Exam #5 (which covers ecology) were chosen to evaluate students' understanding of these concepts	The target for this evaluation was for students to average at least <b>7/10</b> correct on these genetics questions to show mastery of the material.	Students scored an average of <b>7.8/10</b> on the selected questions.	Students exceeded the target of scoring at least <b>7/10</b> on questions relating to ecology. Maintain current approach to teaching these topics
Describe the theories of biological/scientific evolution and the genetic, morphological, fossil, and historical evidence supporting these theories.	10 questions from Exam #4 (which covers evolution) were chosen to evaluate students' understanding of these concepts	The target for this evaluation was for students to average at least <b>7/10</b> correct on these genetics questions to show mastery of the material.	Students score an average of <b>6.1/10</b> on the selected questions.	Students did not meet the target of scoring at least <b>7/10</b> on questions relating to evolution. Instructor will re- xamine the questions to determine if they accurately reflect the material learned in class, and will reivew lecture material to look for ways to improve students' understanding of the concepts.

BIOS 1010 General Biology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Demonstrate and explain scientific theories and methodologies.	Students are given a short review of research in a biological discipline. Students are asked to identify the – Research Question, Hypothesis, Independent - Dependent, and Control variables, type of data, and the Conclusion. Students also complete a written article review assignment designed to retrieve, review and critically analyze an original research manuscript of their choice that they retrieve from a scientific journal.	From the questions regarding the review of the biological research reading, students are expected to average at least <b>70%</b> correct answers. All students (100% completion) are expected to retrieve, provide a written review and critical analysis of an original research article.	In the review of the biological research reading, students averaged a score of 5 out of 7 or 71%. Thirty-three out of thirty-eight students (87%) successfully completed the written review and critical analysis of an original research article assignment.	Types of data - Quantitative vs qualitative data was most often missed, followed by independent/dependent variable identification. Goal is to emphasize this concept to increase number of correct responses
Describe the characteristics common to living things, and the differences among organism groups in the domain/ kingdom classification system		Expected outcome is an overall class improvement of <b>15%</b> on the Pre/Post test assessment and an overall average of <b>50%</b> on exam 1.	The overall class average of students score on the pre test was <b>42.4%.</b> The overall class average of the students score on the post test was <b>57.6%</b> which is a <b>15.2%</b> increase. The overall class average on exam 1 was 76%.	

BIOS 1010 General Biology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Demonstrate a working knowledge of plant, animal and prokaryotic cell structure and function.	Students complete the Bio- Rad algae bead lab exercise to measure the rate of Photosynthesis vs Cellular Respiration in Algae cells. This is also assessed during the faculty developed Pre/Post test. Students also complete cell structure and function lab exercises.	An average of at least 70% is expected on the Algae Bead and cell structure and function lab reports. A <b>15%</b> increase in the Post test score is expected.	The overall class average of students score on the pre test was <b>42.4%</b> . The overall class average of the students score on the post test was <b>57.6%</b> which is a <b>15.2%</b> increase.	and analyzing algae bead lab. Algae lab
Explain the chemical basis of life, including atomic and molecular structure, overview of metabolic pathways, molecular basis of genetic material and protein synthesis.	Students complete the Bio- Rad algae bead lab exercise to measure the rate of Photosynthesis vs Cellular Respiration in Algae cells. This is also assessed during the faculty developed Pre/Post test and Exam 3. Students are also expected to complete several labs such as an enzyme lab, organic molecule and pH lab.	An average of at least 70% is expected on the Algae Bead lab report and on the other related labs. An average of 50% is expected on exam 3. A 15% increase in the Post test score is expected.	The overall class average of students score on the pre test was 42.4%. The overall class average of the students score on the post test was 57.6% which is a 15.2% increase. The overall class average on exam 3 was 74%.	
Describe the genetic principles of Mendelian inheritance, meiosis, mitosis, chromosome structure, mutagenesis, and concepts of modern biotechnology	This is assessed during the Pre/Post test and in Exam 3 and/or 4 of the class. Students also complete labs regarding Mendelien inheritance, meiosis, mitosis and DNA isolation/technology		The overall class average of students score on the pre test was 42.4%. The overall class average of the students score on the post test was 57.6% which is a 15.2% increase. The overall class average on exam 4 was 71%.	

BIOS 1010 General Biology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Explain the interactions and adaptations	Students complete a	An average of at least 70% is	The overall class average of students score on	The Biome worksheet was completed in
of plants and animals within their	worksheet over the major	expected on the Biome	the pre test was 42.4%. The overall class	class, as a group while watching the
respective ecosystems and biosphere	Biomes of the Earth and the	Worksheet. A <b>15%</b> increase in the	average of the students score on the post test	"Pole to Pole" video.
	Biotic/Abiotic factors found	Post test score is expected.	was 57.6% which is a <b>15.2%</b> increase.	
	in each Biome. This is also			
	assessed during the Pre/Post			
	test and in Exam 4 of the			
	class.			
Describe the theories of	This is assessed during the	An average of at least 50% is	The overall class average of students score on	
biological/scientific evolution and the	Pre/Post test and in Exam 4	expected on the class exam. A	the pre test was 42.4%. The overall class	
genetic, morphological, fossil, and	of the class.	15% increase in the Post test score	average of the students score on the post test	
historical evidence supporting these		is expected.	was 57.6% which is a <b>15.2%</b> increase. The	
theories.			overall class average on exam 4 was 71%.	
Fall 2017 CHEM 1090 General Chemistry				
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NTI Course Assessment Pilot Pro Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Calculate one quantity from another by use of dimensional analysis		All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with	comment
	Homework that involves conversion factors/stoichiometry. (Chapters 1 & 3 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve conversion factors/stoichiometry. (Specific questions used on Exams 1 & 2)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #21 from exam one was used as the target question: Goal met: 89% of students completed the question 11% completed the question 60% or greater.	
Describe the structure of an atom.	Lab experiments that involve atomic structure. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves atomic structure. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve atomic structure. (Specific questions used on Exam 1)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #8 from exam one was used as the target question: Goal met: 92% of students completed the question completely. 8% completed the question 60% or greater.	

Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Explain periodic trends.	-	All students will be able to complete lab	All students that attended labs were able to complete labs with	
	general)	experiments on their own or in a group with a grade of 90% or higher.	the 90% of higher grade being achieved.	
	Homework that involves	All students will be able to complete HW	No students required "severe" help. However, some students	
		assignments without requiring "severe" help.	did not turn in homework assignments and received a "0" for the	
		("Severe" being defined as requiring 30	assignment.	
	,	minutes or more help from instructor outside	ő	
		of class.)		
	Tests that involve periodic	All students pass the target question(s) with a	Question #25 from exam three was used as the target question:	
		completion of "60 %" or higher, with 80% of		
	used on Exams 3 & 4)	the student receiving a completion level of	Goal met:	
		"70%" or higher.	98% of students completed the question completely.	
			2% completed the question 60% or greater.	
Describe the changes as energy interacts	Lab experiments that involve	All students will be able to complete lab	All students that attended labs were able to complete labs with	
with an atom.	thermodynamics. (All labs in	experiments on their own or in a group with a	the 90% or higher grade being achieved	
		grade of 90% or higher.		
	Homework that involves	All students will be able to complete HW	No students required "severe" help. However, some students	
	, , ,		did not turn in homework assignments and received a "0" for the	
	in textbook)	("Severe" being defined as requiring 30	assignment.	
		minutes or more help from instructor outside		
	Tasts that invelve	of class.)	Question #7 from every three was used as the target supplier.	
		completion of "60 %" or higher, with 80% of	Question #7 from exam three was used as the target question:	
		the student receiving a completion level of	Goal met:	
		"70%" or higher	82% of students completed the question completely.	
			18% completed the question 60% or greater.	

Fall 2017 CHEM 1090 General Chemistry I NTI Course Assessment Pilot Pro				
Instructor #2 Course Outcome	Measurements	Target / Expectation	Actual Results	Comment
Course Outcome Compare and contrast covalent and ionic bonding.	Lab experiments that involve	Target/ Expectation All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher. All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside	All students that attended labs were able to complete labs with	comment
		of class.) All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12 & #13 from exam one were used as the target question2: Goal met: 85% of students completed the question completely. 15% completed the question 60% or greater	
Draw Lewis structures for atoms, ions, and molecules.	Lab experiments that Lewis Structures. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves Lewis Structures. (Chapters 9 & 10 in textbook)	All students will be able to complete HW	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve Lewis Structures. (Specific questions used on Exam 4)	,	Questions #12, #13, & #14 from exam four were used as the target questions: Goal met: 80% of students completed the question completely. 20% completed the question 60% or greater.	

NTI Course Assessment Pilot Pro Instructor #2 Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Determine the shape of a molecule.	Lab experiments that involve VSEPR Theory. (All labs in		All students that attended labs were able to complete labs with	comment
	in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Theory. (Specific questions	completion of "60 %" or higher, with 80% of the student receiving a completion level of	Question #15 from exam four was used as the target question: Goal met: 81% of students completed the question completely. 19% completed the question 60%	
Determine correct International Union of Pure and Applied Chemistry (IUPAC) names and chemical formulas of compounds.	on chemical naming. (All	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	factors/stoichiometry.	completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12-#16 from exam one were used as the target question2: Goal met: 94% of students completed the question completely. 6% completed the question 60% or greater.	

## Fall 2017

## CHEM 1090 General Chemistry I

## NTI Course Assessment Pilot Project: Semester 1

Course Outcome	Measurements	Target/ Expectation	Actual Results
Describe chemical reactions by symbolic, numeric, and verbal means.	Lab experiments that focus on chemical reactions. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.
	Homework that chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.
	Tests that involve chemical reactions. (Specific questions used on Exam 2)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #5-8 from exam two were used as the target questions: Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.
Predict the products of simple reactions.	Lab experiments that focus on chemical reactions. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.
	Homework that chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.
	Tests that involve chemical reactions. (Specific questions used on Exam 2)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.

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CHEM 1100 General Chemistry II

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	<b>Actual Results</b>	Comment
Calculation solution concentrations	Lab Work	100%	88.89%	All but one student this semester was able to perform solution concentration calculations well and reliably over the semester
Apply principles of colligative properties	It was covered in lecture and tested on Exam 1 and the final	100%	44.44% up from 0%	While I was pleased to see the increase on the mastery of this I was disheartened to see that most of the students missed this problem.
Apply principles of chemical kinetics	Lab and exams	100%	65.56% on Exam 1	On the labs the students did well but struggled to master the concepts that were discussed in class. I was able to see on the exam that some students 'got it' while other students did not. The students who missed this problem on the exam did not ask questions about it during class or lab nor did they come to office hours.
Perform calculations involving chemical equilibria	Exam 2	100%	84.40%	All but one student mastered this question with a B or better.
Predict reaction outcomes based on chemical equilibria and Le Chatlier's principle	Lab and exam 2	100%		The students were able to use the color change of the reaction in lab to say what was happening but tended to struggle on the prediction just looking at an equation. I will revise the question on Exam 2 so that it is clearer for students which might help the evidence of their mastery of the concept

CHEM 1100 General Chemistry II

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	<b>Actual Results</b>	Comment
Demonstrate an understanding of the properties of acids and bases, including pH, buffers, acid and based equilibria in weak acids and bases and acid-base equilibrium constants	Exam 2	100%		All the students were able to calculate pH while some struggled in calculating the equilibrium concentrations.
Describe the relationships between	Exam 3	100%	<b>U</b> ,	There was a definite mix of understanding
enthalpy, entropy, and Gibb's free energy			got it, 11.1% did not	on these concepts. The math portion was relatively easy.
Demonstrate an understanding of oxidation-reduction reactions in terms of electron transfer	Exam 3	100%		All students understood how the electrons where transferring between the anode and the cathode but not all the students (2 of 9) could properly identify the anode and the cathode. 77.7% could properly draw a voltaic cell.
Explain the electrical nature of reactions and electrochemical cells in terms of oxidation-reduction reactions	Lab-Experiment #26	100%	about 55.56%	I don't have the labs, I gave them back to students, but most of them did quite well. They enjoyed being able to see

Spring 2018				
CHEM 1100 General Chemistry	I			
NTI Course Assessment Pilot Pro	oject: Semester 2			
Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Calculate one quantity from another by use of dimensional analysis	Lab experiments that involve conversion factors/stoichiometry. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves conversion factors/stoichiometry. (Chapters 1 & 3 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	factors/stoichiometry.	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #21 from exam one was used as the target question: Goal met: 89% of students completed the question completely. 11% completed the question 60% or greater.	
Describe the structure of an atom	Lab experiments that involve atomic structure. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves atomic structure. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	Tests that involve atomic structure. (Specific questions used on Exam 1)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #8 from exam one was used as the target question: Goal met: 92% of students completed the question completely. 8% completed the question 60% or greater.	

Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Explain periodic trends.	<b>^</b>	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	trends. (Specific questions	completion of "60 %" or higher, with 80% of	Question #25 from exam three was used as the target question: Goal met: 98% of students completed the question completely. 2% completed the question 60% or greater.	
Describe the changes as energy interacts with an atom	thermodynamics. (All labs in	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved	
	Homework that involves thermodynamics. (Chapter 6 in textbook)		No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
		completion of "60 %" or higher, with 80% of the student receiving a completion level of	Question #7 from exam three was used as the target question: Goal met: 82% of students completed the question completely. 18% completed the question 60% or greater.	

Spring 2018 CHEM 1100 General Chemistry II NTI Course Assessment Pilot Project: Semester 2 Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Compare and contrast covalent and ionic bonding	<b>1</b>	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with	
	Homework that involves bonding. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	(Specific questions used on	completion of "60 %" or higher, with 80% of the student receiving a completion level of	Questions #12 & #13 from exam one were used as the target Goal met: 85% of students completed the question completely. 15% completed the question 60% or greater	
Draw Lewis structures for atoms, ions, and molecules		All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves Lewis Structures. (Chapters 9 & 10 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve Lewis Structures. (Specific questions used on Exam 4)		Questions #12, #13, & #14 from exam four were used as the target questions: Goal met: 80% of students completed the question completely. 20% completed the question 60% or greater.	

Spring 2018 CHEM 1100 General Chemistry I	I			
NTI Course Assessment Pilot Pro	oject: Semester 2			
Instructor #2 Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Determine the shape of a molecule.		All students will be able to complete lab	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves VSEPR Theory. (Chapter 10 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Theory. (Specific questions	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #15 from exam four was used as the target question: Goal met: 81% of students completed the question completely. 19% completed the question 60%	
Determine correct International Union of Pure and Applied Chemistry (IUPAC)names and chemical formulas of compounds	Lab experiments that involve chemical naming. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve conversion factors/stoichiometry.	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12-#16 from exam one were used as the target Goal met: 94% of students completed the question completely. 6% completed the question 60% or greater.	

Spring 2018 CHEM 1100 General Chemistry I NTI Course Assessment Pilot Pro Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Describe chemical reactions by symbolic, numeric, and verbal means	Lab experiments that involve chemical reactions. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	reactions. (Specific questions	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #5-8 from exam two were used as the target questions: Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.	
Predict the products of simple reactions	Lab experiments that involve chemical reactions. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involve chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	reactions. (Specific questions	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.	



## Area/Department: Mathematics: College Algebra Common Exam

	Objectives	Link to College SLO's	Measure & Methodology (who, what, when & why)	<b>Expected Results/Standards</b> (What students should have learned)	Expectation Met (Y or N)	Analysis	Action
1	Use arithmetic skills to solve mathematical problems.	1	Questions 19-27 of a faculty- developed assessment given to all College Algebra students	Expected results for 2016-17: 80% Actual results for 2016-17: 80.3%	Yes	Expectation met.	This is the last year the current College Algebra common exam will be used. In 2018-19, mathematics faculty will be exploring
2	Apply a variety of mathematical concepts to solve elementary and intermediate algebra problems	1	Questions 10-18 of a faculty- developed assessment given to all College Algebra students	Expected results for 2017-18: 70% Actual results for 2017-18: 73.1%	Yes	Expectation met.	different methods of assessment. Possibilities include an updated online version of the common exam or course assessment based on common course
3	Apply a variety of mathematical concepts to solve College Algebra problems	1	Questions 1-9 of a faculty-developed assessment given to all College Algebra students	Expected results for 2017-18: 60% Actual results for 2017-18: 59.5%	No	Results below expectation, but 0.5% better than the previous year.	outcomes. An effort will be made to include adjunct and dual credit faculty in assessment activities.

# 2017-18 COURSE OUTCOME ASSESSMENT PILOT PROJECT



MID-PLAINS COMMUNITY COLLEGE McCook Community College | North Platte Community College Broken Bow | Imperial | Ogallala | Valentine

## 2017-18 COURSE OUTCOME ASSESSMENT PILOT PROJECT



## **Course Outcome Assessment Pilot Project**

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### Introduction

In 2017-18, a pilot course assessment project focusing on general education courses that are part of the <u>Nebraska</u> <u>Transfer Initiative</u> (NTI), was conducted.

### Project Goals

- 1. To ensure NTI course objectives and outcomes are include in course syllabi
- 2. To establish a course assessment process

### Process

- 1. Include NTI approved course objectives/student learning outcomes in the syllabus
- 2. Document how course outcomes are measured
- 3. Set an expectation (percentage) for each outcome
- 4. Optional for Fall 2017; Required for Spring 2018: Document results for each outcome

### **The Numbers**

Six full time faculty from McCook and North Platte who taught General Chemistry I&II, General Biology, and Introduction to Sociology in 2017-18 participated in the pilot project. Student numbers include all students who completed the four courses involved in the pilot project.

Course	Number of Students
General Chemistry I	70
General Chemistry II	22
Biology	223
Introduction to Sociology	237

### Conclusions

Overall, students are meeting faculty expectations for course outcomes. With one exception, faculty are using NTI course outcomes.

Questions regarding this report may be directed to the MPCC Office of Institutional Assessment, 601 W State Farm RD., North Platte, NE 69101, 308-535-3798, or <u>andrewsh@mpcc.edu</u>.



## 2017-18 Assessment Report BIOS 1010 General Biology

### Division: Math and Science Pilot Project: Nebraska Transfer Initiative Course Outcomes Assessment

In 2017-18, BIOS 1010 General Biology was part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses.

### **Project Goals**

- To ensure NTI course objectives/outcomes are used in NTI courses
- To establish a course level assessment process

### Process

- Include NTI approved course objectives/student learning outcomes in the syllabus
- Document how course outcomes are measured
- Set an expectation (percentage) for each outcome
- Document results for each outcome

Two full-time Biology faculty and 223 students on the McCook and North Platte campuses participated in the pilot project. Click **here** for the BIOS 1010 General Biology assessment matrices.

Results

Results						
Course Outcome	Instructor 1 Outcome Met: Y Not Met: N	Instructor 2 Outcome Met: Y Not Met: N	Narrative Summary			
Demonstrate and explain scientific theo- ries and methodologies	Ν	Y	Changes made include reviewing			
Describe the characteristics common to living things, and the differences among organism groups in the domain/kingdom classification system	Y	Y	test questions to make sure the questions reflect material learned in class and reviewing lectures to look for ways to improve student's un-			
Demonstrate a working knowledge of plant, animal and prokaryotic cell struc- ture and function	Y	Y	derstanding of test questions			
Explain the chemical basis of life, including atomic and molecular structure, overview of metabolic pathways, molecular basis of genetic material and protein synthesis	Y	Y	As expected, specific outcome measurements were different for the two participating faculty. How- ever, both faculty used pre and post			
Describe the genetic principles of Mende- lian inheritance, meiosis, mitosis, chromo- some structure, mutagenesis, and con- cepts of modern biotechnology	Ν	Y	-tests to measure student progress Overall, students enrolled in BIOS 1010 are meeting faculty expecta-			
Explain the interactions and adaptations of plants and animals within their respec- tive ecosystems and biosphere	Y	Ν	tions based on course outcomes.			
Describe the theories of biological/ scientific evolution and the genetic, mor- phological, fossil, and historical evidence supporting these theories	Ν	Y				



## 2017-18 Assessment Report CHEM 1090 and CHEM 1100 General Chemistry I & II

### **Division: Math and Science**

### Pilot Project: Nebraska Transfer Initiative Course Outcomes Assessment

In 2017-18, CHEM 1090 and CHEM 1100 General Chemistry I & II were part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses.

### **Project Goals**

- To ensure NTI course objectives/outcomes are used in NTI courses
- To establish a course level assessment process

### Process

- Include NTI approved course objectives/student learning outcomes in the syllabus •
- Document how course outcomes are measured (Fall and Spring semesters) •
- Set an expectation (percentage) for each outcome (Fall and Spring semesters) ٠
- Document results for each outcome (Spring semester) •

Two full-time chemistry faculty and 70 students on the McCook and North Platte campuses participated in the pilot project. Click here for the CHEM 1090 and CHEM 1100 General Chemistry I & II assessment matrices.

Results: CHEM 1090 General Chemistry I					
Course Outcome	Instructor 2 Outcome Met: Y Not Met: N	Narrative Summary			
Calculate one quantity from another by use of dimensional analysis	Y	No students required "severe" help. However, some students did not turn in homework			
Describe the structure of an atom.	Y	assignments and received a "0"			
Explain periodic trends.	Y	for the assignment.			
Describe the changes as energy interacts with an atom.	Y				
Compare and contrast covalent and ionic bonding.	Y	All students that attended labs were able to complete labs with the 90% or higher			
Draw Lewis structures for atoms, ions, and molecules.	Y	grade being achieved.			
Determine the shape of a molecule.	Y				
Determine correct International Union of Pure and Applied Chemistry (IUPAC) names and chemical formulas of compounds.	<sup>Y</sup> Overall, students enrolled in CHEM 1 meeting faculty expectations ba on course outcomes.				
Describe chemical reactions by symbolic, numeric, and verbal means	Y	on course outcomes.			
Predict the products of simple reactions.	Y				

\*Note: In the Fall, faculty were required to submit outcome measurements, but results were optional. Instructor 2 submitted results. Instructor 1 focused on measurements.

<b>Results:</b>	CHEM 1100
General	Chemistry II

Course Outcome	*Instructor 1 Outcome Met: Y Not Met: N	Narrative Summary
Calculation solution concentrations	N	On the labs the students did well but struggled
Apply principles of colligative properties	N	to master the concepts that were discussed in
Apply principles of chemical kinetics	N	class. I was able to see on the exam that some
Perform calculations involving chemical equi- libria	Ν	students 'got it' while other students did not.
Predict reaction outcomes based on chemi- cal equilibria and Le Chatlier's principle	Ν	The students were able to use the color change of the reaction in lab to say what was
Demonstrate an understanding of the prop- erties of acids and bases, including pH, buff- ers, acid and based equilibria in weak acids and bases and acid-base equilibrium con- stants	Ν	happening but tended to struggle on the pre- diction just looking at an equation. I will revise the question on Exam 2 so that it is clearer for students which
Describe the relationships between enthalpy, entropy, and Gibb's free energy	Ν	might help the evidence of their mastery of the concept
Demonstrate an understanding of oxidation- reduction reactions in terms of electron transfer	Ν	

\*Instructor 1 set expectations at 100%

Note: Instructor #2 did not use the Nebraska Transfer Initiative Outcomes for CHEM 1100. While similar, the course outcomes on Instructor #2's syllabus do not exactly match the NTI outcomes. Because of this, the results are not included in the summary, but Instructor 2's assessment matrix is included as part of this report.



### 2017-18 Assessment Report

### SOCI 1010 Introduction to Sociology

### **Division: Humanities and Social Sciences**

### Pilot Project: Nebraska Transfer Initiative Course Outcomes Assessment

In 2017-18, SOCI 1010 Introduction to Sociology was part of pilot assessment project focused on Nebraska Transfer Initiative (NTI) courses.

### **Project Goals**

- To ensure NTI course objectives/outcomes are used in NTI courses
- To establish a course level assessment process

### Process

- Include NTI approved course objectives/student learning outcomes in the syllabus
- Document how course outcomes are measured
- Set an expectation (percentage) for each outcome
- Document results for each outcome

Two full-time Introduction to Sociology faculty and 237 students on the McCook and North Platte campuses participated in the pilot project. Click **here** for the SOCI 1010 Introduction to Sociology assessment matrices.

Results						
Course Outcome	Instructor 1 Outcome Met: Y Not Met: N	Instructor 2 Outcome Met: Y Not Met: N	Narrative Summary			
Use critical thinking and commu- nication skills when examining social issues and diverse popula- tions that exist within society	Y	Y	I would like to incorporate more of a global perspective in coming semesters			
Demonstrate an understanding of the role theoretical perspectives play in analyzing society and changes that occur within society	Y	Y	Two of the papers I have historically assigned (social location and Gattaca social caste/class reflections) will be			
Use research skills to apply socio- logical concepts and principles in the evaluation of societal events and their effects on human popu- lations	Y	Y	completed as in-class activities. I've decided to do this for three reasons - 1) because I feel the same learning outcomes can be realized, 2) to al- low students to develop teamwork skills needed in future careers, 3) to			
Compare and contrast the effect that basic sociological concepts have on human behavior includ- ing: culture, society, social struc- ture, socialization, social institu- tions and social groups	Y	Y	offer the opportunity to discuss is- sues with people who have poten- tially vastly different views (encouraging double consciousness) Overall, students enrolled in SOCI 1010 are meeting faculty expec-			
Compare and contrast social is- sues from a global and national perspective	Y	Y	tations based on course outcomes.			

BIOS 1010 General Biology

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Demonstrate and explain scientific theories and methodologies.	Students were given a primary research article. They were asked to identify and explain the research question, hypothesis, variables, methodology, results, & conclusions. They were given the article the first day of class, and then again at the end of the semester.	From a 10 point rubric, students were predicted to earn an average of <b>4</b> at the beginning of the semester, and earn an average of at least <b>7</b> when repeating the assessment at the end of the semester.	When given the article on the first day of class, students scored and average of <b>4.2</b> <b>out of 10.</b> When given the same article to assess at the end of the semester, they averaged a <b>6.19</b>	Students improved by an average of <b>19.9%</b> , and came close the expectation of earning an average score of 7 or better. I will review the questions and rubric for this exercise to see where it can be improved.
Describe the characteristics common to living things, and the differences among organism groups in the domain/ kingdom classification system	Students completed a department- developed pre/post test to determine prior knowledge level regarding organism biology. This was done by administering the exam at the beginning of the semester, and then again at the end of the semester.	Expected outcome on the pretest was an average of <b>40%.</b> The expected average at the end of the semester was at least <b>55%</b> average (at least 15% improvement).	The pretest score was an average of <b>44.3%</b> . The posttest score was an average of <b>62.71%</b> .	Students exceeded the posttest goal, demonstrating a proficient knowledge of biological classification and other concepts explored in the exam.
Demonstrate a working knowledge of plant, animal and prokaryotic cell structure and function.	Students completed a capstone lab exercise where they examined the impact of osmosis on both living and artifical cells.	The target for this exercise was for the class to achieve at least a <b>70%</b> average on each of the lab's three experiments.	Students conducted 3 cell function experiments, using blood cells, plant cells, and artificial cells. The average score on each of these was <b>84.8%</b>	Students achieved the target goal. Continue this exercise next semester.
Explain the chemical basis of life, including atomic and molecular structure, overview of metabolic pathways, molecular basis of genetic material and protein synthesis.	Students wrote a detailed research paper explaining their osmosis experiment, how molecules move in and out of cells and why it is essential to life.	The target for this research paper was students to average at least <b>35</b> points out of a <b>50</b> point rubric. The rubric was designed to follow the criteria of professional journal articles.	The class average on the osmosis research paper was a <b>76.6%.</b>	Students achieved the target goal. Continue this exercise next semester.
Describe the genetic principles of Mendelian inheritance, meiosis, mitosis, chromosome structure, mutagenesis, and concepts of modern biotechnology	10 questions from Exam #3 (which covers cell division, genetics, and biotechnology) were chosen to evaluate students' understanding of these concepts	The target for this evaluation was for students to average at least 7/10 correct on these genetics questions to show mastery of the material.	The class average on the selected genetics, mitosis, and biotech questions was 6.2.	Students did not meet the target goal of proficiency in the selected questions. I will examine which questions were missed by the majority of students so that I can evaluate which topics need more attention during lecture and lab time.

BIOS 1010 General Biology

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Explain the interactions and adaptations of plants and animals within their respective ecosystems and biosphere	10 questions from Exam #5 (which covers ecology) were chosen to evaluate students' understanding of these concepts	The target for this evaluation was for students to average at least <b>7/10</b> correct on these genetics questions to show mastery of the material.	Students scored an average of <b>7.8/10</b> on the selected questions.	Students exceeded the target of scoring at least <b>7/10</b> on questions relating to ecology. Maintain current approach to teaching these topics
Describe the theories of biological/scientific evolution and the genetic, morphological, fossil, and historical evidence supporting these theories.	10 questions from Exam #4 (which covers evolution) were chosen to evaluate students' understanding of these concepts	The target for this evaluation was for students to average at least <b>7/10</b> correct on these genetics questions to show mastery of the material.	Students score an average of <b>6.1/10</b> on the selected questions.	Students did not meet the target of scoring at least <b>7/10</b> on questions relating to evolution. Instructor will re- xamine the questions to determine if they accurately reflect the material learned in class, and will reivew lecture material to look for ways to improve students' understanding of the concepts.

**BIOS 1010 General Biology** 

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Demonstrate and explain scientific theories and methodologies.	Students are given a short review of research in a biological discipline. Students are asked to identify the – Research Question, Hypothesis, Independent - Dependent, and Control variables, type of data, and the Conclusion. Students also complete a written article review assignment designed to retrieve, review and critically analyze an original research manuscript of their choice that they retrieve from a scientific journal.	From the questions regarding the review of the biological research reading, students are expected to average at least <b>70%</b> correct answers. All students (100% completion) are expected to retrieve, provide a written review and critical analysis of an original research article.	In the review of the biological research reading, students averaged a score of 5 out of <b>7</b> or <b>71%</b> . Thirty-three out of thirty-eight students ( <b>87%</b> ) successfully completed the written review and critical analysis of an original research article assignment.	Types of data - Quantitative vs qualitative data was most often missed, followed by independent/dependent variable identification. Goal is to emphasize this concept to increase number of correct responses
Describe the characteristics common to living things, and the differences among organism groups in the domain/ kingdom classification system		Expected outcome is an overall class improvement of <b>15%</b> on the Pre/Post test assessment and an overall average of <b>50%</b> on exam 1.	The overall class average of students score on the pre test was <b>42.4%</b> . The overall class average of the students score on the post test was <b>57.6%</b> which is a <b>15.2%</b> increase. The overall class average on exam 1 was 76%.	

BIOS 1010 General Biology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Demonstrate a working knowledge of plant, animal and prokaryotic cell structure and function.	Students complete the Bio- Rad algae bead lab exercise to measure the rate of Photosynthesis vs Cellular Respiration in Algae cells. This is also assessed during the faculty developed Pre/Post test. Students also complete cell structure and function lab exercises.	An average of at least 70% is expected on the Algae Bead and cell structure and function lab reports. A <b>15%</b> increase in the Post test score is expected.	The overall class average of students score on the pre test was <b>42.4%.</b> The overall class average of the students score on the post test was <b>57.6%</b> which is a <b>15.2%</b> increase.	Currently still in the process of averaging and analyzing algae bead lab. Algae lab Data will be added and included in this data ASAP
Explain the chemical basis of life, including atomic and molecular structure, overview of metabolic pathways, molecular basis of genetic material and protein synthesis.	Students complete the Bio- Rad algae bead lab exercise to measure the rate of Photosynthesis vs Cellular Respiration in Algae cells. This is also assessed during the faculty developed Pre/Post test and Exam 3. Students are also expected to complete several labs such as an enzyme lab, organic molecule and pH lab.	An average of at least 70% is expected on the Algae Bead lab report and on the other related labs. An average of 50% is expected on exam 3. A 15% increase in the Post test score is expected.	The overall class average of students score on the pre test was 42.4%. The overall class average of the students score on the post test was 57.6% which is a 15.2% increase. The overall class average on exam 3 was 74%.	
Describe the genetic principles of Mendelian inheritance, meiosis, mitosis, chromosome structure, mutagenesis, and concepts of modern biotechnology	This is assessed during the Pre/Post test and in Exam 3 and/or 4 of the class. Students also complete labs regarding Mendelien inheritance, meiosis, mitosis and DNA isolation/technology		The overall class average of students score on the pre test was 42.4%. The overall class average of the students score on the post test was 57.6% which is a 15.2% increase. The overall class average on exam 4 was 71%.	

BIOS 1010 General Biology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comments/Notes
Explain the interactions and adaptations	Students complete a	An average of at least 70% is	The overall class average of students score on	The Biome worksheet was completed in
of plants and animals within their	worksheet over the major	expected on the Biome	the pre test was 42.4%. The overall class	class, as a group while watching the
respective ecosystems and biosphere	Biomes of the Earth and the	Worksheet. A <b>15%</b> increase in the	average of the students score on the post test	"Pole to Pole" video.
	Biotic/Abiotic factors found	Post test score is expected.	was 57.6% which is a <b>15.2%</b> increase.	
	in each Biome. This is also			
	assessed during the Pre/Post			
	test and in Exam 4 of the			
	class.			
Describe the theories of	This is assessed during the	An average of at least 50% is	The overall class average of students score on	
biological/scientific evolution and the	Pre/Post test and in Exam 4	expected on the class exam. A	the pre test was 42.4%. The overall class	
genetic, morphological, fossil, and	of the class.	15% increase in the Post test score	average of the students score on the post test	
historical evidence supporting these		is expected.	was 57.6% which is a <b>15.2%</b> increase. The	
theories.			overall class average on exam 4 was 71%.	

Fall 2017 CHEM 1090 General Chemistry				
NTI Course Assessment Pilot Pro Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Calculate one quantity from another by use of dimensional analysis		All students will be able to complete lab	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves conversion factors/stoichiometry. (Chapters 1 & 3 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	Tests that involve conversion factors/stoichiometry. (Specific questions used on Exams 1 & 2)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #21 from exam one was used as the target question: Goal met: 89% of students completed the question 11% completed the question 60% or greater.	
Describe the structure of an atom.	Lab experiments that involve atomic structure. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves atomic structure. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	Tests that involve atomic structure. (Specific questions used on Exam 1)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #8 from exam one was used as the target question: Goal met: 92% of students completed the question completely. 8% completed the question 60% or greater.	

Instructor #2 Course Outcome	Measurements	Target / Expectation	Actual Results	Commont
Explain periodic trends.	Lab experiments that involve periodic trends. (All labs in general) Homework that involves periodic trends. (Chapter 8	experiments on their own or in a group with a grade of 90% or higher. All students will be able to complete HW assignments without requiring "severe" help.	All students that attended labs were able to complete labs with	Comment
	Tests that involve periodic trends. (Specific questions	completion of "60 %" or higher, with 80% of the student receiving a completion level of	Question #25 from exam three was used as the target question: Goal met: 98% of students completed the question completely. 2% completed the question 60% or greater.	
Describe the changes as energy interacts with an atom.	thermodynamics. (All labs in	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved	
	Homework that involves thermodynamics. (Chapter 6	All students will be able to complete HW assignments without requiring "severe" help.	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
		All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of	Question #7 from exam three was used as the target question: Goal met: 82% of students completed the question completely. 18% completed the question 60% or greater.	

Fall 2017 CHEM 1090 General Chemistry I NTI Course Assessment Pilot Pro				
Instructor #2 Course Outcome	Measurements	Target / Expectation	Actual Results	Comment
Course Outcome Compare and contrast covalent and ionic bonding.	Lab experiments that involve	Target/ Expectation All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher. All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside	All students that attended labs were able to complete labs with	comment
		of class.) All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12 & #13 from exam one were used as the target question2: Goal met: 85% of students completed the question completely. 15% completed the question 60% or greater	
Draw Lewis structures for atoms, ions, and molecules.	Lab experiments that Lewis Structures. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves Lewis Structures. (Chapters 9 & 10 in textbook)	All students will be able to complete HW	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve Lewis Structures. (Specific questions used on Exam 4)	,	Questions #12, #13, & #14 from exam four were used as the target questions: Goal met: 80% of students completed the question completely. 20% completed the question 60% or greater.	

Instructor #2 Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Determine the shape of a molecule.		All students will be able to complete lab	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves VSEPR Theory. (Chapter 10 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	, , , , ,	completion of "60 %" or higher, with 80% of the student receiving a completion level of	Question #15 from exam four was used as the target question: Goal met: 81% of students completed the question completely. 19% completed the question 60%	
Pure and Applied Chemistry (IUPAC) names and chemical formulas of compounds.	Lab experiments that focus on chemical naming. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves chemical naming. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	factors/stoichiometry.	completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12-#16 from exam one were used as the target question2: Goal met: 94% of students completed the question completely. 6% completed the question 60% or greater.	

Fall 2017 CHEM 1090 General Chemistry I NTI Course Assessment Pilot Pro Instructor #2	oject: Semester 1			
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Describe chemical reactions by symbolic, numeric, and verbal means.	on chemical reactions. (All	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	reactions. (Specific questions	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #5-8 from exam two were used as the target questions: Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.	
Predict the products of simple reactions.	on chemical reactions. (All	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help.	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	reactions. (Specific questions	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.	

CHEM 1100 General Chemistry II

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Calculation solution concentrations	Lab Work	100%	88.89%	All but one student this semester was able to perform solution concentration calculations well and reliably over the semester
Apply principles of colligative properties	It was covered in lecture and tested on Exam 1 and the final	100%	44.44% up from 0%	While I was pleased to see the increase on the mastery of this I was disheartened to see that most of the students missed this problem.
Apply principles of chemical kinetics	Lab and exams	100%	65.56% on Exam 1	On the labs the students did well but struggled to master the concepts that were discussed in class. I was able to see on the exam that some students 'got it' while other students did not. The students who missed this problem on the exam did not ask questions about it during class or lab nor did they come to office hours.
Perform calculations involving chemical equilibria	Exam 2	100%	84.40%	All but one student mastered this question with a B or better.
Predict reaction outcomes based on chemical equilibria and Le Chatlier's principle	Lab and exam 2	100%		The students were able to use the color change of the reaction in lab to say what was happening but tended to struggle on the prediction just looking at an equation. I will revise the question on Exam 2 so that it is clearer for students which might help the evidence of their mastery of the concept

CHEM 1100 General Chemistry II

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	<b>Actual Results</b>	Comment
Demonstrate an understanding of the properties of acids and bases, including pH, buffers, acid and based equilibria in weak acids and bases and acid-base equilibrium constants	Exam 2	100%		All the students were able to calculate pH while some struggled in calculating the equilibrium concentrations.
Describe the relationships between enthalpy, entropy, and Gibb's free energy	Exam 3	100%	•	There was a definite mix of understanding on these concepts. The math portion was relatively easy.
Demonstrate an understanding of oxidation-reduction reactions in terms of electron transfer	Exam 3	100%		All students understood how the electrons where transferring between the anode and the cathode but not all the students (2 of 9) could properly identify the anode and the cathode. 77.7% could properly draw a voltaic cell.
Explain the electrical nature of reactions and electrochemical cells in terms of oxidation-reduction reactions	Lab-Experiment #26	100%	about 55.56%	I don't have the labs, I gave them back to students, but most of them did quite well. They enjoyed being able to see

Spring 2018 CHEM 1100 General Chemistry				
NTI Course Assessment Pilot Pro Instructor #2	oject. Semester Z			
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Calculate one quantity from another by use of dimensional analysis	Lab experiments that involve conversion factors/stoichiometry. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves conversion factors/stoichiometry. (Chapters 1 & 3 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve conversion factors/stoichiometry. (Specific questions used on Exams 1 & 2)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #21 from exam one was used as the target question: Goal met: 89% of students completed the question completely. 11% completed the question 60% or greater.	
Describe the structure of an atom	Lab experiments that involve atomic structure. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves atomic structure. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	Tests that involve atomic structure. (Specific questions used on Exam 1)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #8 from exam one was used as the target question: Goal met: 92% of students completed the question completely. 8% completed the question 60% or greater.	

Instructor #2		Township	A short Describe	0
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Explain periodic trends.	-	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves periodic trends. (Chapter 8 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve periodic trends. (Specific questions	of class.) All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #25 from exam three was used as the target question: Goal met: 98% of students completed the question completely. 2% completed the question 60% or greater.	
Describe the changes as energy interacts with an atom	thermodynamics. (All labs in	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved	
	Homework that involves thermodynamics. (Chapter 6 in textbook)	All students will be able to complete HW assignments without requiring "severe" help.	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	Tests that involve thermodynamics. (Specific	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of	Question #7 from exam three was used as the target question: Goal met: 82% of students completed the question completely. 18% completed the question 60% or greater.	

Spring 2018 CHEM 1100 General Chemistry II NTI Course Assessment Pilot Project: Semester 2 Instructor #2					
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment	
Compare and contrast covalent and ionic bonding	-	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.		
	Homework that involves bonding. (Chapter 2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.		
	Tests that involve bonding. (Specific questions used on Exam 1)	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12 & #13 from exam one were used as the target Goal met: 85% of students completed the question completely. 15% completed the question 60% or greater		
Draw Lewis structures for atoms, ions, and molecules	Lab experiments that Lewis Structures. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.		
	Homework that involves	All students will be able to complete HW	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.		
	Tests that involve Lewis Structures. (Specific questions used on Exam 4)	All students pass the target question(s) with a	Questions #12, #13, & #14 from exam four were used as the target questions: Goal met: 80% of students completed the question completely. 20% completed the question 60% or greater.		

Spring 2018 CHEM 1100 General Chemistry I NTI Course Assessment Pilot Pro				
Instructor #2				
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Determine the shape of a molecule.		All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
		All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Question #15 from exam four was used as the target question: Goal met: 81% of students completed the question completely. 19% completed the question 60%	
Determine correct International Union of Pure and Applied Chemistry (IUPAC)names and chemical formulas of compounds	•	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	2 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	factors/stoichiometry.	All students pass the target question(s) with a completion of "60 %" or higher, with 80% of the student receiving a completion level of "70%" or higher.	Questions #12-#16 from exam one were used as the target Goal met: 94% of students completed the question completely. 6% completed the question 60% or greater.	

Spring 2018 CHEM 1100 General Chemistry I NTI Course Assessment Pilot Pro Instructor #2	oject: Semester 2			
Course Outcome	Measurements	Target/ Expectation	Actual Results	Comment
Describe chemical reactions by symbolic, numeric, and verbal means	Lab experiments that involve chemical reactions. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involves chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help. ("Severe" being defined as requiring 30 minutes or more help from instructor outside of class.)	No students required "severe" help. However, some students did not turn in homework assignments and received a "O" for the assignment.	
	reactions. (Specific questions	completion of "60 %" or higher, with 80% of the student receiving a completion level of	Questions #5-8 from exam two were used as the target questions: Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.	
Predict the products of simple reactions	Lab experiments that involve chemical reactions. (All labs in general)	All students will be able to complete lab experiments on their own or in a group with a grade of 90% or higher.	All students that attended labs were able to complete labs with the 90% or higher grade being achieved.	
	Homework that involve chemical reactions. (Chapter 5 in textbook)	All students will be able to complete HW assignments without requiring "severe" help.	No students required "severe" help. However, some students did not turn in homework assignments and received a "0" for the assignment.	
	reactions. (Specific questions		Goal met: 88% of students completed the question completely. 12% completed the question 60% or greater.	

Introduction to Sociology

### NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurement	Target/ Expectation	Actual Results	Comments/Notes
Use critical thinking and communication skills when examining social issues and diverse populations that exist within society.	Weekly reflection assignments, in-class activities (develop sociological questions, roles/statuses activity, theory application, deviance adoption activity), exam questions (scenario multiple choice questions, essay questions) and papers (social location essay, observation, Gattaca social caste/class reflection and public meeting reflection). Weekly reflections where students apply course content to supplemental materials, in-class activities and discussions.			
Demonstrate an understanding of the role theoretical perspectives play in analyzing society and changes that occur within society.	In-class theory application activity, four core theories are discussed with each chapter/content area and included on each exam. In-class activities where students determine which theory best applies to sociological questions, application within writing assignments, test questions.	Identify strengths/weaknesses with 4 core theoretical perspectives, ability to choose which applies best to situations		
Use research skills to apply sociological concepts and principles in the evaluation of societal events and their effects on human populations.	Watch Milgram experiment video, class discussion, sociological observation paper (do actual observation) and test questions. Class discussion, test questions, sociological observation writing assignment	Identify strengths/weaknesses of both qualitative and quantative measures.	Students were able to identify problematic research design.	
Compare and contrast the effect that basic sociological concepts have on human behavior including: culture, society, social structure, socialization, social institutions and social groups.	We do this daily in class through lecture and discussion. Assessment of student understanding is incorporated in every assignment (weekly reflections, papers, and exams) Class discussion, test questions, weekly reflections, writing assignments	Understand the power of the social world and the complexities	By the end of the semester 90-95% of my students had a grasp on this skill. I would estimate that 85-90% have a beginning mastery of the skill	

Introduction to Sociology

NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurement	Target/ Expectation	Actual Results	Comments/Notes
Investigate the powerful influence that	We do this daily in class through lecture and discussion.	Understand the power of the	85-90% of assessments	
society has on human thoughts and	Assessment of student understanding is incorporated in	social world and the	received from students	
behavior.	every assignment (weekly reflections, papers, and	complexities	displayed mastery of this	
	exams)		skill.	
	Class discussion/activities, test questions, weekly			
	reflections, writing assignments			
Compare and contrast social issues from a	Discussions on how various sociological phenomenon	Realize that culture is the	Students have a beginning	I would like to incorporate more of a
global and national perspective.	play out in the US v. other countries and their	lens we use to interact with	grasp on a global	global perspective in coming
	interrelationships are the standard. Assessment is	the world and that	perspective. National	semesters.
	conducted through class discussion and test questions.	everyone's lens has a	perspective was stronger.	
		different shade due to their		
	Class discussion, test questions	own culture and		
		socialization.		

Introduction to Sociology

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	<b>Actual Results</b>	Comments/Notes
Use critical thinking and communication skills when examining social issues and diverse populations that exist within society.	Final Paper Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor. Class discussion in which student must analyze and critique a given concept and participation points are awarded for this discussion accordingly.	Students will average a 70% on the given measure	77.64%	Critique of the novel <i>Evicted</i> (Actual results reflects students who completed and submitted paper)
Demonstrate an understanding of the role theoretical perspectives play in analyzing society and changes that occur within society.	Research paper; Online discussion forum; Weekly paper/assignment Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor	Students will average a 70% on the given measure	93.40%	Assignment #2 (Thomas Theorem & Socialization) (Actual results reflects students who completed and submitted paper)
Use research skills to apply sociological concepts and principles in the evaluation of societal events and their effects on human populations.	Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor Research paper; Online discussion forum; Weekly paper/assignment	Students will average a 70% on the given measure	87.54%	Assignment #3 (Deviance Experiment) (Actual results reflects students who completed and submitted paper)

Introduction to Sociology

## NTI Course Assessment Pilot Project: Semester 2

Course Outcome	Measurements	Target/ Expectation	<b>Actual Results</b>	Comments/Notes
Compare and contrast the effect that basic sociological concepts have on human behavior including: culture, society, social structure, socialization, social institutions and social groups.	Research paper; Online discussion forum; Weekly paper/assignment Weekly writing assignment scored for content and critical thinking based upon a rubic by the instructor	Students will average a 70% on the given measure	92.84%	Assignment #1 (Culture and Symbolism) (Actual results reflects students who completed and submitted paper)
Investigate the powerful influence that society has on human thoughts and behavior.	Research paper; Online discussion forum; Weekly paper/assignment Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor	Students will average a 70% on the given measure	86.06%	Assignment #5 (Religion & Family) (Actual results reflects students who completed and submitted paper)
Compare and contrast social issues from a global and national perspective.	Research paper; Online discussion forum; Weekly paper/ assignment Weekly writing assignment scored for content and critical thinking based upon a rubric by the instructor. Complete interactive activities and apply them in classroom discussions and weekly writing assignments.	Students will average a 70% on the given measure	94.01%	Assignment #4 (Global Stratification & Social Stratification) (Actual results reflects students who completed and submitted paper)