



# 2013-2014 Assessment Report

# DRAFT

---

*Vision Statement: East Central College will be a dynamic, innovative college of choice*

**Prepared by the Office of Instruction**

## INTRODUCTION

East Central College organizes its assessment activities through various offices, departments and committees, as indicated below. Now in its fifth edition, the **2013-2014 ECC Assessment Report** is the result of assessment, division and department planning and the establishment of a reporting mechanism and timeline. Reporting formats continue to be at the discretion of the departments and faculty.

This publication, representing information from the 2013-2014 academic year, features the following from a variety of academic programs:

- Program reviews
- Annual updates
- Self-studies
- Team reports

It also includes information on various aspects of student services and learning resources.

In 2012, the Assessment Committee developed a program review process. The committee incorporated feedback from faculty and staff alike to improve existing data reporting templates and the scope and depth of the reviews.

For easy reference, the Table of Contents lists the various reporting units and structure of the publication.

# TABLE OF CONTENTS

<b>SECTION 1: ASSESSMENT PLANNING AND REPORTING</b>	<b>5</b>
The Assessment Structure.....	5
Program Review.....	6
Program Accreditation.....	7
<b>SECTION 2: STUDENT INFORMATION</b>	<b>10</b>
2013 Community College Survey of Student Engagement (CCSSE).....	11
2014 ECC Advising Survey Report.....	19
2014 Student General Education Requirement Survey.....	26
<b>SECTION 3: COMMON LEARNING OBJECTIVES</b>	<b>34</b>
Overview.....	34
Assessment Plan.....	35
<b>SECTION 4: ACADEMIC DIVISION REPORTS</b>	<b>37</b>
<b>Business, Education, Social Science &amp; Technology</b> .....	<b>38</b>
Business.....	39
Computer Information Systems.....	40
History/Political Science.....	49
Physical Education.....	50
Psychology Assessment Plan 2012-2015.....	55
Psychology and Sociology.....	58
<b>English, Foreign Language &amp; Philosophy</b> .....	<b>60</b>
Developmental Writing (Program Review).....	61
English.....	71
Journalism.....	75
Literature (Program Review).....	81
Reading.....	88
<b>Fine &amp; Performing Arts</b> .....	<b>91</b>
Communications.....	92
Fine Art.....	93
Music.....	97
<b>Mathematics &amp; Physical Science</b> .....	<b>102</b>
Industrial Engineering Technology.....	103
Mathematics.....	110
Physics and Transfer Engineering.....	118
Transfer Engineering.....	120
<b>Nursing &amp; Allied Health</b> .....	<b>124</b>
Nursing.....	125
Occupational Therapy Assistant.....	129
Paramedic Technology (Emergency Medical Services) .....	130
Radiological Technology.....	132
Respiratory Care.....	133

## TABLE OF CONTENTS (continued)

<b>Science</b> .....	<b>136</b>
Biology and Environmental Science (Program Review).....	137
Chemistry.....	152
Health Science and Biology (Program Review).....	159
<b>SECTION 5: PROGRAM REVIEW DATA RESULTS</b>	<b>179</b>
Business, Education, Social Science and Technology.....	180
English, Foreign Language & Philosophy.....	189
Fine & Performing Arts.....	191
Mathematics and Physical Science.....	195
Nursing and Allied Health.....	199
Science.....	201
<b>SECTION 6: THE LEARNING CENTER &amp; TESTING CENTER</b>	<b>203</b>
Services Survey Results (Facilities).....	203
TLC/TC Visits and Reasons.....	204
Services Survey Results (Tutoring Services).....	208
Services Survey Results (Testing Center) .....	210
<b>SECTION 7: THE ECC WRITING PROJECT</b>	<b>212</b>
Project Declaration.....	212
Project Exit Questions.....	215
<b>SECTION 8: SUMMARY</b>	<b>219</b>



# **SECTION 1: ASSESSMENT PLANNING AND REPORTING**

## **The Assessment Structure**

The Assessment Committee is a standing committee chaired by the chief academic officer (vice president of curriculum and instruction). It is responsible for:

- Reviewing and oversight of institutional assessment plan and efforts.
- Making recommendations to division and/or programs.
- Maintaining the institutional assessment plan.
- Communicating to divisions on matters related to assessment.

### ***Assessment and Planning Statement of Mission and Purpose***

East Central College serves a diverse community of learners. It is the mission of the committee charged with assessment to improve learning. As an ongoing and fluid process, the assessment program will:

- Ensure that learning expectations are clearly stated.
- Assess what is important to the learner and institution.
- Use assessment and effectiveness data efficiently and responsibly.
- Be timely in its reporting.
- Inform decision makers.
- Be evaluated and evaluative.
- Improve performance institutionally.
- Be strategic and responsive.

### ***Institutional Research, Assessment & Planning (IRAP) Office***

This office facilitates the collection and interpretation of institutional and assessment data to support informed decision-making at all institution levels for the purpose of improving the quality of programs and services at ECC. The IRAP Office reports directly to the president.

### ***Academic Divisions and Departments***

Each academic unit of the college maintains an assessment plan. These plans, together with course syllabi, outline the broad learning objectives and detail of specific learning outcomes. Further, plans detail data gathering and reporting cycles.

Together with the division/department planning documents, these tools guide faculty and staff in curriculum design and modification, testing and other course decisions. Assessment plans and division/department planning documents are maintained on file in the Office of Instruction, the division chair and the campus assessment Web page.

The Assessment Plan is maintained, modified and updated by the Assessment Committee. The plan reflects the institutional goals in assessing student learning and other institutional purposes.

### ***Departmental Academic Unit Assessment Plans***

Units of the college adopt and maintain assessment plans appropriate to their program of study, curriculum, academic discipline or function. Collectively, these assessment plans guide the efforts of faculty and staff in measuring student learning, analyzing effectiveness and improving college operations. Information regarding these assessment plans can be found on the college's website [www.eastcentral.edu](http://www.eastcentral.edu) or on file in the appropriate division office. Plans are maintained and reviewed regularly. Not all units will report each cycle. Some academic units, because of the volume of offerings and the

nature of the sequence of courses (i.e. English and mathematics) will report annually on varying aspects of the course sequence, the program or learning support.

### **Program Review**

Reviews of career/technical and academic programs are conducted on a three-to-five-year rotation. As part of that process, faculty and staff within the program submit a self-study and the review team chair submits a follow-up report.

Data results from 2013 and 2014 are included in Section 5 of this document. The 2013-2015 Program Review Schedule is below:

<b>Program Review Schedule 2013-2015</b>	
<b><i>Timeline</i></b>	<b><i>Academic Discipline(s)/Career Technical Program</i></b>
<b>2013 Schedule: Start date January 2013</b>	<p><u>Nursing &amp; Allied Health</u>: Rad Tech/Respiratory Care  <u>English &amp; Humanities</u>: Developmental English  <u>Science</u>: General Studies Biology courses  <u>Mathematics</u>: Physical Science  <u>Fine and Performing Arts</u>: Communications/Theatre  <u>BEST</u>: Business Technology and Economics  <u>Career and Technical</u>: Culinary Arts</p>
<b>2014 Schedule: Start date January 2014</b>	<p><u>Nursing &amp; Allied Health</u>: Other Allied Health fields  <u>English &amp; Humanities</u>: Literature Offerings  <u>Science</u>: Biotechnology  <u>Mathematics</u>: Teacher Preparation Mathematics  <u>Fine and Performing Arts</u>: Performance Schedule/Activities  <u>BEST</u>: Physical Education and Education AAT  <u>Career and Technical</u>: Precision Machining</p>
<b>2015 Schedule: Start date January 2015</b>	<p><u>Nursing &amp; Allied Health</u>: RN Bridge Programs  <u>English &amp; Humanities</u>: Journalism  <u>Science</u>: Chemistry/Chemical Technology  <u>Mathematics</u>: Calculus Sequence  <u>Fine and Performing Arts</u>: Music  <u>BEST</u>: History/Pol Science and HIT  <u>Career and Technical</u>: FRCC Partner Programs</p>

## Institutional and Program Accreditations

### ***Institution Accreditation***

East Central College operates under the guidelines of state, regional and national accreditation agencies. It is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (NCA/HLC). Details are available through:

*North Central Association The Higher Learning Commission*  
 230 South LaSalle Street, Suite 7-500  
 Chicago, Ill. 60604-1411  
 Phone: (800) 621-7440/(312) 263-0456 ~ Fax: (312) 263-7462  
[www.ncahlc.org](http://www.ncahlc.org) ~ [info@hlcommission.org](mailto:info@hlcommission.org)

ECC is also a participant in the Academic Quality Improvement Program (AQIP). More information is available at:

[http://www.eastcentral.edu/faculty/ldrship\\_initiatives/academicimprove/index.php](http://www.eastcentral.edu/faculty/ldrship_initiatives/academicimprove/index.php)

In addition, the college is recognized and operates under the coordination of the Missouri Department of Higher Education. ECC is a member of both the American Association of Community Colleges (AACC) and the Missouri Community College Association (MCCA).

### ***Academic Program Accreditation***

East Central College operates certain programs and services that are fully accredited under national agency requirements, as outlined in the following chart.

<b><u>Completed Accreditations</u></b>	
<b><i>Program</i></b>	<b><i>Accrediting Organization</i></b>
Culinary Arts	American Culinary Federation (ACF)
Health Information Management	American Health Information Management Association (AHIMA)
Industrial Engineering Technology	Association of Technology, Management and Applied Engineering (ATMAE)
Occupation Therapy Assistant (MHPC)	Accrediting Council for Occupational Therapy Education (ACOTE)
Precision Machining	National Institution for Metalworking Skills (NIMS)
Radiologic Technology (joint program)	Joint Review Commission for Education in Radiologic Technology (JRCERT)
Respiratory Care (joint program)	Commission on the Accreditation of Allied Health Education Programs (CAAHEP)
The Learning Center	College Reading and Learning Association (CRLA)

Furthermore, the following programs are currently in the process towards accreditation through their respective agencies:

<b><u>Accreditations In Process</u></b>	
<b><i>Program</i></b>	<b><i>Accrediting Organization</i></b>
Early Childhood Education	National Association for the Education of Young Children (NAEYC)
Music	National Association of Schools of Music (NASM)
Art and Graphic Design	National Association of Schools of Art and Design (NASAD)
Nursing	National League of Nursing (NLN)
Computer Information Systems	Association of Technical, Management and Applied Engineering (ATMAE)
Business	Accrediting Council for Business Schools and Programs (ACBSP)
Theater	National Association of Schools of Theater (NAST)
Medical Assistant	Commission on Accreditation of Allied Health Education Programs (CAAHEP) and Medical Assisting Education Review Board (MAERB)
Developmental Mathematics	National Association for Development Education (NADE)
Dual Credit	National Alliance of Concurrent Enrollment Partnerships
The Learning Center	National Association for Development Education (NADE)

These accreditation programs ensure that work satisfactorily completed at ECC is fully valued by other colleges, universities, professional schools and state-governed professions. Where applicable to employers, licensure, certification and registration boards, a credential from an accredited program signifies adequate preparation for entry into the profession.

In addition, the following ECC programs carry full approval and operate under the regulations of these state and federal agencies as noted:

- **Nursing:** Missouri State Board of Nursing.
- **Paramedic Technology:** Missouri Bureau of Emergency Medical Services.
- **Education:** Department of Elementary and Secondary Education.

## SECTION 2: STUDENT INFORMATION

East Central College regularly participates in surveys and studies that measure student satisfaction, engagement and experience at the college. This section contains three such reports:

- 2013 Community College Survey of Student Engagement (Executive Summary)
- 2014 ECC Advising Survey Report
- 2014 Student General Education Requirement Survey

The first two reports can also be viewed in their entirety on the ECC website:

[http://www.eastcentral.edu/faculty/ldrship\\_initiatives/academicimprove/ECC\\_AQIP\\_Doc\\_Repository.php](http://www.eastcentral.edu/faculty/ldrship_initiatives/academicimprove/ECC_AQIP_Doc_Repository.php)

## 2013 Community College Survey of Student Engagement (CCSSE)



### Community College Survey of Student Engagement

East Central College

**2013 Key Findings**

#### **Table of Contents**

Key Findings: A Starting Point	2
Benchmarks of Effective Educational Practice	3
Aspects of Highest Student Engagement	4
Aspects of Lowest Student Engagement	5
2013 CCSSE Special-Focus Items	6
CCFSSE	8



## Key Findings: A Starting Point

The Key Findings report provides an entry point for reviewing results from your administration of the 2013 Community College Survey of Student Engagement (CCSSE). The report provides college-specific data in an easy-to-share format including benchmark comparisons between the college, top-performing colleges, and the CCSSE cohort. It also highlights aspects of highest and lowest student engagement at the college, as well as results from five of the CCSSE special-focus items on promising educational practices. Select faculty survey data are also highlighted.

### Promising Practices for Student Success

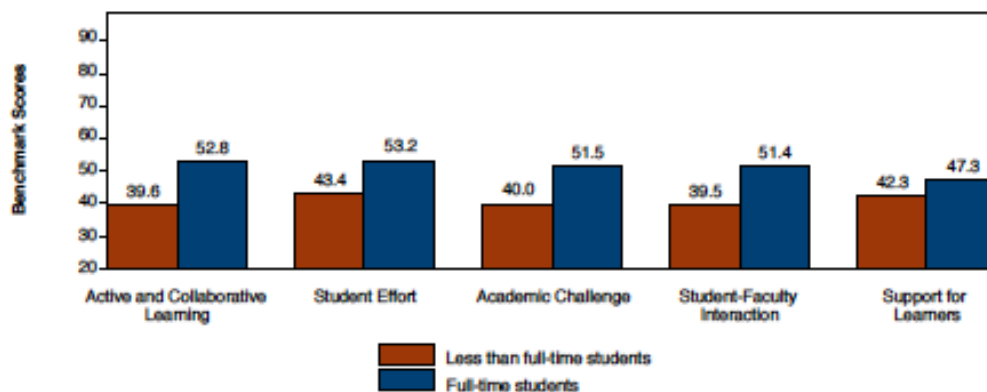
In each annual administration, CCSSE has included special-focus items to allow participating colleges and national researchers to delve more deeply into areas of student experience and institutional performance of great interest to the field. The 2013 special-focus items are part of an ongoing national research project focused on community college students' participation in a defined collection of promising practices for which there is emerging evidence of effectiveness in strengthening student learning, persistence, and attainment. This work will link data from the CCSSE special-focus items; related items on the faculty survey (CCFSSE), which explore the extent of faculty members' use of the identified promising practices in their teaching; and institutional data collected from the Community College Institutional Survey (CCIS) that address questions about how these promising practices are implemented across varied institutions.

This data collection will provide empirical confirmation of promising educational practices in community colleges, quantification of the extent to which those practices are part of the current experience of our students, and information about whether participation in these types of practices varies across subgroups of students. Ongoing data analysis will provide new evidence of how student participation in these practices is related to overall student engagement, academic progress, and college completion.

### Benchmark Overview by Enrollment Status

Figure 1 below represents your institution's CCSSE benchmark scores by students' enrollment status.

Figure 1







## Benchmarks of Effective Educational Practice

The *CCSSE* benchmarks are groups of conceptually related survey items that address key areas of student engagement. The five benchmarks denote areas that educational research has shown to be important to students' college experiences and educational outcomes. Therefore, they provide colleges with a useful starting point for looking at institutional results and allow colleges to gauge and monitor their performance in areas that are central to their work. In addition, participating colleges have the opportunity to make appropriate and useful comparisons between their performance and that of groups of other colleges.

Performing as well as the national average or a peer-group average may be a reasonable initial aspiration, but it is important to recognize that these averages are sometimes unacceptably low. Aspiring to match and then exceed high-performance targets is the stronger strategy.

Community colleges can differ dramatically on such factors as size, location, resources, enrollment patterns, and student characteristics. It is important to take these differences into account when interpreting benchmark scores—especially when making institutional comparisons. The Center for Community College Student Engagement has adopted the policy “Responsible Uses of *CCSSE* and *SENSE* Data,” available at [www.ccsse.org](http://www.ccsse.org).

*CCSSE* uses a three-year cohort of participating colleges in all core survey analyses. The current cohort is referred to as the 2013 *CCSSE* Cohort (2011-2013) throughout all reports.

### CCSSE Benchmarks

#### ★ Active and Collaborative Learning

Students learn more when they are actively involved in their education and have opportunities to think about and apply what they are learning in different settings. Through collaborating with others to solve problems or master challenging content, students develop valuable skills that prepare them to deal with real-life situations and problems.

#### ★ Student Effort

Students' own behaviors contribute significantly to their learning and the likelihood that they will successfully attain their educational goals.

#### ★ Academic Challenge

Challenging intellectual and creative work is central to student learning and collegiate quality. These survey items address the nature and amount of assigned academic work, the complexity of cognitive tasks presented to students, and the rigor of examinations used to evaluate student performance.

#### ★ Student-Faculty Interaction

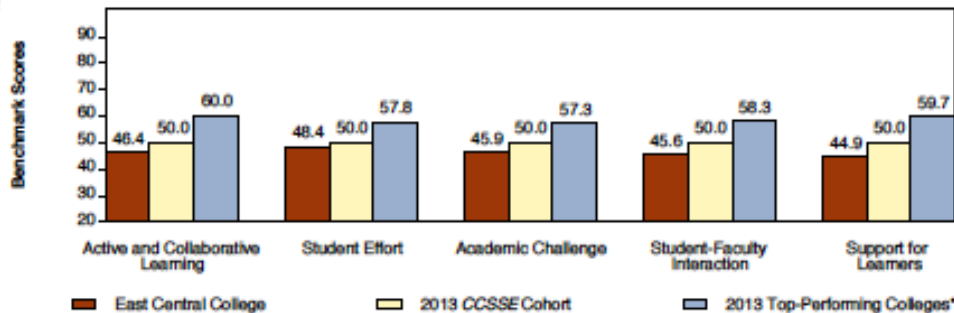
In general, the more contact students have with their teachers, the more likely they are to learn effectively and to persist toward achievement of their educational goals. Through such interactions, faculty members become role models, mentors, and guides for continuous, lifelong learning.

#### ★ Support for Learners

Students perform better and are more satisfied at colleges that provide important support services, cultivate positive relationships among groups on campus, and demonstrate commitment to their success.

For further information about *CCSSE* benchmarks, please visit [www.ccsse.org](http://www.ccsse.org).

Figure 2



\*Top-Performing colleges are those that scored in the top 10 percent of the cohort by benchmark.

Notes: Benchmark scores are standardized to have a mean of 50 and a standard deviation of 25 across all respondents. For further information about how benchmarks are computed, please visit [www.ccsse.org](http://www.ccsse.org).



## Aspects of Highest Student Engagement

Benchmark scores provide a manageable starting point for reviewing and understanding *CCSSE* data. One way to dig more deeply into the benchmark scores is to analyze those items that contribute to the overall benchmark score. This section features the five items across all benchmarks (excluding those for which means are not calculated) on which the college scored highest and the five items on which the college scored lowest relative to the 2013 *CCSSE* Cohort.

The items highlighted on pages 4 and 5 reflect the largest differences in mean scores between the institution and the the 2013 *CCSSE* Cohort. While examining these data, keep in mind that the selected items may not be those that are most closely aligned with the college’s goals; thus, it is important to review all institutional reports on the *CCSSE* online reporting system at [www.ccse.org](http://www.ccse.org).

Figure 3 displays the aggregated frequencies for the items on which the college performed most favorably relative to the 2013 *CCSSE* Cohort. For instance, 62.3% of East Central College students, compared with 60.1% of other students in the cohort, responded 5 to 10, 11 to 20, or more than 20 on item 6c. It is important to note that some colleges’ highest scores might be lower than the cohort mean.

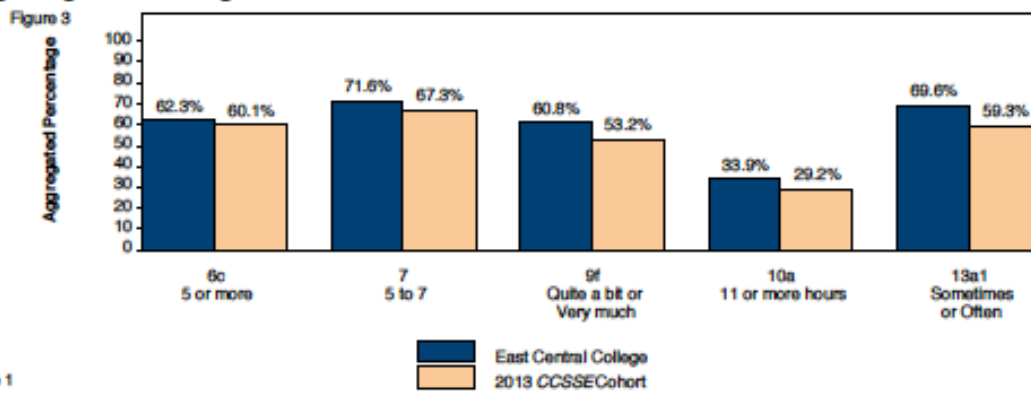


Table 1

Benchmark	Item Number	Item
Academic Challenge	6c	Number of written papers or reports of any length
Academic Challenge	7	Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college
Support For Learners	9f	Providing the financial support you need to afford your education
Student Effort	10a	Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)
Support For Learners	13a1	Frequency: Academic advising/planning

Notes:

- For item(s) 6, 5 to 10, 11 to 20, and more than 20 responses are combined.
- For item 7, 5, 6, and 7 responses on the 1 - 7 challenge scale are combined.
- For item(s) 9, quite a bit and very much responses are combined.
- For item 10a, 11 - 20, 21 - 30, and more than 30 responses are combined.
- For item(s) 13, sometimes and often responses are combined.



## Aspects of Lowest Student Engagement

Figure 4 displays the aggregated frequencies for the items on which the college performed least favorably relative to the 2013 CCSSE Cohort. For instance, 4.4% of East Central College students, compared with 7.2% of other students in the cohort, responded *often* or *very often* on item 4i. It is important to note that some colleges' lowest scores might be higher than the cohort mean.

Figure 4

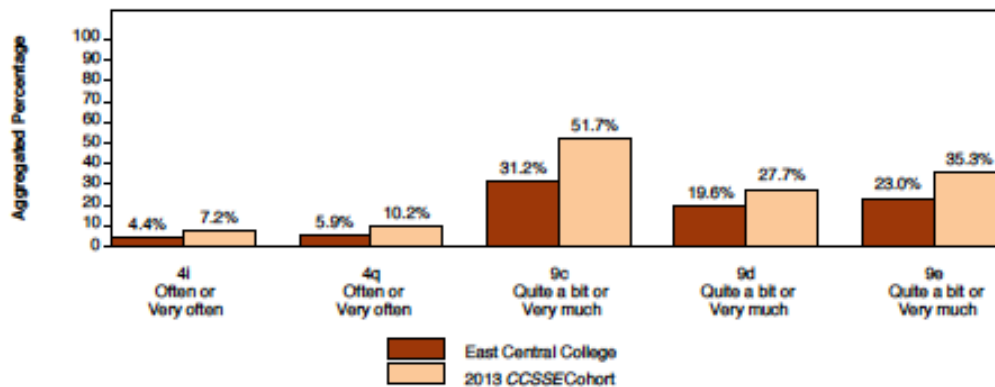


Table 2

Benchmark	Item Number	Item
Active and Collaborative Learning	4i	Participated in a community-based project as a part of a regular course
Student-Faculty Interaction	4q	Worked with instructors on activities other than coursework
Support For Learners	9c	Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
Support For Learners	9d	Helping you cope with your non-academic responsibilities (work, family, etc.)
Support For Learners	9e	Providing the support you need to thrive socially

Notes:

For item(s) 4 (except 4e), *often* and *very often* responses are combined.

For item(s) 9, *quite a bit* and *very much* responses are combined.



## 2013 CCSSE Special-Focus Items

The Center adds special-focus items to CCSSE each year to augment the core survey, helping participating colleges and the field at large to further explore fundamental areas of student engagement. The 2013 special-focus items continue to elicit new information about students' experiences associated with promising educational practices such as early registration, orientation, freshman seminars, organized learning communities, and student success courses. Frequency results from the first five promising practices items for your college and the CCSSE promising practices respondents are displayed across pages 6 and 7.

Figure 5: During the current term at this college, I completed registration before the first class session(s).

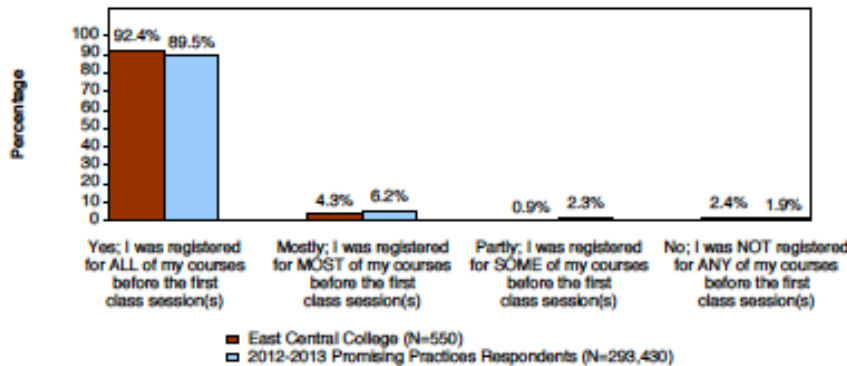


Figure 6: The ONE response that best describes my experience with orientation when I first came to this college is:

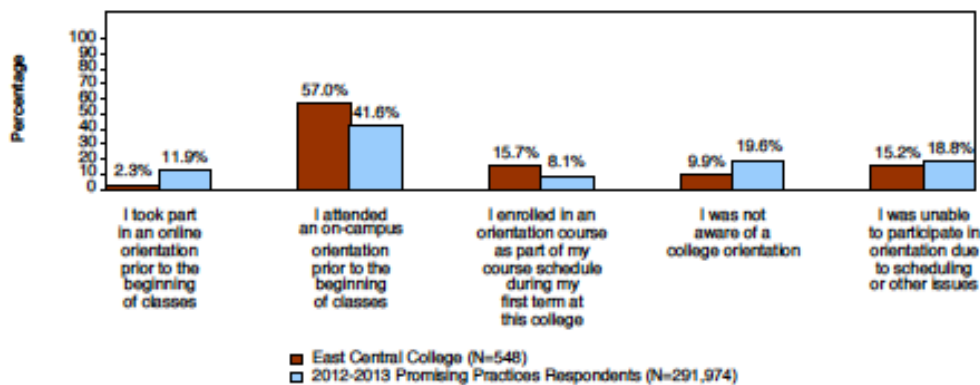




Figure 7: During my first term at this college, I participated in a structured experience for new students (sometimes called a "freshman seminar" or "first-year experience").

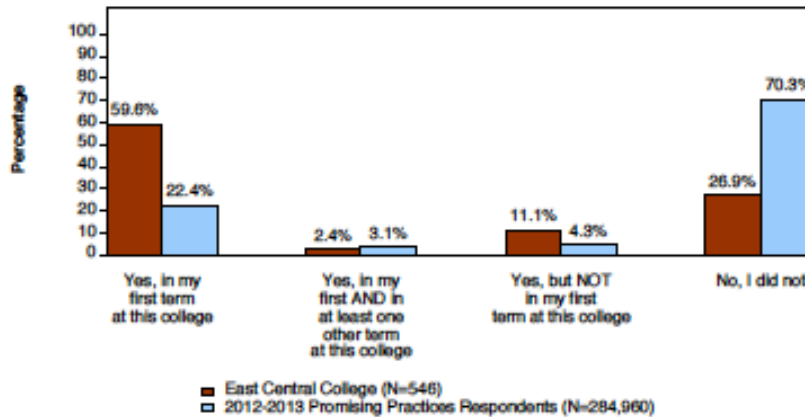


Figure 8: During my first term at this college, I enrolled in an organized "learning community" (two or more courses that a group of students take together).

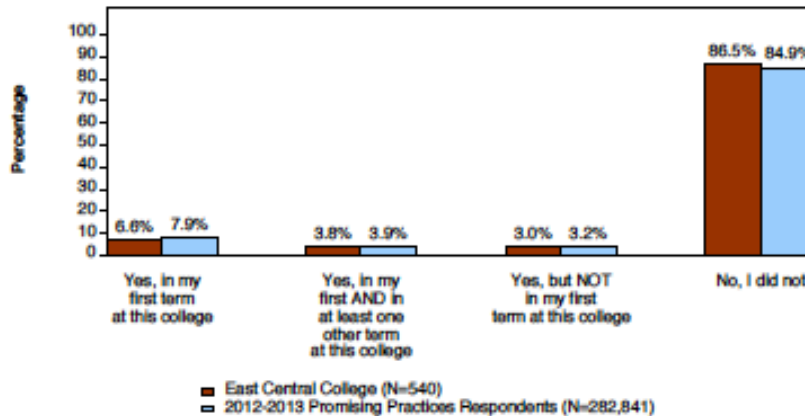
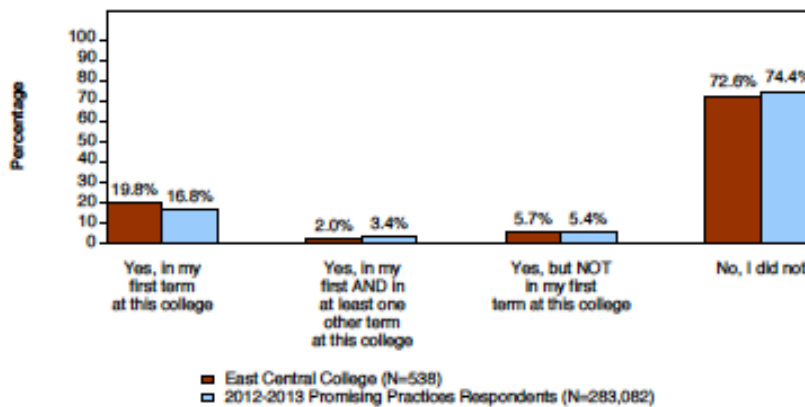


Figure 9: During my first term at this college, I enrolled in a student success course (such as a student development, extended orientation, student life skills, or college success course).







## CCFSSE

The Community College Faculty Survey of Student Engagement (CCFSSE) results displayed below reveal the proportion of full- and part-time faculty members from East Central College that are involved in teaching or facilitating organized “learning communities” (two or more courses that a group of students take together), structured experiences for new students (sometimes called a “freshman seminar” or “first-year experience”), and student success courses (such as a student development, extended orientation, study skills, student life skills, or college success courses). Additionally, these results can be viewed alongside the corresponding CCSSE special-focus item results featured on page 7 to reveal a more complete picture of how students and faculty are participating in the same promising practices.

Figure 10: During the current academic year at this college, have you been involved in teaching or facilitating a(n)

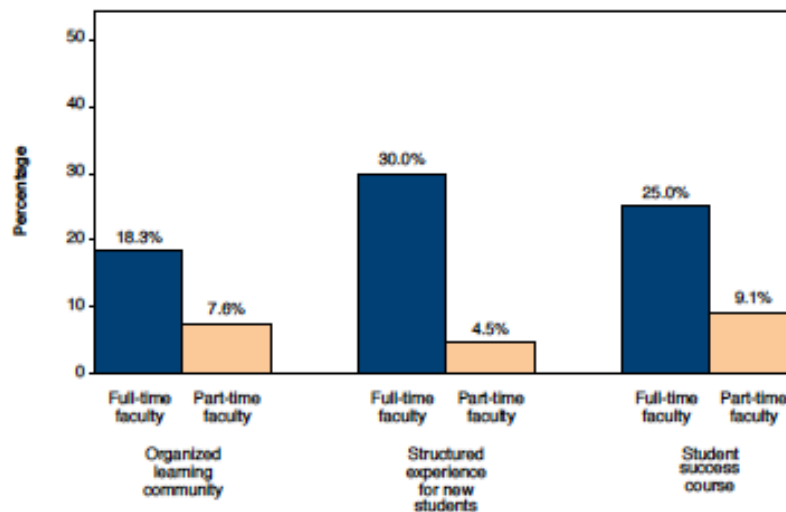


Table 3

Response	Organized learning community		Structured experience for new students		Student success course	
	Full-time faculty (N)	Part-time faculty (N)	Full-time faculty (N)	Part-time faculty (N)	Full-time faculty (N)	Part-time faculty (N)
Did teach or facilitate	11	5	18	3	15	6
Did not teach or facilitate	49	61	42	63	45	60
Total	60	66	60	66	60	66

## **2014 ECC Advising Report Survey**

### ***Introduction***

To evaluate the effectiveness of academic advising at East Central College, the Advisement Department conducted a survey during the spring 2014 registration period. The feedback was intended to measure what students thought about their experience when meeting with advisors to enroll in classes.

All students who registered for spring 2014 regular classes (i.e. non-Dual Credit and non-Dual Tech Credit) were emailed through their FalconMail accounts and asked to participate in a brief online survey about the advisement and enrollment experience. The survey was done anonymously through surveymonkey.com. Of the approximate 3050 students who enrolled at East Central College, 371 responded with at least some feedback. This represents about 12% of the total ECC student population.

The survey questions were culled from the Advising Syllabus. In addition to asking what core advising resource was used, the students were asked binary questions directly related to the “What Is Expected of Advisors” section of the syllabus. The purpose of the survey was to do an initial overview of how students perceive the academic advising process at East Central College. Students also were given the opportunity to leave a narrative comment regarding their experience.

### ***Recommendations***

The survey was intended as an initial inquiry to ‘measure the temperature’ of how students consider the ECC advising process. While the surface outcomes look very favorable, it is recommended that additional surveys and perhaps focus groups be conducted to identify what advisors do well and which advising tendencies have negative effects on students. These can be done within a “continuous improvement” model and may be appropriate as an AQIP project.

Based on the narrative comments, it is recommended that all ECC employees in the advisement process be trained in customer service techniques that improve the overall enrollment experience. While the negative feedback was proportionally small, the narrative comments indicate improvement is warranted. Increased positive customer service may have a significant effect on students’ perceptions of the advisement process and East Central College as a whole.

### ***Brief Analysis***

Overall, students report high satisfaction based on the measurements of this survey. Using the percentages on the responses, ECC advising, both general advisors and faculty members, earned an “A” for this registration period.

The number of students who use general advisors is high. When considering that the Students Service Center exclusively uses general advisors and the Rolla and Sullivan sites primarily use general advisors, 65.6% of ECC students who responded to this survey used a general advisor resource to enroll for spring 2014. (Note: The question asks for “all that apply,” resulting in an inflated total percentage response of 107.3%)

Students want more choices and options. Although 86.7% of responding students said that they were presented choices and options for their academic program, it is noteworthy that this was lower than all but one of the other measures. Presenting greater variety for students (more available class times, greater

variety of classes, fact sheets that allow for increased flexibility to satisfy degree requirements, etc.) may assist in students being more satisfied with the advisement process.

Students want to feel valued. This observation is based on the narrative comments from students. Students who perceive that they are important and respected tended to report higher satisfaction with the advisement process. (see the “Narrative Responses” summaries for more detail)

The Advising Syllabus is underused. Ironically, what scored lowest in the survey was the students’ awareness of the Advising Syllabus. 43.1% of students who responded stated they were not familiar with it. The Advising Syllabus is presented to all incoming students via a New Student Folder and it is available online under the Advising Resources Web page tab. All advisors should be encouraged to use this tool as a reference.

### **Response Summary**

To register for the 2014 spring semester, did you access an advisor in the Student Service Center on main campus, use the Rolla or Sullivan or Washington site, or visit an assigned faculty member?

	<u>Raw Number</u>	<u>%</u>
Student Service Center on main campus	169	47.6
Rolla or Sullivan sites	64	18.0
Washington site	10	2.8
Faculty member	138	38.9

Was the academic advisor available at a time, which was convenient for you?

	<u>Raw Number</u>	<u>%</u>
Yes	347	94.3
No	21	5.7

Was the academic advisor considerate of your interests and career choices?

	<u>Raw Number</u>	<u>%</u>
Yes	351	95.4
No	17	4.6

Did the academic advisor effectively communicate the requirements for your program?

	<u>Raw Number</u>	<u>%</u>
Yes	336	91.3
No	32	8.7

Did the academic advisor present choices and options for your program?

	<u>Raw Number</u>	<u>%</u>
Yes	319	86.7
No	49	13.3

Did the advisor understand your academic goals?

	<u>Raw Number</u>	<u>%</u>
Yes	351	95.6
No	16	4.4

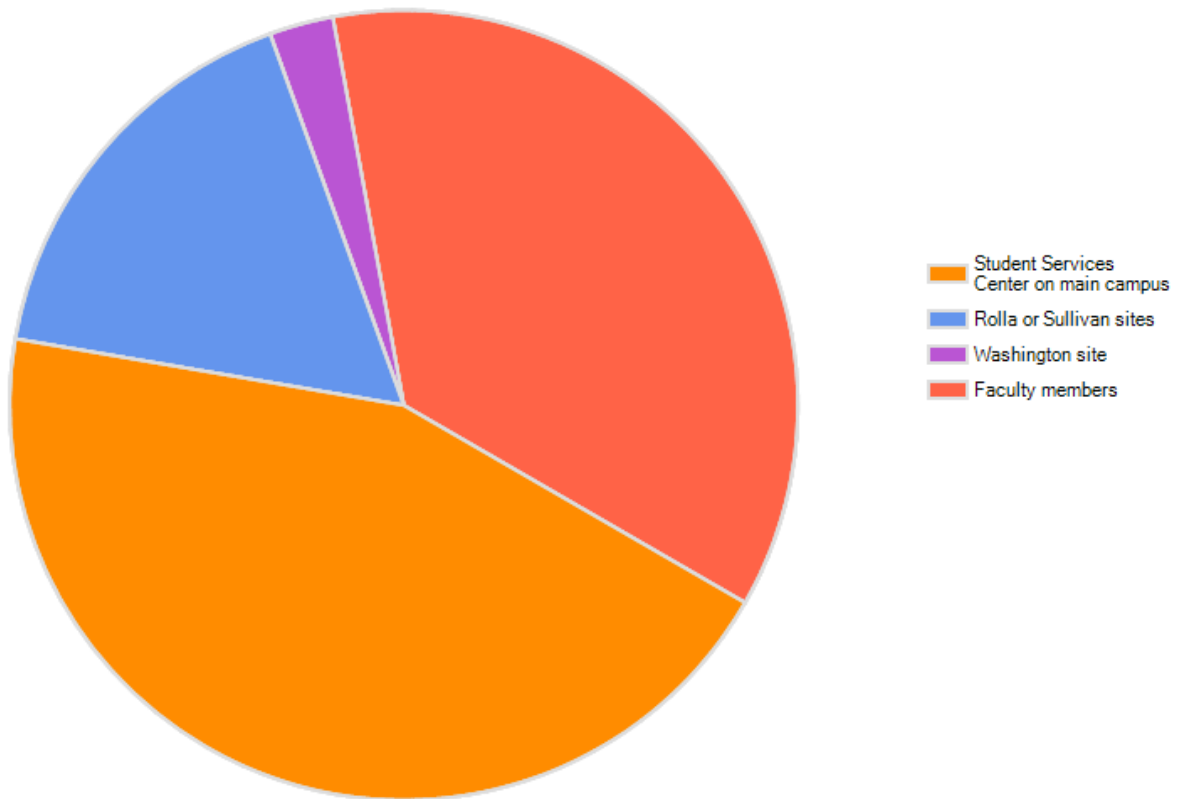


Are you familiar with the East Central College Advising Syllabus?

	Raw Number	%
Yes	209	56.9
No	158	43.1

**Visual Representation Indicating Where Students Registered for Spring 2014**

To register for the 2014 Spring Semester, did you access an advisor in the Student Services Center on main campus, use the Rolla or Sullivan or Washington site, or visit with an assigned faculty member? Check all that apply.



### **Narrative Response Results**

At the end of the survey, students were given the opportunity to leave a narrative response with the prompt, "Please give us some feedback regarding your experience registering for the 2014 Spring Semester at East Central College."

#### Negative Narrative Responses Summary

The narrative responses, which could be categorized as "negative" tended to be longer and more detailed than the positive comments. Of the 230 narrative comments submitted by student respondents, 36 (15.7%) were undeniably negative.

A common theme among these responses was they were written with emotional language, with some explicitly using the verb "feel" to help convey their impression of the advising process. Below are samples of the comments, which were negative. Names were removed and replaced with either "faculty member" or "general advisor."

- "I didn't get a lot of helpful information from my meeting with the advisor. I was scheduled with a general advisor since I'm transferring after completing my gen. ed."
- "Thought the advisor was rude and made me feel stupid."
- "I wish there was more of a choice in what classes. I felt like they were being chosen for me. Also, I just registered and didn't get to talk to my advisor."
- "My actual advisor did very little in enrolling me in my core classes I needed. I went to the head of the department for my degree to get enrolled for my core classes because my actual advisor would not email me back and was not in his office when he was supposed to be. I finally got in with him Tuesday to register for my last two electives for the next semester, but I feel slightly discarded and blown off. I had to go to his boss to get a meeting with him, that's slightly ridiculous."
- "My student adviser was available but went off on some kind of fun run-around. And so instead I met with an adviser that was available and he was very helpful and understanding of what I figured I wanted and needed to take for my general studies degree."
- "[Faculty member] spoke too fast and was in a hurry to get me scheduled, she overlapped my classes by accident which caused me to take off work to figure everything, making me running around campus to find a math instructor to sign that I am allowed to leave their class 10 minutes early. Which they have not scheduled math teachers to classes yet, so if my instructor does not allow me to leave early I have to reschedule and drop biology for history. I hate history, and I love biology. If I have to do so I'll be very disappointed in how unorganized ECC has been this semester."
- I have found it less stressful and aggravating to go to the student service center to register for classes rather than my assigned faculty advisor.

- Many people who helped me didn't guide me through the final online registration, which was rather confusing. I tried five times on my own using the step-by-step worksheet, but that still didn't

work. I finally had to have a general advisor help me. I wish my academic advisor would have completed the online part for me or showed me on the computer, so I knew how to do it next time. Other than that, I had a simple experience registering.”

- “I would have liked the degree requirements to be laid out correctly when I signed up for classes last semester. I was under the impression that there would be a few more classes available in the spring that weren’t actually offered.”
- “It was OK. I wish there was a more easily understandable guide to look at to see what I need to complete my degree program. I would rather not have to talk to an advisor every time I have a question about what my next step might be.”
- “[Faculty member] was rude to me, did not explain things well, and did not care about my academic goals and choices. She disregarded many things I said. I was more than frustrated leaving the appointment and considered switching colleges.”
- “When I meet with my advisors I just don’t want to feel rushed. It feels like sometimes they are in a hurry to get you out the door. I also don’t want to feel pressured in any way.”
- “New faculty members should not be able to do advising. The one I met with had to double-check everything. What should have been a 10-minute appointment turned into 35 minutes.”
- “My advisor helped me sign up for classes. What I found irritating is that East Central website offers students the option to sign up online, but students aren't actually able to use this feature. I know what classes I want to sign up for and what classes I need. I should be able to sign up for classes myself and the advisor approves them. I had no issues with my advisor. I had issues with a useless feature on East Central website.”
- My assigned advisor was new and not very helpful at all so that's when I went to the main desk.
- “[Faculty member] seemed to be unaware of what I needed to do to complete my graduation requirements. I felt like I knew more than she did and came in the meeting knowing what classes I had to take based on program evaluation and degree plans. She didn't know what all I needed to take and was supposed to call me when she found on information about a class and never did.”
- “It went well, but I felt like I was somewhat of a bother to the advisor.”
- “I had trouble coming up with a time to meet with my advisor, [faculty member]. When I finally did meet with him, he really did not help me with the registering process at all. He didn't even turn on his computer once to help me look up classes. When it came to registering, he had me go get a form, and he simply signed it and sent me on my way. I had to make another appointment with someone at the help center because I was so clueless to the registering process.”

- “The first advisor I talked with was kind of rude and impatient with me and advised me to register online even though I told her I would rather do it in person so I don't mess anything up. I left and came a different day and the second advisor helped me greatly.”
- “I did not get to actually talk to my advisor even though I emailed her to ask her for a meeting and she said yes. It was somewhat frustrating.”
- “I had to visit the student center for an advisor because my assigned advisor (faculty member) did not know what she was doing and couldn't help me at all. Ex: She didn't know how to allow me to register online, and didn't know what classes or how many of humanities, sciences, etc. that I needed.”

#### Positive Narrative Responses Summary

As with the rest of the survey, the majority of the narrative responses were primarily positive. These comments tended to contain no referential information. Many of the positive responses were casual and succinct, such as, “It’s all good,” “Everything went smooth,” and, “Easy-peasy, lemon-squeezy.”

This category of responses also had a high degree of positive emotional language. The following are samples of the positive comments received. Names were removed and replaced with either “faculty member” or “general advisor.”

#### Positive Narrative Responses Samples

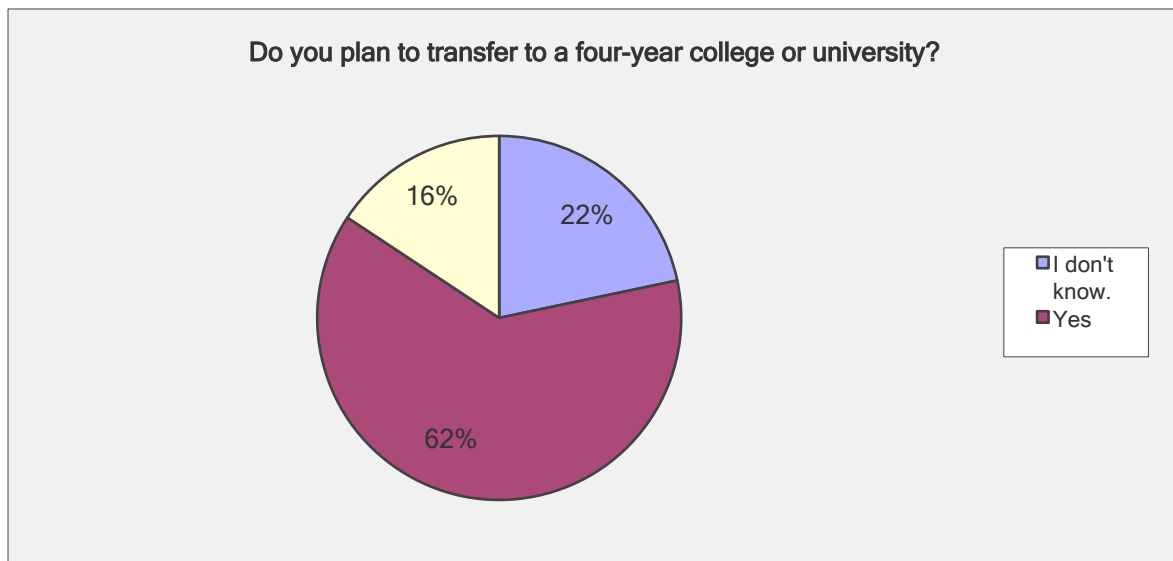
- “It’s been great. Hoping this helps me transfer later smoothly to MS&T. You guys have been extremely helpful so far.”
- “I really enjoyed my time with [general advisor]. She made me feel comfortable during my process.”
- “ECC is one of the very best colleges I have experienced regarding timely, and considerate registration.”
- “Advisor showed hospitality and did her job very well.”
- “My advisor [faculty member] is always very polite and extremely patient and helpful when I am registering for classes. I have never had any problems with any other faculty either when searching for answers that she cannot answer.”
- “I really enjoyed talking with my adviser; she was very helpful. I only went to student services because there was a class I was unsure how to register for.”
- “[Faculty member] is my advisor and she did a very good job at helping me pick classes and making sure I knew how to use the Internet registration before just leaving me on my own.”
- “[General advisor] has always been very helpful and supportive with my class choices. When asked why I was taking two physical education classes since I don't need them, she understood that stress relief and fitness were important to me, especially during school.”

- “My advisor helped me understand the whole concept of registration and helped me effectively prepare for the spring 2014 semester.”
- “The adviser I used was friendly and caring. He asked me good questions to determine the best classes for me to take that fit both my degree and my personal preferences.”
- “It was all quite painless, and my advisor was very helpful, going over each future semester to help me plan ahead. She made suggestions, but also listened to my concerns.”
- “My advisor was very helpful and she encourages me to come to her with any problems that I have.”
- “Loved my advisor. Very friendly. Helped me make a schedule that fit my wants and needs. Went back next day because I had questions. She answered them all fully and accurately.”
- “My advisor put my interests first, and knowing I was going for a bachelor’s degree suggested I get some classes out of the way now that I’ll need later.”
- “[General advisor] is awesome! She was so kind, and seemed to truly care about my future.”

## 2014 Student General Education Requirement Survey

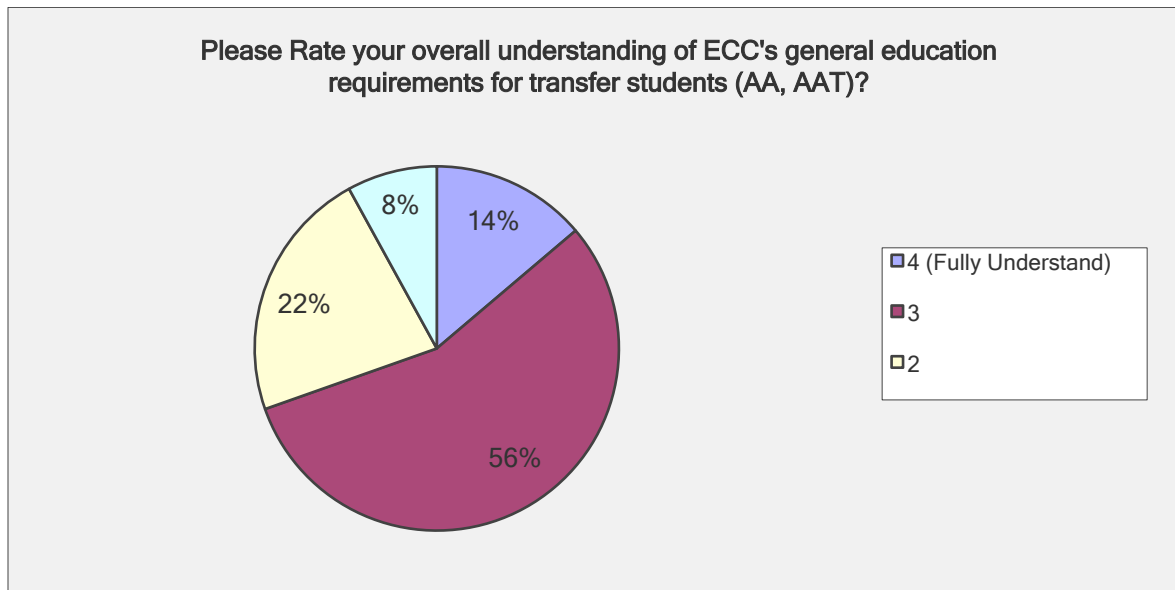
### Question 1

Do you plan to transfer to a four-year college or university?		
Answer Options	Response Percent	Response Count
I don't know.	21.7%	109
Yes	62.6%	315
No	15.7%	79
<b>answered question</b>		<b>503</b>
<b>skipped question</b>		<b>8</b>



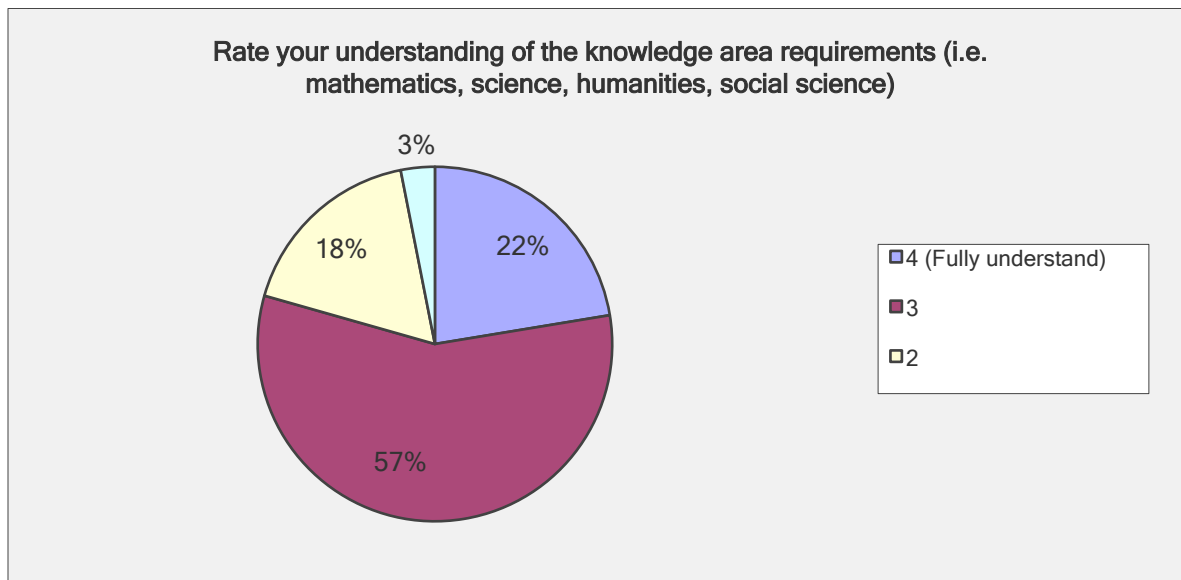
**Question 2**

Please rate your overall understanding of ECC's general education requirements for transfer students (AA, AAT)?		
Answer Options	Response Percent	Response Count
4 (Fully Understand)	13.8%	69
3	55.8%	279
2	22.4%	112
1 (No understanding at all)	8.0%	40
<b>answered question</b>		<b>500</b>
<b>skipped question</b>		<b>11</b>



**Question 3**

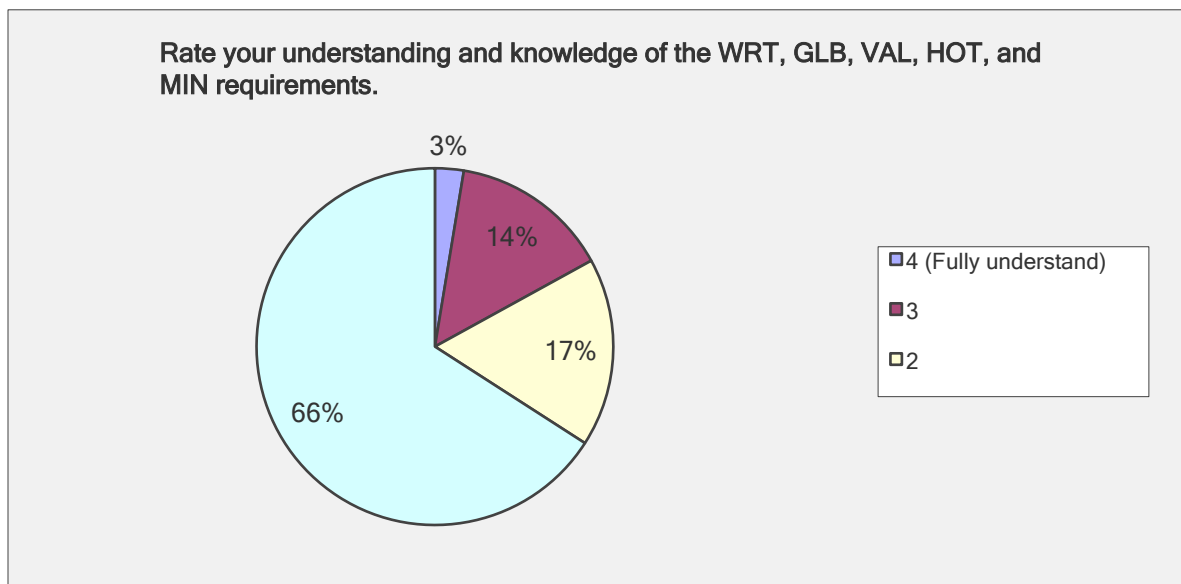
Rate your understanding of the knowledge area requirements (i.e. mathematics, science, humanities, social science)		
Answer Options	Response Percent	Response Count
4 (Fully understand)	22.4%	114
3	57.0%	290
2	17.5%	89
1 (No understanding at all)	3.1%	16
<b>answered question</b>		<b>509</b>
<b>skipped question</b>		<b>2</b>





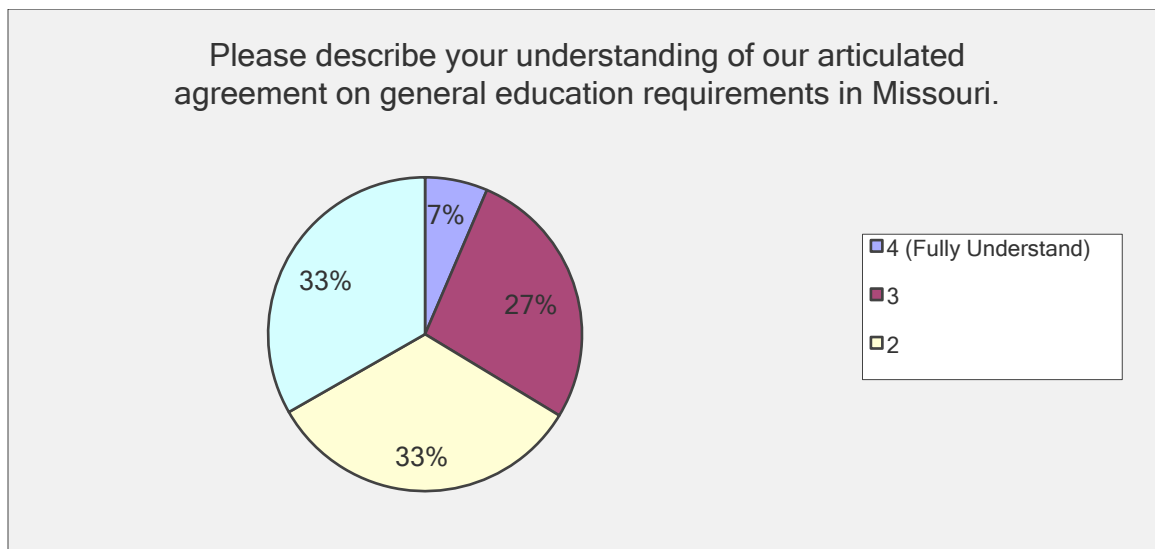
**Question 4**

Rate your understanding and knowledge of the WRT, GLB, VAL, HOT and MIN requirements.		
Answer Options	Response Percent	Response Count
4 (Fully understand)	2.6%	13
3	14.4%	73
2	17.1%	87
1 (No understanding at all)	65.9%	335
<b>answered question</b>		<b>508</b>
<b>skipped question</b>		<b>3</b>



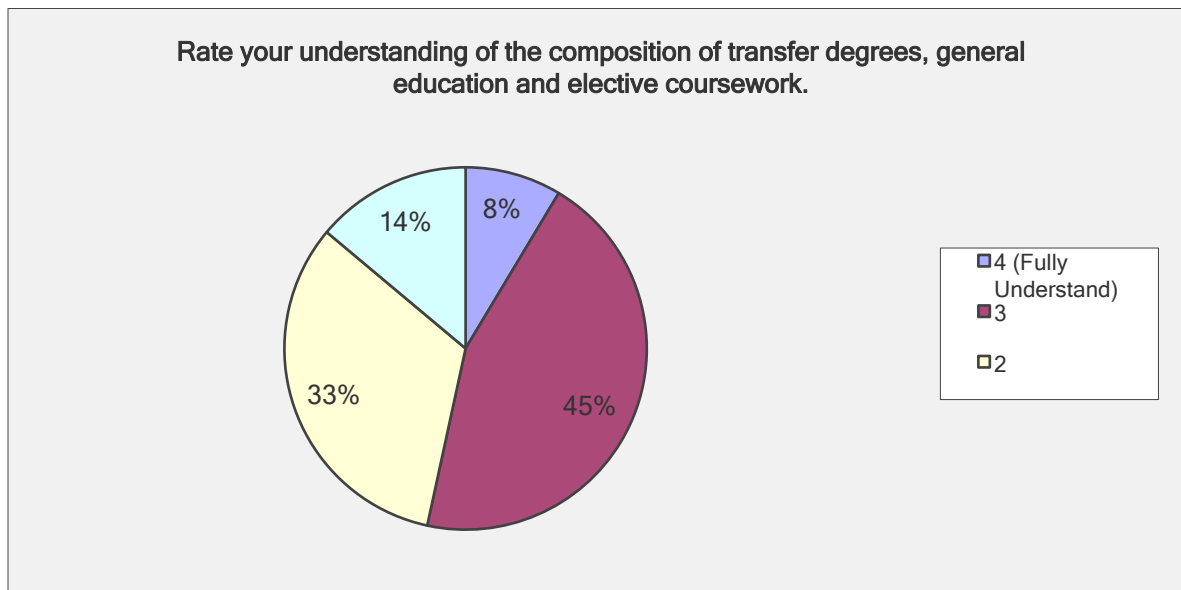
**Question 5**

Please describe your understanding of our articulated agreement on general education requirements in Missouri.		
Answer Options	Response Percent	Response Count
4 (Fully Understand)	6.4%	32
3	26.9%	135
2	32.7%	164
1 (No understanding at all)	32.9%	165
<b>answered question</b>		<b>502</b>
<b>skipped question</b>		<b>9</b>



**Question 6**

Rate your understanding of the composition of transfer degrees, general education and elective coursework.		
Answer Options	Response Percent	Response Count
4 (Fully Understand)	8.6%	44
3	44.8%	229
2	32.7%	167
1 (Fully Understand)	13.9%	71
<b>answered question</b>		<b>511</b>
<b>skipped question</b>		<b>0</b>

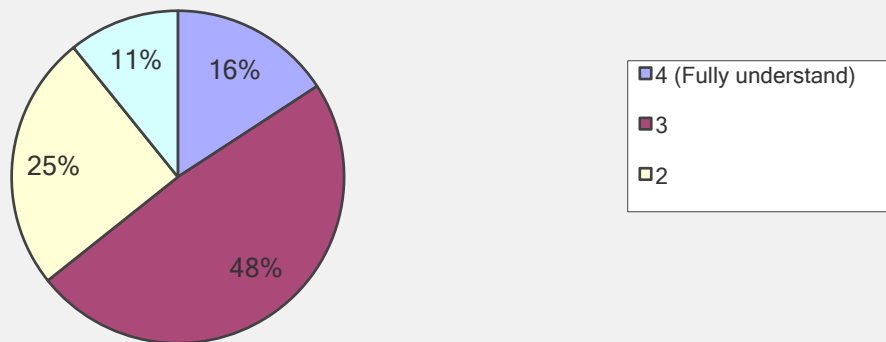


**Question 7**

Using the scale above, rate your understanding of general education as explained to you (i.e. from the catalog, fact sheet, advisor, generalist, faculty, etc.)

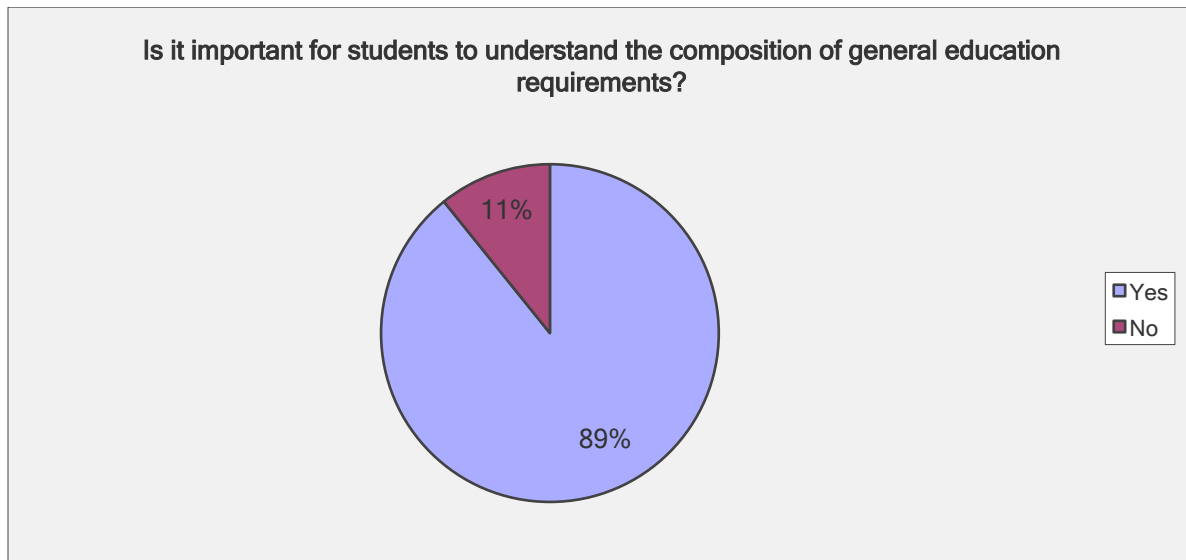
Answer Options	Response Percent	Response Count
4 (Fully understand)	15.8%	80
3	48.5%	246
2	24.9%	126
1 (No understanding at all)	10.8%	55
<b>answered question</b>		<b>507</b>
<b>skipped question</b>		<b>4</b>

Using the scale above, rate your understanding of general education as explained to you (i.e. from the catalog, fact sheet, advisor, generalist, faculty, etc.)



**Question 8**

Is it important for students to understand the composition of general education requirements?		
Answer Options	Response Percent	Response Count
Yes	89.2%	453
No	10.8%	55
<b>answered question</b>		<b>508</b>
<b>skipped question</b>		<b>3</b>



## SECTION 3: COMMON LEARNING OBJECTIVES

### Overview

In spring 2008, the ECC faculty adopted a set of common learning objectives (CLOs) for the entire school. The CLOs—revised in August 2009—represent the institutional learning objectives for any student completing an intact program of study at the college.

<b>Ethics &amp; Social Responsibility</b>	
<p><i>Related Themes:</i></p> <ul style="list-style-type: none"> <li>▪ Global citizenship</li> <li>▪ Professional ethics</li> <li>▪ Service learning activities</li> <li>▪ Extra and co-curricular student activities</li> <li>▪ Student government activities</li> <li>▪ Ethical use of digital material and media</li> </ul>	<p><i>Measures:</i></p> <ul style="list-style-type: none"> <li>▪ Constitution competency</li> <li>▪ Incidents of academic dishonesty</li> <li>▪ Incidents of unethical student conduct</li> <li>▪ Participation in service learning</li> <li>▪ Global and multicultural learning objective measures</li> <li>▪ Participation in student co-curricular activities</li> </ul>
<b>Communication</b>	
<p><i>Related Themes:</i></p> <ul style="list-style-type: none"> <li>▪ Listening</li> <li>▪ Writing</li> <li>▪ Speaking</li> <li>▪ Use of technology to communicate</li> <li>▪ Graphic and visual communications</li> <li>▪ Collaborative and group work</li> <li>▪ Co-curricular communication activities</li> </ul>	<p><i>Measures:</i></p> <ul style="list-style-type: none"> <li>▪ Writing skills assessments</li> <li>▪ Speaking skills assessment</li> <li>▪ Assessments of graphic and visual materials</li> <li>▪ Participation in presentations using technology</li> <li>▪ Student participation in student newspaper and other related activities</li> </ul>
<b>Creative/Critical Thinking</b>	
<p><i>Related Themes:</i></p> <ul style="list-style-type: none"> <li>▪ Problem solving skills</li> <li>▪ Use of and application of research tools</li> <li>▪ Demonstration of critique and evaluative skills</li> <li>▪ Application of observation skills</li> <li>▪ Originality of thought</li> <li>▪ Innovation and creation</li> <li>▪ Analysis and synthesis</li> </ul>	<p><i>Measures:</i></p> <ul style="list-style-type: none"> <li>▪ Critical thinking skills assessments</li> <li>▪ Assessment of projects requiring primary research skills</li> <li>▪ Student participation in critique activities</li> <li>▪ Application of technology to research skills</li> </ul>

### Assessment Plan

The Assessment Committee developed and adopted the following plan to assess the CLOs across the institution (revised October 2012).

<b>The Common Learning Objectives</b>		
<i>Assessing the Common Learning Objectives: Communication, Creative/Critical Thinking, Ethics and Social Responsibility</i>		
<i>Faculty Teaching General Education Courses</i>	<i>Faculty Teaching in Programs</i>	<i>Students Enrolled at ECC</i>
Process for General Education Faculty	Process for Program (AAS, Certificate) Faculty:	Process:
<ul style="list-style-type: none"> <li>✓ Designation of course(s) to be assessed by the division chair (annually)</li> <li>✓ Designation of general education courses associated with each of the CLOs</li> <li>✓ Assessment tool identified (the Assessment Committee)</li> <li>✓ Training throughout the year (cyclical)</li> <li>✓ Course learning objectives identified, denoted in course syllabi</li> <li>✓ Assessment data submitted at academic year-end</li> </ul>	<ul style="list-style-type: none"> <li>✓ Designation of course(s) specific to the program to be assessed by the program faculty/division chair (annually)</li> <li>✓ Designation of courses within the program associated with each CLO</li> <li>✓ Rotation of assessment of each CLO is identified</li> <li>✓ Assessment tool identified (the Assessment Committee)</li> <li>✓ Training throughout the year (cyclical)</li> <li>✓ Course learning objectives identified, denoted in course syllabi</li> <li>✓ Assessment data submitted at academic year-end</li> </ul>	<ul style="list-style-type: none"> <li>✓ Awareness of CLO course designation for general education and program-specific course</li> <li>✓ Participation in embedded or external assessments, as articulated in the course syllabus</li> </ul>

<b>The Common Learning Objectives (continued)</b>		
Assessing the Common Learning Objectives: Communication, Creative/Critical Thinking, Ethics and Social Responsibility		
<i>Faculty Teaching General Education Courses</i>	<i>Faculty Teaching in Programs</i>	<i>Students Enrolled at ECC</i>
<i>Measures</i>	<i>Measures</i>	<i>Measures</i>
<ul style="list-style-type: none"> <li>✓ Student learning, as compared to baseline or national norms, based on tool used</li> <li>✓ Weighing of CLO importance in the class</li> <li>✓ Numbers of students assessed for each CLO, sampling</li> </ul>	<ul style="list-style-type: none"> <li>✓ Student learning, as compared to baseline or national norms, based on tool used</li> <li>✓ Weighing of CLO importance in the class</li> <li>✓ Numbers of students assessed for each CLO, sampling</li> </ul>	<ul style="list-style-type: none"> <li>✓ Percent of students completing as assessment measurement</li> </ul>
<i>Results</i>	<i>Results</i>	<i>Results</i>
<ul style="list-style-type: none"> <li>✓ Faculty reports by CLOS are compiled; by discipline, by division, aggregate data</li> <li>✓ Data disseminated to divisions, departments</li> <li>✓ Improvement strategies developed</li> <li>✓ Data incorporated as part of program review</li> </ul>	<ul style="list-style-type: none"> <li>✓ Faculty reports by CLOS are compiled; by discipline, by division, aggregate data</li> <li>✓ Data disseminated to divisions, departments</li> <li>✓ Improvement strategies developed</li> <li>✓ Data incorporated as part of program review</li> </ul>	



## **SECTION 4: ACADEMIC DIVISION REPORTS**

1. Business, Education, Social Science & Technology Division
2. English, Foreign Language & Philosophy Division
3. Fine & Performing Arts Division
4. Mathematics & Physical Science Division
5. Nursing & Allied Health Division
6. Science Division

## **Business, Education, Social Science & Technology Division**

This division submitted reports on the following academic program and areas:

- Business
- Computer Information Systems
- History/Political Science
- Physical Education
- Psychology
- Psychology and Sociology

### **Business**

Course Reviewed: BU 1003 Introduction to Business

Submitted by: **Richard Hudanick, business instructor**

### **Course History**

Introduction to Business enjoys over 200 students in any given fall/spring academic year. This course is an academic requirement for AAS Accounting, AAS Business and AA Business Administration. It has been targeted as an opportunity to increase the general awareness of business with the plan to better engage the student in their career aspirations. A benchmark to determine acceptable classroom effectiveness is a criterion of this assessment.

### **Intended Program Outcome**

- Explore the many facets of the modern business world.
- Survey the functions of business.
- Discuss the intertwining of business on the global stage.
- Examine the challenges that the 21<sup>st</sup> century presents to modern business.
- Discover career opportunities as they relate to business.

Upon successful completion of this course, student will be able to:

- Understand the environment of business globally and the ethical aspects of business decision-making.
- Identify the trends in business today – ownership forms, e-business, etc.  
Understand the management and organization of businesses.
- Explain the human resource issues in attracting and retaining employees as well as motivation factors.
- Development, pricing, distribution of product, and communication to customers.
- Analyze the business strategy and decision making process using financial and accounting information.
- Understand how money, banking and credit play their role in business today.

### **Means of Assessment**

- Standardized Exams
- Standardized Quizzes
- Comprehensive Final
- Stock Report

### **Defined/Established Criteria**

- Students will achieve 80 percent of program goals and objectives.

### **Summary of Data Collected (Fall 2014/Spring 2015)**

During the 2014 spring and summer semesters, departmental efforts reflected the design of four exams (chapter-based) and one comprehensive final representing content covering the objectives of the course while offering a degree of challenge to the high-performing student. The department will gather data (test/quiz results) during the fall 2014 and spring 2015 semesters to determine a strategy for future course updates.

### **Computer Information Systems**

Course Reviewed: CS 1013 Survey of Computer Information Systems (fall 2013 and spring 2014)

Submitted by: **Judy Cook, computer information systems professor, Dianne Pellin, network technology instructor and Jason Durbin, business management & technology instructor**

#### **Learning Activity Experience**

- The fall 2013 and spring 2014 CS1013 Survey Computer Information Systems classes were offered in several sections and time/day formats taught by five different instructors.
- The pre-test and post-tests were taken using the Moodle learning course management system.
- The pre-test and post-test consisted of 30 questions covering the computer concepts objectives of the course.
- Students completed the pre-test during the first week of class and they completed the post-test during the last week of class.

#### **Analysis of Assessment**

- Five questions out of 30 resulted in lower post-test average than pre-test average
- All five of these questions were in the same hardware objective.
- The average difference of improvement between pre-test and post-test for each objective ranged from three to 17 percent
- The highest differences were in the Internet and communications objectives.

#### **Recommendations and Actions**

- Keep the same assessment for year 2014-2015 to improve the assessment results.
- Reviewing questions and responses for clarity and to remove confusing phrasing.
- Points will be added for completion of the post-test and it will be given to the students during the final exam class.
- Clarifying vocabulary on Moodle course home page and class assignments to provide reinforcement of terminology.
- A class lecture with PowerPoint will be presented to cover the hardware objective.

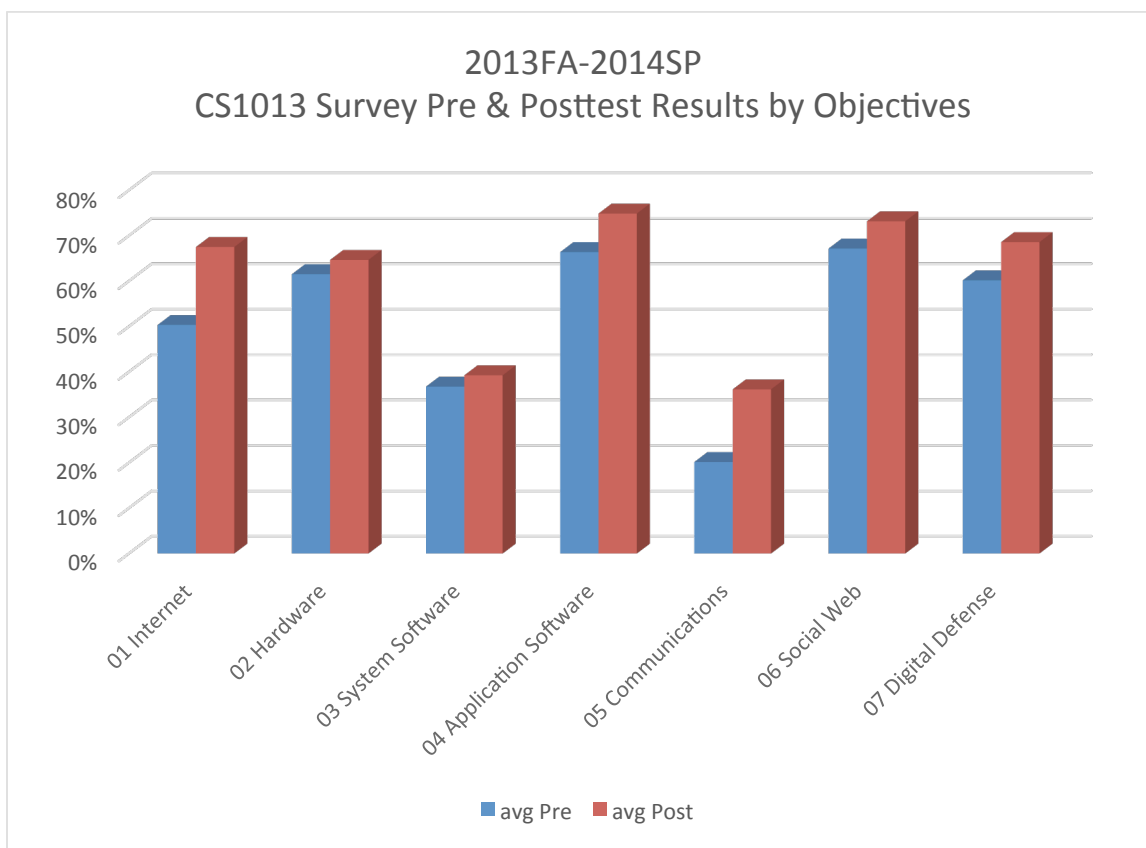
#### **Action Date**

- Repeat assessment in year 2014-2015 (evaluating recommendations and actions to improve assessment results)

#### **Expected Outcomes**

- Students seem to take the post-test more seriously if points are earned and they have reviewed the material in preparation for their final exam.
- Students will become more familiar with course vocabulary as it is emphasized on the Moodle course home page and class assignments.
- Questions and responses will be clearer with the corrected phrasing.

## Actual Results



### CS1013 Survey CIS Objectives

1. Locate information on the Internet and analyze it for accuracy.
2. Choose appropriate hardware for personal and business use.
3. Discuss the purpose of the operating system in a computing device.
4. Identify the key features of software applications for personal and business use.
5. Describe the use of electronic devices to support personal and business communications.
6. Determine ethical behavior when using a computing device and social media.
7. Identify ways to safeguard personal and business information when using a computing device and social media.

### **Computer Information Systems**

Assessment Measure: TSA Network CISCO Academy (summer and fall 2013 and spring 2014)

Submitted by: **Judy Cook, computer information systems professor, Dianne Pellin, network technology instructor and Jason Durbin, business management & technology instructor**

#### **Technical Skills Assessment Learning Activity/Experience:**

- Spring 2014 CS2203 Network 4 class was offered two days a week at 5 to 6:15 p.m. taught by one instructor.
- Cisco Networking Academy is a global education program that teaches students how to design, build, troubleshoot and secure computer networks for increased access to career and economic opportunities in communities around the world.
- Networking Academy provides online courses, interactive tools and hands-on learning activities to help individuals prepare for networking environments in virtually every type of industry.
- Students acquire skills needed to design, build and manage networks, along with career skills such as problem solving, collaboration and critical thinking.
- Students finish hands-on learning activities and network simulations to develop practical skills that will help them fill a growing need for networking professionals around the world.
- Students in the Computer Information Systems program take four Network CCNA courses. During these four courses, they must successfully complete the final objective exam and hands-on skills test for each network class before enrolling in the next Network course in the sequence.
- The networking curriculum is controlled by CISCO Network Academy. This exit exam is recognized as a program-level accomplishment for ECC's graduating students.

#### **Analysis of Assessment**

- Eighteen out of 56 questions resulted lower average than the national average.
- Thirty-seven out of 56 questions were the same or higher than the national average.
- The objectives of lower than average performance will be reviewed and emphasized in class as students work through these objectives.
- The average difference of improvement between ECC and national averages for each objective ranged from -1 to 9 percent.
- The objectives where ECC was below the national average were in frame relay and troubleshooting objectives.

#### **Recommendations and Actions**

- Require students to complete the Practice CCNA exam, Practice CCENT exam, and Practice Final exam. These test scores are averaged and included in the course grade.
- Require Packet Tracer Skills Based Assessment for the following: OSPF, EIGRP and WAN.
- Include time in class as a group to review the practice exams and Packet Tracer assessments to clarify any identified weaknesses.

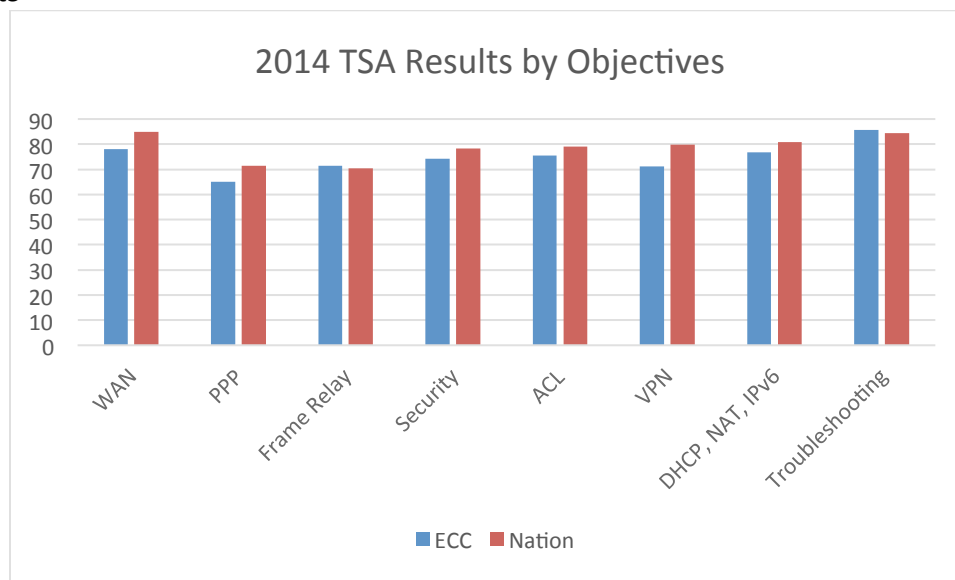
#### **Action Date**

- Spring 2015

### Expected Outcomes

- Students seem to take the Practice Exams more seriously if points are earned.
- Reviewing the results of the Practice Exams and Packet Tracer assessments will help identify their weaknesses and provide mastery learning.

### Actual Results



### Technical Skills Assessment Objectives

1. Configure and verify a basic wide area network (WAN) serial connection and troubleshoot WAN implementation issues.
2. Configure and verify a point-to-point protocol (PPP) connection between Cisco routers.
3. Configure and verify frame relay on Cisco routers.
4. Identify types of network attacks and establish mitigation techniques to manage router security.
5. Configure and apply access control lists (ACLs) based on network filtering requirements.
6. Describe the importance, benefits, role, impact and components of virtual private network (VPN) technology.
7. Dynamic host configuration protocol (DHCP), network address translation (NAT), internet protocol version 6 (IPv6):
  - a. Explain the operation and benefits of using DHCP and domain name system (DNS). Configure, verify and troubleshoot DHCP and DNS operations on a router.
  - b. Explain the basic operation of network address translation (NAT); set up its configuration; troubleshoot NAT issues.
  - c. Explain the operation and benefits of using IPv6 tunneling. Describe the routing considerations with IPv6 and configure it with routing information protocol (RIP).
8. Describe current network security threats and explain how to implement a comprehensive security polity to mitigate common threats to network devices, hosts and applications.

**Computer Information Systems Program Advisory Committee**

Submitted by: **Judy Cook, computer information systems professor, Dianne Pellin, network technology instructor and Jason Durbin, business management & technology instructor**

**Analysis of Assessment**

- Ten criteria measures out of 17 were in the “strongly agree” and “agree” ranges.
- Four criteria were between the “agree” and “unsure” range.
- One criterion, “committee promotes and publicizes the program” indicated all respondents were “unsure.”
- Two criteria were in the “disagree” and “strongly disagree” range.

**Recommendations and Actions**

- The one criterion where all respondents were unsure will be an agenda item at the fall 2014 Advisory Committee meeting so that it can be discussed and an action plan developed. [Criterion: “Committee promotes and publicizes the program.”]
- The constitution and bylaws criteria that was in the “disagree” and “strongly disagree” range was identified during the ATMAE Accreditation Site Visit in March 2014. The CIS Advisory Committee met April 24, 2014, and established a constitution and by-laws for the group. This will be brought to the committee in the fall 2014 meeting for formal adoption. [Criteria: “Committee utilizes an up-to-date constitution and by-laws to govern its operation.”]
- The “meeting well-attended criterion” may improve as the constitution and bylaws require a chair and co-chair position be elected and prove leadership of the meeting and committee. This item can also be discussed at the fall 2014 meeting for more recommendations. [Criteria: “Committee meetings are well attended by members.”]

**Action Date**

- Fall 2014 CIS Advisory meeting will review assessment findings and address recommendations and actions to improve the effectiveness of the Program Advisory Committee.

**Expected Outcomes**

- Advisory Committee members will discuss the results of the assessment and develop recommendations and actions.
- Fall 2014 CIS Advisory meeting will finalize the adoption of the CIS Advisory Committee constitution and bylaws.

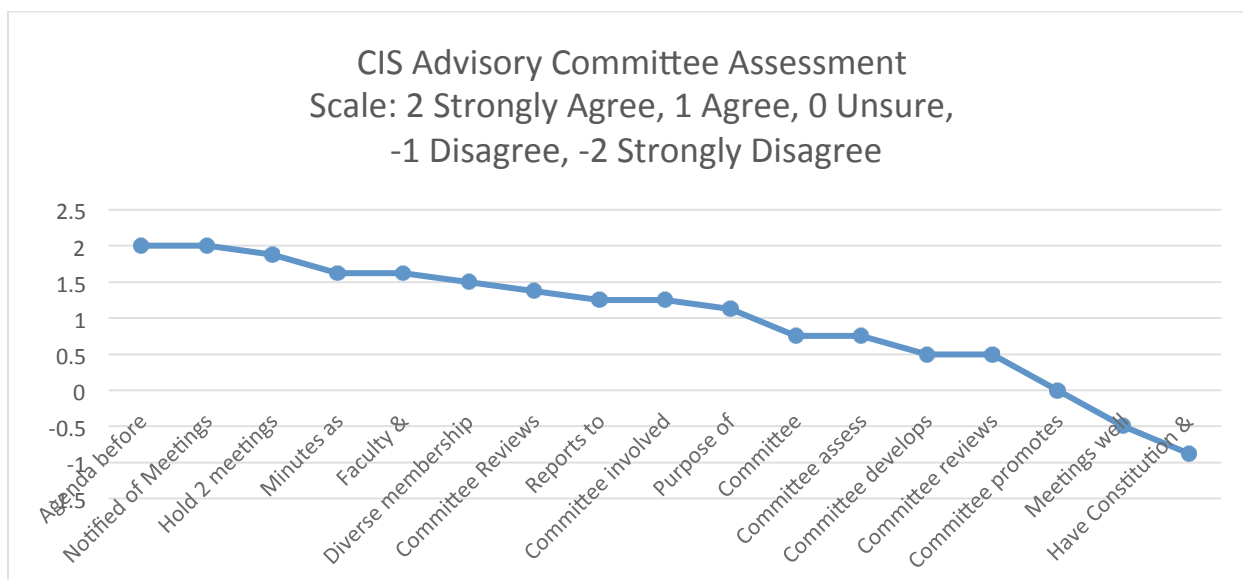


**Actual Results**

**CIS Advisory Committee Assessment Scale:**

**2 Strongly Agree, 1 Agree, 0 Unsure,  
-1 Disagree, -2 Strongly Disagree**

Assessment Item	Average
Agenda before meeting	2
Notified of Meetings	2
Hold 2 meetings annually	1.875
Minutes as Permanent Record	1.625
Faculty & Administrators attend	1.625
Diverse membership	1.5
Committee Reviews Curricula	1.375
Reports to Administration	1.25
Committee involved in curricula	1.25
Purpose of Committee	1.125
Committee Recognized	0.75
Committee assess impact of recommendations	0.75
Committee develops annual plan	0.5
Committee reviews Outcome data	0.5
Committee prompts program	0
Meetings well attended	-0.5
Have Constitution & By-Laws	-0.875



### **ATMAE 7.18 Advisory Council Approval of Overall Program**

An industrial advisory committee shall exist for each program/option and shall participate in general outcome and competency validation and the evaluation of overall program success. If more than one program of study or program option is available, then appropriately qualified industrial representatives shall be added to the committee or more than one committee shall be maintained. Policies for the advisory committee shall exist that include:

- a. Criteria for member selection;
- b. Procedures for selecting members;
- c. Length of member appointment;
- d. Committee responsibilities;
- e. Frequency of meetings (at least one per year); and
- f. Methods of conducting business.

A roster of advisory committee members and minutes of advisory committee meetings shall be made available to the visiting team.

#### Visiting Team Comments

The team finds that sufficient documentation that an advisory committee is in place; however, there is lack of evidence on the procedure of electing officers and conducting advisory committee meetings as well as assignment responsibility to the board.

#### Analysis of Conclusions

The CIS Advisory Committee currently is organized by the CIS program faculty who create the agenda, run the meeting and document the minutes. A *2009 Career and Technical Advisory Committee Policy Handbook* needs revision.

### **Recommendations and Actions**

1. The committee discussed the role of officers for the Advisory Committee. It was decided that a chair and co-chair would be appropriate and the duties of the secretary be completed by the division clerk and program faculty.
2. The chair would be a one-year term. The co-chair would be a one-year term, with the understanding that the co-chair would agree to become the chair the following year to provide continuity to the committee leadership.
3. A new co-chair would then be elected from the members-at-large in the spring semester meeting, activating the new chair and co-chair positions for the fall semester meeting.
4. Chair, co-chair, and CIS program faculty will collaborate on meeting agenda and other issues as needed.
5. It was agreed that the membership have unlimited term service on the committee.
6. A minimum of two announced meetings of the Advisory Committee will be held during the school year. These can be in person or electronic as needed. Electronically held meetings may be held if time-sensitive items occur.
7. Committee members may submit comments and suggestions to the agenda items electronically if unable to attend the meeting.

**Action Date**

1. Election of chair and co-chair occurred at this meeting. Dan Stamer is the chair and Dan Hall is the co-chair beginning their leadership for the 2014-2015 academic year.
2. The *CIS Advisory Handbook* will be revised and submitted to the committee for consideration and recommendations at the fall semester meeting. The items listed above will be incorporated into the revised *Handbook*.

**Expected Outcome**

The committee will review and adopt the *CIS Advisory Handbook* under the leadership of the chair and co-chair positions.

**SWOT Analysis by CIS Advisory Committee April 24, 2014**  
**Strengths, Weaknesses, Opportunities, and Threats**

<b>Internal Factors</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Good pool of expertise</li> <li>2. Quite a few former students have an inside view.</li> <li>3. Eager to help improve the program I attended.</li> <li>4. Personal pride in keeping involved in ECC</li> <li>5. Community commitment</li> <li>6. Business Professionals represented—helpdesk, programming, network, etc.</li> <li>7. Members hire ECC graduates.</li> <li>8. Members have good technical expertise.</li> <li>9. Growing industry</li> <li>10. Constant change needs inputs</li> </ol>	<ol style="list-style-type: none"> <li>1. Low attendance at meetings</li> <li>2. High invites, low attendance</li> <li>3. No transfer institutions present</li> <li>4. No students on committee</li> <li>5. Low attendance</li> <li>6. Poor attendance at meetings</li> <li>7. Tough technical material</li> <li>8. Misunderstood by many</li> </ol>
<b>External Factors</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Ever present need for the skills provided</li> <li>2. The group broadened of people to add to committee.</li> <li>3. Include current students</li> <li>4. New companies moving in</li> <li>5. New technology and ways to meet it</li> <li>6. Include people from communities in ECC service area</li> <li>7. Potential for new members</li> <li>8. Local industry connections</li> </ol>	<ol style="list-style-type: none"> <li>1. The field is large and fluid. By the time a program is out it could be already behind.</li> <li>2. As the economy improves, TRA and other older student enrollment is dropping.</li> <li>3. Constant changes over a work force</li> <li>4. Very busy professionals</li> <li>5. Keeping people on the committee</li> <li>6. Difficult to gather many members at once</li> </ol>

### **History**

Course Reviewed: U.S. History Courses (HI 1103 and 1303), PS 1103 Introduction to Political Science and PS 1203 U.S. Government I: Nation and State (fall 2013 – spring 2014)

Submitted by: **Dennis Pohlman, history and political science assistant professor**

### **Overview**

#### Curriculum

New CLO common writing assignments for HI 1103 U.S. History to 1865 and HI 1303 U.S. History 1945 – Present were developed. Common valuing assignments for PS 1103 Introduction to Political Science and PS 1203 US Government I: Nation & State were piloted.

Standardization of at least one writing assignment per course will clarify what the department wants to emphasize in quality student writing, and puts all instructors on the same page in assessing student success. Students were able to express their choices in public policy valuing decisions in the political science courses through an ideology survey, but assigning grades to such assignments remains problematic.

#### Teaching/Learning

Using a new custom-made HI text for use in all three U.S. History survey courses, with more in-depth information post-1945 was investigated; adjustments to the layout and format of the Constitutions Study Module were made. A custom textbook may be prohibitively expensive for students if they do not take more than one course within the department. If that course is HI 1303, a separate text and-or reader for that course alone may be more cost-effective. A single version of the Constitutions Module must be agreed upon to improve students' experience.

#### Students

Investigation into means to assess critical thinking continues. No CAAP tests were administered for department purposes in 2013-2014. A course-embedded exam was contemplated but not implemented.

### **Results/Impact**

#### Curriculum

Although reports from all sections taught are not in, anecdotal evidence points to an improvement in the quality of student writing; for PS 1103 and 1203 students were able to express more clearly a political philosophy (ideology) and how that philosophy would impact public policy. The ideology survey should be incorporated in all PS 1103, 1203 and 1303 sections.

#### Teaching/Learning

A new text will be adopted for fall 2014, but it may not be a custom design. If enrollment figures warrant, a separate text for HI 1303 will be added. Some aesthetic changes to the Constitution Module will be undertaken in the summer session, broken links to some online material will be removed.

#### Students

As no standardized (nationally-normed) critical thinking exam for history and political science has been identified, the department may need to create one, especially if CAAP testing is suspended.

**Physical Education**

Courses Reviewed: PE 1181 Intermediate Fitness

Submitted by: **Jay Mehrhoff, fitness and physical education associate professor**

**Overview**

The PE 1181 Intermediate Fitness course was changed to reflect the definition of a physical education lab class to include 1500 class contact minutes during the 2013-2014 academic year. This is an increase of over 500 minutes per semester.

In the course, the beginning and ending assessments were rewritten on a chart for the students to compute, record and identify progress in their cardiorespiratory, muscular strength and muscular endurance testing. The instructor conducted a comparison review of the pre and post assessments with the individual students.

The increase in time reflects course definition of a physical education lab class. It also provides extended workouts to increase improvement of physical fitness in regard to cardiorespiratory endurance, muscular strength, muscular endurance and body composition.

Changing the assessment-recording chart provides a guideline of muscular strength and endurance levels throughout the course of the semester in an understandable manner on one sheet without having to read multiple directions. This is a work in progress to collect and properly record the data. A small percentage of students were not able to correctly compute the date in the scales provided on the worksheet with instructor explanation and examples provided.

**Results/Impact**

The implementation of extra minutes had a positive correlation with increased cardiorespiratory endurance over past semesters. Male and female students improved on average five to 10 percent with the increased individual cardiorespiratory endurance assessment. Muscular strength improved, but it was not as noticeable of a change as the increase in cardiorespiratory endurance.

**Supporting Evidence/Information**

Table 1.1 Spring 2014: Females – Cardiorespiratory Assessment

Test	Pre-Test*	Post-Test*	Difference*
1.5 Mile Run	15.25	13.47	-1.78
3.0 Mile Walk	57.00	48.00	-9.00

\* Measurement in minutes

Chart 1.1 Spring 2014: Females – Cardiorespiratory Assessment

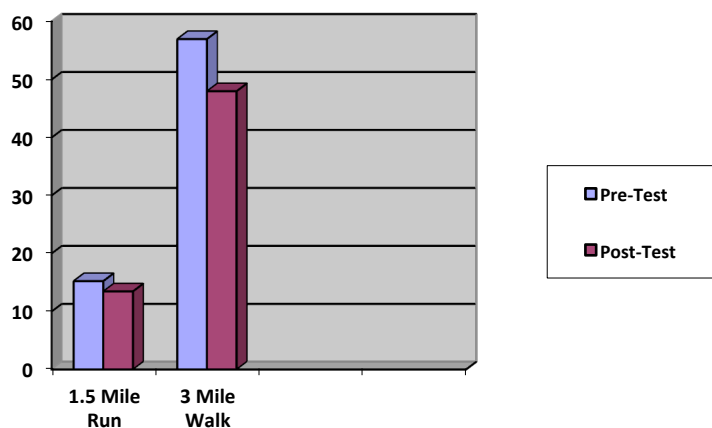


Table 1.2 Spring 2014: Females – Muscular Strength Assessment

Test	Mean	Rating
Biceps Curl 1	0.35	Average
Biceps Curl 2	0.44	Good
Shoulder Press 1	0.39	Average
Shoulder Press 2	0.45	Good
Bench Press 1	0.65	Average
Bench Press 2	0.79	Good
Squat 1	1.38	Good
Squat 2	2.07	Excellent
Hamstring Curl 1	0.72	Excellent
Hamstring Curl 2	0.87	Excellent

Chart 1.2 Spring 2014: Females – Muscular Strength Assessment

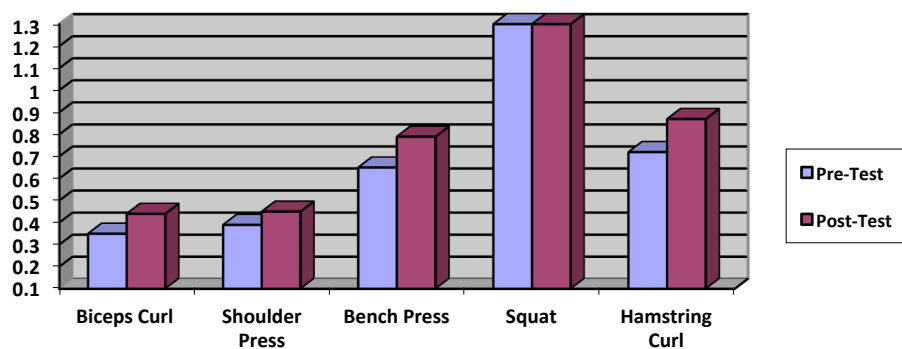


Table 1.3 Spring 2014: Females – Muscular Endurance Assessment

Test	Mean	Rating
Biceps Curl 1	0.21	Average
Biceps Curl 2	0.31	Good
Bench Press 1	0.33	Fair
Bench Press 2	0.61	Excellent
Squat 1	1.13	Good
Squat 2	1.43	Excellent
Hamstring Curl 1	0.46	Excellent
Hamstring Curl 2	0.67	Excellent

Chart 1.3 Spring 2014: Females – Muscular Endurance Assessment



Table 2.1 Spring 2014: Males – Cardiorespiratory Assessment

Test	Pre-Test*	Post-Test*	Difference*
1.5 Mile Run	12.30	9.33	- 2.97
3.0 Mile Walk	54.45	54.03	0.42

\* Measurement in minutes

Chart 2.1 Spring 2014: Males – Cardiorespiratory Assessment



Section 4 – Business, Education, Social Science & Technology Division Reports

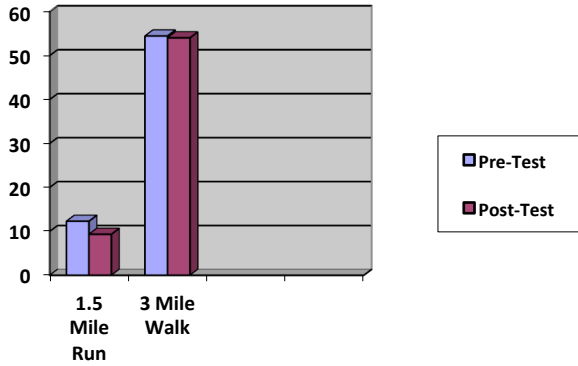


Table 2.2 Spring 2014: Males – Muscular Strength Assessment

Test	Mean	Rating
Biceps Curl 1	0.53	Average
Biceps Curl 2	0.59	Good
Shoulder Press 1	0.57	Poor
Shoulder Press 2	0.69	Fair
Bench Press 1	0.84	Poor
Bench Press 2	0.91	Fair
Squat 1	1.53	Average
Squat 2	1.60	Average
Hamstring Curl 1	0.75	Excellent
Hamstring Curl 2	0.85	Excellent

Chart 2.2 Spring 2014: Males – Muscular Strength Assessment

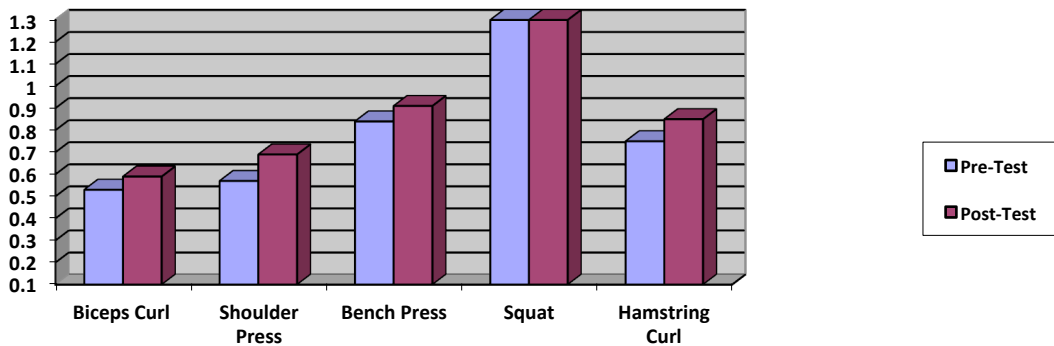


Table 2.3 Spring 2014: Males – Muscular Endurance Assessment

Test	Mean	Rating
Biceps Curl 1	0.31	Fair
Biceps Curl 2	0.36	Fair
Bench Press 1	0.44	Poor
Bench Press 2	0.65	Average
Squat 1	1.09	Poor
Squat 2	1.24	Fair
Hamstring Curl 1	0.48	Excellent
Hamstring Curl 2	0.64	Excellent

Chart 2.3 Spring 2014: Males – Muscular Endurance Assessment



### Findings Spring 2013

Students enrolled in PE 1181 Intermediate Fitness need to be instructed to complete their assessments in better detail with the inclusion of complete percentages when calculating their muscular strength and muscular endurance scores. This will in turn increase the sample size of participating students providing a better indicator of overall student progress in the course.

### Action for 2013-2014

Modifications were made to the assessment chart and instructions were re-written to help clarify directions for students to complete assessments. Students were verbally walked through the math computations. At the end of the semester, a review of improvement was discussed between the student and the instructor.

**Psychology Department Assessment Plan (2012-2015)**

Submitted by: **Wendy Pecka, Ph.D., psychology program coordinator and ECC psychology faculty**

**Mission**

The ECC Psychology Department plans to collaborate with students, other faculty and ancillary instructional departments to accomplish the mission of East Central College. As representatives of East Central College, “we will provide an environment for life-long learning”.

**Purpose**

“Our primary purpose is to offer a curriculum that is student-centered, highlighted by its variety of course offerings, and noted for its differentiated instructional approaches to attempt to meet the students’ individual learning styles. Our secondary purpose is to offer the student an opportunity to explore the discipline of psychology to encourage the student to consider this field of study as a major, or simply see the relevance of our curriculum as satisfying the psychology degree requirements or social/behavior science electives.”

**Departmental Material and Course Goals**

The following will be assessed by pre-test and post-test measures.

1. Describe and explain the theories and content of psychology as a science.
2. Understand research methods in psychology, including how the scientific approach is applied to conduct, evaluate and enhance psychological research.
3. Communicate and apply psychological principles to personal, organizational and social issues.
4. Research relevant psychological literature using technology in order to seek solutions to practical and theoretical problems in a socio-culturally diverse environment.

**Departmental Student-Oriented Goals**

The following goals will be assessed with indirect measures.

1. The Psychology Department will implement a student-centered approach in each course offered at East Central College by providing differentiated instructional strategies to enhance the student’s learning. These strategies will include collaborative learning techniques, interactive techniques and group work activities to enhance the student’s engagement in the classroom. **(Persistence rates will be provided by the Institutional Research Department).**
2. The Psychology Department will provide course offerings in a timely and sequential manner that allows the student to graduate with an Associates of Arts Degree in Psychology and pursue a Bachelor’s degree at a four-year university. **(Course curriculum and course offerings checked by the division chair each semester).**
3. The Psychology Department will utilize all means possible to ensure that the student’s experience in the classroom is beneficial, productive and successful. **(Grade distribution, passing and failing grades provided by the Institutional Research Department).**

ECC-CLO	Psychology Department Outcomes		PY1103	PY2103	PY2203	PY2213	PY2303	PY2403	PY2503	Other
CLO-2 CLO-3	Describe and explain the theories and content of psychology as a science.	Measure	DIR-1		DIR-4		DIR-7	DIR-2	DIR-3	IND-1 SP-12
		Collect Term	SP-15		SP-15	FA-13	SP-14	FA-15	FA-14	
CLO-3	Understand research methods in psychology, including how the scientific approach is applied to conduct, evaluate, and enhance psychological research.	Measure	DIR-1		DIR-4					
		Collect Term	SP-15		SP-15					
CLO-2	Communicate and apply psychological principles to personal, organizational, and social issues.	Measure		DIR-6		DIR-5	DIR-7		DIR-3	
		Collect Term		SP-12		FA-13	SP-14		FA-14	
CLO-1 CLO-3	Research relevant psychological literature using technology in order to seek solutions to practical and theoretical problems in a socio-culturally diverse environment	Measure		DIR-6		DIR-5		DIR-2		
		Collect Term		SP-12		FA-13		FA-15		

ECC-Common Learning Objective-1: Social Responsibility  
 ECC-Common Learning Objective-2: Communication  
 ECC-Common Learning Objective-3: Critical Thinking

Direct Measure-Course Embedded (DIR-1)	25 items Pre/Post-test to measure understanding of basic psychological theories, history, and research in neuroscience, sensation and perception, human development, learning, memory, cognition, abnormal, and social psychology. (PY 1103)
Direct Measure-Course Embedded (DIR-2)	25 items Pre/Post-test to measure knowledge and understanding of life-span psychology. Writing samples to demonstrate ability to search relevant psychological literature in order to address research and theoretical problems related to human development. (PY 2403)
Direct Measure-Course Embedded (DIR-3)	25 Pre/Post Test items to measure understanding of adolescent development theories and research. A Classroom Assessment Technique (CAT) will be administered at the end of the semester to provide feedback on the course, the textbook, and instructional methods. (PY 2503)
Direct Measure-Course Embedded (DIR-4)	25 Pre/Post Test items to measure understanding of child development theories and research. A Classroom Assessment Technique (CAT) will be administered at the end of the semester to provide feedback on the course, the textbook, and instructional methods. (PY 2203)
Direct Measure-Course Embedded (DIR-5)	Test items, group presentations, and peer evaluations to demonstrate application of psychological principles used in the diagnosis and treatment of psychological disorders. A Classroom Assessment Technique (CAT) will be administered at the end of the semester to provide feedback on the course, the textbook, and instructional methods. (PY 2213)
Direct Measure-Course Embedded (DIR-6)	25 Pre/Post Test items to measure understanding of personal and social development theories and research including effective coping strategies. A Classroom Assessment Technique (CAT) will be administered at the end of the semester to provide feedback on the course, the textbook, and instructional methods. (PY 2103)
Direct Measure-Course Embedded (DIR-7)	25 Item Pre/Post-Test and portfolio samples to demonstrate ability to understand research and theories regarding processes that underlie social behavior. (PY2303)
Indirect Measure-External Assessment (IND-1)	Critical Thinking CCAPS exam (Administered to students enrolled in PY 2103).
Indirect Measure- External Assessment (IND-2)	Completion Rates for all PY courses in a particular semester.

**Psychology and Sociology (Fall 2013 – Spring 2014)**

Submitted by: **Wendy Pecka, Ph.D., psychology program coordinator and ECC psychology/sociology faculty**

**Psychology Department Assessment Strategies**

There is no nationally standardized examination available for introductory level Psychology courses. The full-time instructors in the ECC Psychology and Sociology Departments collaborated to develop common pre/post-test assessments for courses offered within the program. The department developed a rotation schedule to ensure that all courses periodically collect assessment data.

Based on the 2012-2013 assessment results, additional sections of Abnormal Psychology and Social Psychology were offered at the ECC-Rolla campus. Furthermore, significant updates to the course content for Abnormal Psychology were necessary as the result of the Diagnostic and Statistical Manual for Mental Disorder-5th edition (DSM-V) release in June 2013. For these reasons, the pre/post-test for Abnormal Psychology was redesigned for the fall 2013 term. During the spring 2014 term, a pre/post-test was administered in Social Psychology courses.

**Abnormal Psychology Pre/Post-Test Results**

Students from two sections of Abnormal Psychology completed both the pre and post-test. Data from the fall 2013 academic semester are summarized below:

*Fall 2013*

- Number of Students Tested: 52
- Pre-Test Mean Score: 36.8 percent correct
- Post-Test Mean Score: 68.6 percent correct
- Percentage Change in Score: 33.8 percent correct

On average, there was a 33.8 percent increase in student scores in both sections of Abnormal Psychology.

**Social Psychology Pre/Post-Test Results**

Students from two sections of Social Psychology completed both the pre and post-test. Data from the spring 2014 academic semester are summarized below:

*Spring 2014*

- Number of Students Tested: 58
- Pre-Test Mean Score: 47.4 percent correct
- Post-Test Mean Score: 71.3 percent correct
- Percentage Change in Score: 23.9 percent correct

Additionally, a qualitative writing assignment was administered to determine how students perceived course content, including the textbook and other instructional materials used, as well as the various teaching strategies employed for specific content areas within these two courses. Faculty analyzed assessment results to make improvements to coursework offered in the 2013-2014 academic year.

### **Discussion and Recommendations**

The full-time faculty in the ECC Psychology and Sociology Departments reviewed the test results for differences in mean scores between individual sections of Abnormal Psychology and Social Psychology. There were no significant differences between student averages at the Rolla campus and the main campus. In addition to overall mean score differences, individual item analysis was conducted to determine any relationships in correct answers between pre-test and post-test responses.

Through item analysis, faculty also examined patterns of similarity in responses that were incorrect across sections of the psychology courses evaluated. The results allowed faculty to discuss content areas where emphasis may be being less consistently applied across sections of the course. The full-time instructors discussed what teaching strategies might be employed to ensure both basic and advanced concepts are covered in a more standardized manner. The qualitative information yielded valuable information about the textbooks adopted for both the abnormal psychology and social psychology courses.

The abnormal psychology text did not contain complete updated information to reflect DSM-V changes. This triggered a textbook review for the course. Consequently, a new textbook with on-line case study resources was adopted for the fall 2014 term. The Social Psychology textbook was not popular among the majority of students enrolled in both sections of the course (Rolla and main campuses). The specific reason cited most frequently was the conversational nature of the writing. There were no chapter summaries, vocabulary terms, graphics, etc. A textbook review for this course will be conducted during the 2013-2014 year keeping these comments in mind.

The proposed additions of one section of Abnormal Psychology and one section of Social Psychology to the ECC-Rolla course offerings for the 2013-2014 school year were successful. The full-time instructors ensured consistency of course content by creating a common Moodle shell for each course and utilizing similar classroom activities and assessments throughout the term. This course development model was so successful that full-time faculty plan to use this model to develop Adolescent Psychology course content, assessments, etc. for fall 2014.

Because psychology is currently the sixth most sought after major at East Central College, the enrollment numbers easily sustained the additional sections. Department faculty noted that the increase in psychology majors at ECC is consistent with the national data trends. According to the American Psychological Association, the major is typically among the top three choices nationally.

Although the 2012 department program review results recommended the need for additional full-time faculty to support growing numbers, the college has elected to ignore this particular recommendation. In fact, the recommendation was forwarded and denied in 2013. Therefore, the challenge of finding qualified adjunct faculty to cover the increasing demand for departmental coursework remains. The full-time faculty provides both informal and formal meetings with the part-time, temporary staff to help ensure consistency of course content taught as well as appropriate assessments.



## English, Foreign Language & Philosophy Division

This division submitted reports on the following academic programs and areas:

- Developmental Writing
- English
- Journalism
- Literature
- Reading



**2014 Developmental Writing Program Review Self-Study**

Submitted by: **ECC English Department Faculty**

## **I. General Program Information**

### **A. Mission and Purpose**

The mission of developmental studies at East Central College is to assist students in achieving college readiness and therefore meet individual educational goals and foster lifelong learning through interdisciplinary instruction, student-centered support services and a commitment to student success.

In particular, developmental writing at ECC focuses on developing critical thinking, reading, and writing skills to support student success in college-level composition courses.

### **B. Organization and Structure**

The developmental writing sequence consists of EN 0133 Introduction to Writing. Students who have a 17 or below on the ACT or score 79 or below on the Accuplacer Sentence Skills Assessment are required to take EN 0133 and earn a C or better before beginning the college composition course sequence.

### **C. Staffing and Credentials**

The English Department includes eight full-time faculty members at the main campus, and one full-time faculty member at the Rolla campus. All full-time faculty members have a minimum of a Master's degree, and two full-time faculty members hold a Ph.D. The department also relies on between five and 10 adjunct instructors each semester to teach EN 0133 Introduction to Writing.

Full-time faculty are required to complete a development plan annually, participate in internal development activities and remain active in several external organizations, including the Two-Year College English Association (TYCA), Conference on College composition and Communication (CCCC), and the Midwest Regional Association for Developmental Education (MRADE).

### **D. External Accreditation**

During the fall 2014 semester, the English Department will begin a self-study, which is its first step towards National Association of Developmental Education (NADE) certification of its developmental writing program.

## **II. Learning Outcomes**

### **A. Program Goals**

1. To prepare students to succeed in Comp I.
2. To improve students' abilities to read and respond to texts.
3. To develop students' skills in the writing process (including prewriting, organizing and revising).
4. To improve students' skills in basic grammar, usage, and punctuation and to give students practice in applying these skills in personal writing and in short units of expository prose.

### **B. Course/Curriculum Information**

EN 0133 is the sole developmental writing course for students who need to improve their critical thinking, reading and writing skills before attempting a college-level composition course. Emphasis is on creating several units of expository prose, developing and refining paragraph structure and pushing toward deeper engagement with ideas. They will also practice applying standard edited English (basic grammar, usage and punctuation) culminating in the production of multi-paragraph essays.

As of the writing of this document, the department has created a new course Composition Extension, which is a two-credit hour class that will allow students to co-enroll in Comp I at the same time. This class will be discussed in the Quality Improvements Section.

### **C. Recent Changes/Updates**

#### Change in Course Focus

Discussion among English faculty over the past several semesters has focused on making changes to the Introduction to Writing curriculum so there is greater alignment among the courses in the composition sequence. Because Comp I and II utilize more analytical, academic writing and base assignments more heavily upon texts (thus requiring more reading), faculty are concerned that students in Introduction to Writing need to be—and aren't currently or consistently—exposed to such requirements and types of writing during that semester. As a result, they may not be as prepared for the work they are expected to do in the other composition courses.

The department agreed to change the course description effective fall 2012, which places a greater emphasis on critical thinking, reading and writing, which figure prominently in Composition I and II. While grammar and mechanical conventions are still stressed in EN 0133, the course description reflects the importance of student engagement in the connection between reading and writing in preparation for academic literacy.

#### New Textbook:

Because of the focus on critical thinking, reading and writing, the department decided to move away from a textbook that emphasized grammar and rhetorical modes to a thematic reader in fall 2012.

### III. Students

#### **A. Enrollments**

From 2010 to 2014, the department has seen a decline in enrollment in EN 0133 Introduction to Writing. This may be due to the college's overall enrollment decline as well.

#### **Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
EN1	610	506	438	390	366

Note: Student count is duplicated.

#### **Course Frequencies**

Title	2010	2011	2012	2013	2014
# of Courses	1	1	1	1	1
# of Sections	34	32	31	25	25
# Enrolled	610	506	438	390	366
Average Section Size	17.94	15.81	14.13	15.60	14.64
# of Seats Offered	709	618	574	492	490
% Seats Filled	86.0%	81.9%	76.3%	79.3%	74.7%

In addition to enrollment in Introduction to Writing being down, the average section size is down to 16.64 students per class. The percentage of seats, while down from 86 to 74.7 percent, reflect that the classes are being offered at the most appropriate times. This leads to more questions:

- Are students more prepared for Comp I?
- Have changes in the challenge range impacted how many are taking Introduction to Writing?

#### **Class Size Frequencies**

Class Size	2010	2011	2012	2013	2014
1-10	3	5	6	4	5
11-15	7	8	10	6	8
16-20	15	17	15	15	12
21-30	9	2	0	0	0
31-40					
Over 40					

Note: Arranged sections are excluded.

The table above shows that the EN 0133 Introduction to Writing class sizes are small, and ECC has not had a section with more than 20 students in the last three years. This is due to limiting classroom capacities to 20, which many see as a best practice.

### **B. Graduates**

Given that developmental writing is not a major program of study, the department chose to look at the number of spring 2014 graduates who have placed in and taken Introduction to Writing.

Out of the 272 spring 2014 graduates, there were 22 students (unduplicated) who had taken Introduction to Writing.

### **C. Placement**

The Missouri Community College Readiness Standards instituted changes to placement cut-off scores in 2011. In fall 2011, ECC implemented the changes for entry into EN 1223 English Composition I. Placement scores were lowered from 21 to a minimum of 18 on the ACT or 80 on Accuplacer.

An extensive comparative study was completed in order to set the Accuplacer placement ranges. The study included examining placement practices at comparable institutions and an evaluation of ACT scores of students who received a four or more on the writing sample during fall 2009 and fall 2010 semesters.

Prior to using Accuplacer, the department used a writing sample in conjunction with ACT scores for placement. The change from the writing sample to Accuplacer occurred as a result of several factors. The implementation and scoring of hundreds of writing samples was work intensive. Each essay required two readers, with a third to serve as a tiebreaker. Full-time faculty participation waned after a few years, and the bulk of the responsibility fell to Learning Center staff members who already had significant time commitments.

While the writing sample as the main method of course placement has been replaced, the mechanism still does maintain a Challenge Range score of 70-79 in which students may do a writing sample—scored by Writing Center staff, as an alternative for placement. During the fall 2013 placement cycle, 38 (out of 65) students successfully challenged their score with a writing sample, resulting in a change in placement. The department must continue to examine success rates of those in the challenge range and compare them with those placed into Introduction to Writing, considering that Compass will be initiated in fall 2015.

### **D. Feedback**

This section addresses the primary mission, which is to support student success in composition courses. The data shown is from fall 2010 through fall 2012.

#### **Success rates of students who took Introduction to Writing without Reading Comprehension in the same semester**

**Intro to Writing (EN\*0133) Success Rates  
without Reading Comprehension**

Term	A	B	C	D	F	W/WX	Total	Success Rate
10/FA	24	22	16	5	16	10	93	66.7%
11/SP	1	1	3	5	5	6	21	23.8%
11/SU			2			0	2	100.0%
11/FA	15	26	25	5	21	8	100	66.0%
12/SP	2	2	5	2	8	4	23	39.1%
12/SU						1	1	0.0%
12/FA	15	29	15	2	9	11	81	72.8%
<b>Total</b>	<b>57</b>	<b>80</b>	<b>66</b>	<b>19</b>	<b>59</b>	<b>40</b>	<b>321</b>	<b>63.2%</b>

\*Includes duplicates. For example if someone took EN\*0133 in 10/FA and again in 11/SP, they are counted in both.

The success rates of students who took Introduction to Writing without taking Reading Comprehension in the fall semesters have remained above 60 percent consistently, while spring semesters have been considerably lower. The significant difference in the fall and spring success rates merits further research into the support system that the department has for these students.

**Success rates of students who took Introduction to Writing and Reading Comprehension in the same semester**

**Intro to Writing (EN\*0133) Success Rates**

Term	A	B	C	D	F	W/WX	Total	Success Rate
10/FA	37	50	47	13	45	33	225	59.6%
11/SP		3	3	2	8	2	18	33.3%
11/SU		1				0	1	100.0%
11/FA	28	43	41	10	42	14	178	62.9%
12/SP			1	2	2	4	9	11.1%
12/SU						1	1	0.0%
12/FA	17	43	41	15	21	18	155	65.2%
<b>Total</b>	<b>82</b>	<b>140</b>	<b>133</b>	<b>42</b>	<b>118</b>	<b>72</b>	<b>587</b>	<b>60.5%</b>

\*Includes duplicates. For example if someone took EN\*0133 in 10/FA and again in 11/SP, they are counted in both.

Students who took Introduction to Writing and Reading Comprehension during the same semester did slightly worse than students who took only Introduction to Writing in the fall. In comparison, students who took Introduction to Writing and Reading Comprehension succeeded at a similar rate as those who did not in the spring, under 34%, indicating that there may be many non-academic, non-cognitive issues at play for these spring start developmental students.

The department also needs to look at how many of these spring students either failed or dropped their fall classes and why they are not succeeding in the spring. The number of withdrawals dropped since ECC become an attendance-taking institution.

**Successful completion of Introduction to Writing compared to first attempt of English Composition****Intro to Writing (EN\*0133) and English Composition I (EN\*1223)**

EN*1223	A	B	C	D	F	W/WX	Total	Success Rate
A in EN*0133	19	31	8	2	6	5	71	81.7%
B in EN*0133	9	36	32	13	16	18	124	62.1%
C in EN*0133	3	20	35	10	26	14	108	53.7%
<b>Total</b>	<b>31</b>	<b>87</b>	<b>75</b>	<b>25</b>	<b>48</b>	<b>37</b>	<b>303</b>	<b>63.7%</b>

\*Includes last attempt in EN\*0133 and first attempt in EN\*1223.

The table above shows that students who successfully complete Introduction to Writing have on average a 63 percent chance of succeeding in Comp I with a C or higher. The data also reinforces the claim that students who earn an A or B in Introduction to Writing are likely to succeed in Comp I. However, having 85 out of 303 successful Intro students not pass, drop or be administratively dropped from Comp I is something that the department must explore and do more research on the placement scores of these students.

**Successful completion of English Composition I compared to first attempt of English Composition II****English Composition I (EN\*1223) and English Composition II (EN\*1333)**

EN*1333	A	B	C	D	F	W/WX	Total	Success Rate
A in EN*1223	6	6	5	1	4	1	23	73.9%
B in EN*1223	5	29	15	8	6	1	64	76.6%
C in EN*1223		13	19	5	11	10	58	55.2%
<b>Total</b>	<b>11</b>	<b>48</b>	<b>39</b>	<b>14</b>	<b>21</b>	<b>12</b>	<b>145</b>	<b>67.6%</b>

\*Includes last attempt in EN\*1223 and first attempt in EN\*1333.

Of the 587 students who took Introduction to Writing and Reading Comprehension during the same semester over a two-year period (fall 2010-fall 2012), 303 successfully completed Introduction to Writing and went on to attempt Comp I. Of the 303 students who attempted Comp I, 145 successfully completed the course and attempted Comp II. The success rate of students who passed Comp II was 67.6 percent as compared to 63.7 percent passing Comp I. The department must continue to work to improve Introduction to Writing success rates as well as student success rates in Comp I and II.

**IV. Advisory Committee**

Developmental writing does not have an external advisory committee, but ECC does have an internal developmental advisory committee, and recently hired a developmental education coordinator. Both the committee and the coordinator could play key roles in addressing some of the issues the department faces.

## **V. Assessment Plan and Data**

In 2008, the English Department implemented an embedded assessment tool. The Common Assignment is administered in all courses in the Composition sequence after the 12th week of the semester. The Common Assignment (CA) intends to examine student performance on the course specific competencies and also to look at how students are progressing through the sequence. Elements highlighted include content (i.e. appropriateness to assignment, engagement and critical thinking, effective use of support); organization (distinct paragraphing, logical order, use of transitions); style (distinctive voice, word choice, diction) and writing conventions (MLA formatting, grammatical correctness, usage).

Copies of the CA are collected from each section of Introduction to Writing on a semester-based rotation with the other writing courses for a blind reading of a randomly chosen sampling across sections. Full-time and adjunct English instructors participate with three readers for each essay. Essays are scored using a 25-point rubric that is intended to measure student effectiveness in the issues the competencies listed above. A score of 18 on the CA is considered passing. Essays from all levels use the same rubric to establish a sense of continuity.

Comparing the fall 2010 to fall 2011 common assessments of the composition sequence, Introduction to Writing had the most promising results, improving its pass rate from 44.4 percent in 2010 to 61 percent in 2011. Introduction to Writing students scored above average in organization and style and below average in writing conventions, which is similar to the scores by Comp I and II students. Fall 2011 was the last time the department collected a common assignment for Introduction to Writing as faculty members are working on revamping Comp I. They plan to collect more assessments in spring 2014.

## **VI. Facilities**

Introduction to Writing classes have been held at all locations including Union, Rolla, Sullivan, Washington and Warrenton. Access to computer labs that may be conducive to teaching a composition course is limited at Union and at the satellite locations.

## **VII. SWOT Analysis**

The department conducted a self-study of its strengths, weaknesses, opportunities and threats in August 2014, which is summarized below:

### ***Strengths***

- A variety of dedicated instructors teach the class, so there is some latitude in range of pedagogical approaches based upon expertise (Note: at the same time, this strength could be a weakness).
- Hiring a full-time developmental education coordinator with a background in supplemental instruction, peer tutoring and non-cognitive development.
- Creating more of a focus on reading and responding to texts improves student success across disciplines and allows for transfer of skills to Comp I and II.
- Willingness of instructors to innovate curriculum to connect reading and writing instruction including the eight-week Reading Comprehension and Introduction to Writing classes in Rolla and the Connected Reading and Writing class in Union.
- Use of a learning community and the Learning Center to build a student-based support system to help motivate students to succeed in Introduction to Writing and other classes.
- The Developmental Writing program has only one level of Introduction to Writing, so there is a shorter pipeline to Comp I than at other institutions.

### ***Weaknesses***

- Introduction to Writing should be taught by instructors who have the aptitude, are current in research/best practice and have time/inclination to work with the non-cognitive aspects of Intro students because it is one of the most challenging courses to teach in the curriculum.
- Lack of on-going faculty development for just those teaching Introduction to Writing.
- Only 60 percent pass Introduction to Writing, and only 70 percent of those students pass Comp I.
- Need more functional computer lab space for Introduction to Writing classrooms.
- While having just one level of Developmental Writing is a plus, it creates a wide range of abilities in one classroom.
- Maintaining Introduction to Writing classroom caps to 20 students.

### ***Opportunities***

- Embedded non-cognitive/affective assessment and skills development.
- The developmental education coordinator could have workshops and/or seminar for those interested in improving teaching.
- Utilize multiple opportunities for grant writing and program development to strengthen program.
- Developing a core body of "Introduction to Writing instructors" would allow some group meeting times or coordination of ideas and offerings.

### ***Threats***

- Political pressures like HB 1042 to push students through the academic program challenge the notion that meaningful growth takes time.
- Economic and non-cognitive pressures on students limit the time they spend on course work as well as the time they can spend in college.
- Community misperceptions that pre-requisites should be dissolved and students "allowed to fail" threaten the scope and sequence of the curriculum.



## **VIII. Quality Improvement Efforts**

### ***Eight-Week Reading Comprehension and Eight-Week Introduction to Writing Courses in Rolla***

Beginning in fall 2012, a full-time instructor in Rolla decided to revamp the packaging and content of Reading Comprehension and Introduction to Writing. The span of the courses is eight weeks (instead of sixteen). Reading Comprehension is offered the first eight weeks; Introduction to Writing is offered the last eight weeks. Reading and writing is integrated in both classes—extending beyond the college's adopted reading textbook and weaving in longer reading assignments from different disciplinary perspectives. The strategy has increased retention in Reading Comprehension and Introduction to Writing and has been offered seven times in the last six semesters.

### ***Connecting Reading and Writing in Union***

After attending the Missouri Completion Academy sponsored by Complete College America in fall 2013, ECC decided to create a five-credit hour, combined reading and writing course for students. The new Connecting Reading and Writing is designed for students who place into both Introduction to Writing and Reading Comprehension. The curriculum focuses on a recursive view of interdisciplinary reading and writing to help improve students' skills and success in Comp I and in other courses. First piloted in spring 2013 with low enrollment, it was offered again in fall 2013 with 14 students.

### ***Summer Bridge***

In summer 2013, the Developmental Advisory Committee created an English Summer Bridge program. The program is free and open to any students who placed into both Reading Comprehension and Introduction to Writing, and is taught by instructional staff in Union and English faculty in Rolla. Each session lasts two weeks. While enrollment in the Bridge program was small during the 2013 and 2014 offerings, most participants went on to test out of both developmental classes. Because the program has been identified as a best practice, student participation in the English Summer Bridge programs will be expanded. Instructors will work closely with advising, admissions and the Learning Center to market it to potential students.

### ***NADE Certification***

During the fall 2014 semester, the English Department began the process of National Association of Developmental Education (NADE) certification. The first step is to conduct a self-study, which is being performed by an interdisciplinary committee of English and math faculty, instructional staff and Learning Center staff.

### ***Accelerated Introduction to Writing***

To help improve success rates for Introduction to Writing students, ECC piloted a Comp I Extension class in spring 2014. It was modeled after the Accelerated Learning Program from Baltimore County Community College—a three-credit Comp I and a two-credit Developmental Writing course. Students who place into Introduction to Writing are eligible to co-enroll in Comp I. The goal of this model is to increase the number of students who obtain the skills necessary to pass Comp I within one semester rather than two, a time frame that will allow students to enroll in classes that require Composition I as a pre-requisite.

## **IX. Summary**

Since roughly 30 percent of East Central College students are placed into and take Introduction to Writing, it is important that it is a beneficial and worthwhile experience. In the past six years, the English Department has moved Introduction to Writing 's focus towards more integration of reading and writing to align it closer to the college-level composition sequence.

In recent years, enrollment in Introduction to Writing has dropped and the class sizes are declining. Adjunct faculty members teach most of these classes. While the students are improving their pass rates on the common assignment assessment, overall success rates (defined as earning a C or higher) in Comp I have stayed the same. The English faculty believe they are preparing their students for success in Comp I, but are not satisfied with the completion rates of their students in Comp II and in the spring Introduction to Writing offerings.

As the department moves forward to improve student success rates in the composition sequence and beyond, they plan to continue finding ways to emphasize the connection between reading and writing (and no longer treat a deficit in reading separate from the deficit in writing). They also plan to scale up acceleration pilots like the Summer Bridge and the Comp I Extension class. Because Developmental Writing is one the most challenging and important courses to teach in their curriculum, the department will pursue both internal and external professional development for adjunct and full-time faculty focusing on the teaching of developmental writing students and their non-cognitive issues.

### **English**

Courses Reviewed: EN 0133 Introduction to Writing, EN 1223 English Comp I and “W” Courses (fall 2013 – spring 2014)

Submitted by: **Sue Henderson, English instructor and composition/writing coordinator**

### **Overview**

#### Introduction to Writing

Several pilots were run to determine what different models of developmental writing might best serve ECC students. As part of the Introduction to Writing Program Review in fall 2014, the department is examining and evaluating these different options.

Several factors influenced the Introduction to Writing pilots, including ECC’s commitment to becoming a completion institution, a NADE certification process and general malaise in the English Department regarding student success beginning in developmental writing through the composition sequence.

#### English Comp I

Department faculty revised CI Learning Objectives to better reflect current practice as described in the Council for Writing Program Administrators’ Outcome Statements and chose a new CI text in accordance. The department is also revising the Common Writing Assessment mechanism for implementation spring 2015.

Curricular redesign in Comp I resulted from several years of unsatisfactory common assignment results and a sense that the department’s CI Learning Outcomes did not align with the course assessment.

#### “W” Courses

CAAP Writing was administered to select Freshman Seminar classes in fall 2013. CAAP Writing will be administered in several W courses in spring 2015 to assess writing improvement over time. A “W” faculty consultation process was developed to help “W” faculty self-assess how they are meeting the “W” requirements and identify room for instructional improvement.

All assessment work for “W” courses grew out of the AQIP Writing Project.

### **Results/Impact**

#### Introduction to Writing

Several new models for developmental writing are being explored in the department. Faculty members who are committed to new approaches are enthusiastic about trying new avenues to strengthen student success. Work with the developmental education coordinator has help strengthen resolve and encouraged exploration. Unfortunately, enrollment numbers in pilots have been too small to gather meaningful data about how effective these models have been to date.

#### English Comp I

Faculty members have a new reader and a revised handbook for use in CI that better reflect the learning outcomes. As the common assignment is revised, the on-going conversation and consensus building activities should prove useful for then tackling Intro and CII revisions.

“W” Courses

W Courses: No identifiable impact at this point.

**Context**

The 2013-2014 academic year saw much attention paid to the first two courses in the composition sequence: EN 0133 Introduction to Writing and EN 1223 Composition I. The faculty met almost weekly during the late fall and spring terms to address concerns that have lingered for several years over dissatisfaction regarding success rates and student performance on the common assignment, the department’s main mechanism for program assessment. Common assignments were not read and scored during this academic year as the department focused instead on revising the Comp I course competencies and piloting several new Introduction to Writing models.

An additional assessment venture was undertaken as part of the AQIP Writing Project. Through this project, methods were developed to assess the efficacy of writing instruction and learning in discipline - based classes that emphasize writing as a tool for learning. The project committee developed surveys to gauge student and faculty perceptions of writing instruction in the disciplines and developed an assessment strategy that would measure student learning using the CAAP: Writing in Freshman Seminar in fall 2013 and an embedded writing assignment in “W” classes in spring 2015. The project also developed a faculty consultation process to measure classroom practice and provide suggestions for improvement.

**Summary**

Since the implementation of the embedded Common Writing Assignment across the course sequence, the department has struggled with both the logistics of scoring and the interpretation of results. Despite not coming to definitive conclusions about the particular competencies that needed addressing, by spring 2013, many agreed that the department needs to better align the CI course competencies with the common assignment requirements. Part of the issue was that the common assignment requirements reflected more current classroom practices but did not accurately reflect the Comp I competencies, which were last revised in 2006. And, the common assignment rubric currently used by faculty did not align clearly with either of the other two components.

The department also needed to close the loop in the assessment process and make specific revisions to the course competencies that had been in place since 2006. In doing so, faculty have aimed to more accurately measure improvement in student writing. Given that faculty had collected common assignments every semester since its inception, the department decided to suspend scoring sessions for the common assignment until concerns over competencies could be addressed.

The department spent most of the academic year, with more intensive and frequent meetings occurring in spring 2014, discussing other examples of Comp I competencies and outcomes. These included the Council for Writing Program Administrators Outcomes Statements for First Year Composition, documents about the Common Core English Language Arts Standards for grades 11 and 12, other two- and four-year institutions and faculty’s individual classroom practices. What resulted was nearly full consensus about what faculty members feel students need to know to be successful in Comp I and subsequent composition and college courses that involve writing.

As revisions to Comp I were progressing, the department was also participating in several pilots and beginning a program review of Introduction to Writing. The pilots grew out of discussions regarding data

gathered during a 2012 Developmental Studies report. Data collected examined the correlation between student success in Reading and Composition I. Following an examination of the data and research into alternative models for developmental writing, faculty on the Union and Rolla campuses developed three new models for EN 0133 described below.

As a result of the department's desire to better align instruction and curriculum in the courses of the Composition sequence, many changes are currently being implemented with more to come. Faculty in general feel encouraged about the movement but data is not yet available that allows them to draw conclusions about the efficacy of the changes.

In terms of the AQIP Writing Project, there has not been the follow-through faculty wanted regarding interpretation of survey data or the CAAP results. The embedded course assignment still needs to be developed for spring 2015 implementation, and no "W" faculty has yet gone through the consultation process. Because of changes being made to the Common Learning Objectives, the committee members felt that some of the work done for the project may not be relevant to the new General Education model. But the mechanisms are ready for use.

### ***Other Departmental Activities***

#### The Composition Summit

The Composition Summit, started in spring 2013, is an opportunity for the full-time faculty and as many adjunct faculty as can, to gather over lunch and discuss current issues facing the department and the composition sequence. While the department has regular meetings, the summit allows faculty to widen the conversation and often get new insight into situations they have been struggling with. As a result of the first two summits, revisions to the Comp I competencies and plans to revise the common assignment content and method of implementation have emerged. The summit is an important component of the department's assessment process because it allows more stakeholders to participate and take ownership of changes.

#### Introduction to Writing Program Review

The Introduction to Writing Program Review has been underway since spring 2013. The original start date was pushed back because several faculty participating in the review were also part of a NADE certification process. A SWOT analysis was conducted in 2013, portions of the self-study have been completed, and the site visit is scheduled for October 2014. A separate update will be submitted in the next Assessment report.

#### Summer Bridge

Modeled after the Math Department's Summer Bridge, the English Summer Bridge ran in summer 2013 for the first time. While numbers of participants were small, some follow-up of students indicate a degree of success for those students retesting out of Introduction to Writing into Comp I and a successful completion of Comp I in fall 2013.

#### Introduction to Writing Pilots

Since Fall 2012, faculty on the Rolla campus have been offering accelerated EN 0203 Reading Comprehension course that meets in the first eight weeks of the semester followed by an accelerated EN 0133 Introduction to Writing meeting in the second half. Students typically enroll in both sections. The department is often able to run two sections per semester. The two different courses are often, but not always, taught by the same instructor.

In spring 2013, in coordination with the Development Studies Program, several faculty on the Union campus implemented a Student Success Learning community, which ran for two semesters. The learning community was for students who placed into Reading Comprehension, Introduction to Writing and Pre-Algebra. Students who decided to participate in the pilot enrolled in designated sections of each of these three courses and specific sections of Basic Computer Skills, and a two credit hour Foundation Seminar. Students also participated in mandatory study groups.

In spring 2014, a linked five-credit hour course, Connecting Reading and Writing, was piloted. The initial pilot was team-taught by a reading instructor and a composition instructor. Because enrolment numbers were small (four students), quantitative data examining success rates compared to regularly structured Introduction to Writing courses is not available. However, faculty members who have participated in these pilots can offer qualitative data regarding their effectiveness.

In fall 2014, the course is again being taught, as part of another learning community. This time, students in the community are to also enroll in Foundation Seminar, Pre-Algebra (section LC) and either Oral Communications or Public Speaking. Students in these classes also participate in mandatory study groups. With enrollment currently at 14 students, perhaps some comparisons can be made after the term finishes.

Each of these offerings, along with a new model of Accelerated Composition I being offered in spring 2015, show that the English Department is committed to exploring and developing different approaches to Developmental Writing that will provide students with the most effective and efficient way to learn how to write for college and accomplish their college writing requirements.

The AQIP “W” Project provided several faculty development opportunities during the past year including sessions fall and winter during in-service weeks and an afternoon workshop in spring 2014.

### **Next Steps**

The department is in the process of revising the Comp I Common Assignment for implementation in spring 2015. The logistic of a department-wide assessment may also need review to determine if the process is in any way hampering results or if faculty might develop a more efficient procedure.

After the Introduction to Writing Program Review, the department will look at course competencies and curriculum revisions similar to the process for Comp I course redesign. That conversation will take place in the larger discussion of the College Completion schema. Certainly, gathering and analyzing data on student retention and completion through the Composition sequence is imperative. Despite small enrollment numbers, the department must look at which models seem to work best for ECC students and which ones may merit scaling up.

Again with the uncertainty of where the “W” designation will fit into the Common Learning Objectives, what follow-through on the project developments remains is difficult to say. The “W” classes and CAAP Writing Assignment are slated for spring 2015, and are still scheduled for an embedded writing assignment across disciplines as possible. In fall 2015, the department will begin to look at how Comp II can be better aligned with the other courses and determine if a literature-based approach is still best practice. Part of that discussion will include what it means for students to be academically literate in the 21st century. The department needs to review of English Assessment Plan and modify the assessment schedule for the course sequence.



### **Journalism**

Courses Reviewed: JR 2033 Diversity in the Media (fall 2012 – fall 2013), JR 2013 News Writing (fall 2013 – spring 2014)

Submitted by: **Leigh Kolb, English/journalism instructor and journalism advisor**

#### **Overview**

Diversity in the Media (JR2033) and News Writing (JR2013) are both classes that are articulated with the University of Missouri – Columbia’s Journalism School as part of ECC’s Articulation Agreement with the Journalism School. Diversity in the Media is articulated with MU’s Cross-Cultural Journalism; News Writing is articulated with MU’s News. Additionally, ECC’s Intro to Mass Media Communication (CT 1033) is articulated with MU’s Principles of American Journalism.

#### Diversity in the Media

Diversity in the Media’s core assessment involves holistically scored, research-based analytical essays. The first semester it was taught (fall 2012), it was team-taught by a journalism and communications faculty. The final assessment was a presentation. The communications faculty left ECC, and the textbook was updated the final assessment now focuses on media analysis in written essays.

#### News Writing

This course employs two qualitative assessments that are created from MU’s own test banks. These are high-stakes assessments; the parameters are attached. Each semester, the Grammar Exam has been a struggle for the vast majority of students. Grammar instruction must be more rigorous; a new workbook has been adopted for spring 2015 with this goal in mind. The AP Exam typically has a higher success rate. See data below.

#### Future Plans

Both of these courses have been taught twice (Diversity in the Media is taught in the fall; News Writing is taught in the spring). The journalism program review is set to begin in January 2015, and after each class will have been taught three times and an exhaustive qualitative and quantitative assessment report will be written.

The ECC Journalism Program needs to have some jurisdiction over the Intro to Mass Media Communications class, which is taught by full-time faculty and adjunct faculty. Since this course is articulated with MU as a pre-Journalism course, there needs to be an amount of collaboration between journalism and communications faculty (and a limited amount of oversight by the journalism program to ensure certain standards are met and that assessment data is collected with the Journalism course assessment). As it stands, there is some basic collaboration between full-time faculty members, but not formally.

#### **Articulation Agreement and Transfer**

East Central College entered into an articulation agreement with the University of Missouri (MU) – Columbia’s School of Journalism in the summer of 2011. Students who receive an Associate of Arts in Journalism from East Central College can seamlessly transfer to MU. They need to spend one semester at MU taking one more core pre-journalism course and establishing an MU GPA, and they can apply for admission into the Missouri School of Journalism. The faculty worked to ensure that individual courses would also articulate seamlessly, in the cases when students take coursework at ECC and transfer before

completing the AA degree.

One student graduated with an AA in journalism in spring 2013 and did not transfer.

One student completed almost all of her coursework at ECC (she couldn't complete the AA because Spanish III wasn't offered) and transferred to MU in fall 2014 and is on track to enter the journalism school in the spring.

Three students are now on track to receive their AA in journalism in spring 2015 and plan to transfer to MU.

The AA program of study itself will be under review in 2015 (the foreign language requirement and reverse transfer possibilities will be specifically looked at).

### **Results/Impact**

The Diversity in the Media course attracts students from various fields of study, and it's an incredibly relevant course to all students. The journalism faculty member foresees this becoming a more popular course in the future. The focus will always be on media analysis, and projects and assignments will continue to be designed so that all students are experiencing the rigor and meaningful coursework that will properly prepare them for transferring. Sometimes, this means giving specific instructions to journalism majors, as their preparation to be media producers might differ from those who are focusing on media literacy.

News Writing is not an appropriate elective for students from all fields of study. This is a challenge due to low enrollment. To keep it in line with MU's News course, News Writing must be taught in a way that prepares students to be journalists. Students who are journalism, English, mass media or public relations majors are well served by this class, but the rigor and expectations of the class are not appropriate for a student simply looking for an elective. Navigating this in the future—the fact that the class is for specific majors, but also needs to be populated—is an opportunity for marketing and advising the class properly. The high-stakes assessments (adopted from MU) are designed to allow only the highest performing students to enter MU's Journalism School. This assessment is necessary for Journalism students who are transferring to MU; it is appropriate for English majors; it is far too punitive for other majors.

### **JR 2013 News Writing**

From the syllabus:

#### Grammar Exam

You are required to pass a 100-point grammar exam this semester with a grade of 80 or higher before passing the course. Not passing the Grammar Exam this semester will result in an incomplete. You will either need to re-take the class at ECC or MU before admittance into MU's Journalism School. If you do not pass the first time you take the test, you will have two more attempts to pass. If you receive a score of 80 or above the first time you take the test, you cannot retake the exam.

#### Associated Press Style Exam

You are required to complete a computerized 100-point AP Style Exam and receive at least a 70 percent to pass the course.



## Section 4 – English, Foreign Language & Philosophy Division Reports

\* These tests are created from MU's test banks. They are multiple-choice. The students are allowed to use their Associated Press Stylebook for the AP Style Exam.

### Spring 2013

*Grammar Exam Passing Rates (five students):*

- First exam – two students passed
- Second exam – two students passed
- Third exam – one student passed

*AP Exam Passing Rates (five students):*

- First exam: 70 percent or above – three students \*

\* One journalism major received a 60 percent on the AP Exam. He was given an “incomplete” in the course, and passed the AP Exam when the course was taught in spring 2014 to complete the requirement. The other student who did not pass received a “D” in the course and was not moving on to MU.

*Final Grade Breakdown (five students):*

- A – 0
- B – 3
- C – 1
- D – 1

### Spring 2014

(Course name changed from “News and Feature Writing” in 2013 to “News Writing” in 2014 to reflect curriculum)

*Grammar Exam Passing Rates (nine students):*

- First exam – one student passed (90 percent)
- Second exam – two students passed (83 percent, 86 percent)
- Third exam – one student passed (83 percent)
- Fourth exam – two students passed (93 percent, 81 percent)\*

\* The fourth exam was administered to students who had close scores and planned to transfer to MU; this will not be repeated in future semesters.

Two students did not receive an 80 percent on the test, but were not transferring to MU (and otherwise passing the course). One student failed the course.

*AP Exam Passing Rates (nine students):*

- First exam: 70 percent or above - six students\*

\* All Journalism majors passed the AP Exam. Those who were not Journalism majors (and otherwise passing the course) were allowed to move forward. This practice of exceptions should not continue.

*Final Grade Breakdown (nine students):*

- A – 1
- B – 4
- C – 2
- D – 1
- F – 1

***JR 2033 Diversity in the Media***

Fall 2012

*Final Assessment: Diversity in the Media Final Project*

See section below.

*Grade Breakdown (11 students):*

- A – 4
- B – 3
- C – 3
- D – 1
- F – 0

*Final Grade Breakdown (13 students):*

- A – 2
- B – 6
- C – 2
- D – 1
- F – 2

Fall 2013

*Final Assessment: Diversity in the Media – Final*

See section below. It was revised to focus more on media literacy, utilizing the new textbook.

*Grade Breakdown (nine students):*

- A – 5
- B – 3
- C – 1
- D – 0
- F – 0

*Final Grade Breakdown (nine students):*

- A – 4
- B – 3
- C – 2
- D – 0
- F – 0

A new textbook was adopted in fall 2013, which helped restructure the course in a way that students responded well to in terms of critical, analytical thought. Final assessment is already under review and revision for fall 2014.

### ***Diversity in the Media Final Project – Fall 2012***

Your final project will consist of two parts. You will need to show your analytical skills and a consumer, and your creative skills as a producer.

Choose the appropriate prompts (depending on your major/interest area).

#### Entertainment Media

- Write a review of a recently released film or television show. You will analyze the film through the lens of this course and look at issues of class, race, gender, ethnicity, sexual orientation or religion (pick one or two, not all). Discuss in depth the messages that the media sends to viewers and the potential effect of those messages. You must reference concepts from the text and have at least one other outside source.

The review should be at least two double-spaced pages and must be in professional, journalistic language. Your goal is to inform and persuade viewers as to the quality and meaning of a piece of media. For example of this kind of review, see links on Moodle.

- Pitch a film or television show that somehow deals with issues of class, race, gender, ethnicity, sexual orientation or religion (pick one or two, not all).

In roughly one typed page, provide a logline, a paragraph about your main characters/story, and a list of resources you would use to ensure you handle diversity properly. Include a list of sources/resources you would contact or use for research.

#### Journalism

- Write a review of a recent substantial news or feature story from a national or local publication. You will analyze the article through the lens of this course and look at issues of class, race, gender, ethnicity, sexual orientation or religion (pick one or two, not all). Discuss in depth the messages that the article sends to viewers and the potential effect of those messages. You must reference concepts from the text and have at least one other outside source.

The review should be at least two double-spaced pages and must be in professional, journalistic language. Your goal is to inform and persuade viewers as to the quality and meaning of the article. For example of this kind of review, see links on Moodle.

- Pitch a story that deals with issues of class, race, gender, ethnicity, sexual orientation or religion (pick one or two, not all). This story should have a local focus (in the Franklin County area). It may be an investigative piece, a feature story or a news article.

In roughly one typed page, provide a lead, a paragraph (or nut graph) about your story, and a list of sources you would contact for research and interviews.

In addition to the written component of this assignment (which will be 75 percent of the grade),

you will also pitch your media idea to the class. Use three to five PowerPoint slides to highlight the main points and your resources/sources, and be prepared to “sell” your story to the class.

Use the attached articles as references and guides (there are supplementary links on Moodle, as well).

### ***Diversity in the Media – Final – Fall 2013***

*You will write two separate essays using the two prompts below, and a pitch.*

1. Do a comparative analysis of political/news websites, focusing on African Americans. Visit the following websites: The Huffington Post (left-leaning), Townhall (right-leaning), and The Root (African American-focused).

Consider the rhetorical triangle – speaker/writer/producer, audience, and subject.

How do these sites use words, images, and multimedia technologies to speak to their respective audiences? Where are the sites similar? How are they different?  
www.huffingtonpost.com, www.townhall.com, www.theroot.com

You will have at least three sources for this essay (the websites); do further research as needed—use your textbook extensively.

2. Define and consider the concept of the male gaze. Why is it such a pervasive form of vision in advertising and other forms of media? Give specific examples. How does the concept of the male gaze bleed over from advertising into entertainment and news media? What does this mean for audiences (young and old, male and female) and society as a whole?

You should have roughly three sources for this essay—use your textbook, and give specific examples.

Your essays should be in MLA style, utilizing in-text citations and Works Cited pages. Times New Roman font size 12, double-spaced, etc.

3. The third and final part of your assignment is a pitch. Pitch a news story that you could conceivably write that has a local angle—on campus or the surrounding community. This should be about one page. Use the provided handouts to effectively pitch. What would the angle of the story be? Who would you talk to, and why? What difference could the story make?

### **2014 Literature Program Review Self-Study**

Submitted by: **ECC English Department Faculty**

#### **Overview**

The ECC English Department is currently reviewing and revising the current system of assessment in the ECC Literature Program. The assessment data the department has was only a snapshot of one assessment cycle, and the parameters of the assignments that were collected and assessed aligned the literature courses with the composition assessment plan. (1000-level Literature courses were assessed using the Comp I common assignment and rubric; 2000-level Literature courses were assessed using the Comp II common assignment and rubric.) The class designations of “freshman level” or “sophomore level,” along with the corresponding assessment parameters, are all under review as per the recommendations of the 2014 Literature Program Review.

#### **Results/Impact**

The following actions are in process:

- Review current course listings and the 1000 or 2000 level associated with the course.
- Establish reasonable pre-/co-requisites for courses after designating them 1000 or 2000.
- Develop a common assignment unique to literature courses.
- Develop a comprehensive assessment plan unique to literature courses.

#### **Supporting Evidence/Information**

Below is the pertinent data from the 2014 Literature Program Review. The observations and recommendations from the Literature Program Review Committee are forthcoming; however, the conversations in the program review meeting made it clear that external and internal guests and stakeholders saw a great need for developing more comprehensive Literature program common assignment(s) and assessment plans.

## Selections from the East Central College Program Review for Literature 2014

### **Program Description**

The department offers three complementary tracts of study: developmental courses (reading, writing and vocabulary development); composition (general, technical and creative writing); and literature studies. Eight full-time and 25-30 adjunct faculty members teach these courses. The division chair also teaches one course per semester.

The department catalog lists 25 literature courses, any of which may be used to satisfy part of the nine-hour humanities requirement for the General Education program. The department has informally grouped these courses into four categories—foundational surveys, genre studies, special interest topics and cultural/social awareness.

In 2012, the department drew up a plan to rotate these offerings so that courses from each category are offered among the eight to 10 literature courses on the fall and spring schedules, varying the choices students have on the main campus and at satellite locations. While this plan has not been rigorously followed, it does provide a general set of guidelines to help determine a course rotation schedule.

Over the past five years, 203 literature sections have been offered in day, evening, and online environments: 29 of these were wholly online; 8 were web hybrid; the remaining 166 were face-to-face. Seated offerings by location include the following:

- Union: 94 sections
- Rolla: 41 sections
- Sullivan: nine sections
- Washington: seven sections
- Warrenton: one section

In addition, 14 dual-credit sections were offered through Union and Rolla High Schools.

The headcount enrolled in literature courses from summer 2008 through summer 2014 was 3,116. From 2009 to 2013, 2,338 of those students were enrolled. Average enrollment per literature section was 18 students, with 80.1 percent of the offered seats filled. Successful course completion rate (grade C or higher) was 77.77 percent for these five years (arranged sections are not included in this data).

Courses that have been offered most frequently, and therefore have served the largest number of students since summer 2008, are the following:

- |   |                          |
|---|--------------------------|
| ▪ EN 2033 Literature for Children       | 42 sections—780 students |
| ▪ EN 1903 Classical Mythology           | 17 sections—316 students |
| ▪ EN 2203 American Literature Survey I  | 19 sections—251 students |
| ▪ EN 2213 American Literature Survey II | 19 sections—229 students |
| ▪ EN 1603 Fiction                       | 14 sections—202 students |

## Section 4 – English, Foreign Language & Philosophy Division Reports

Courses that have been offered three or fewer times in the past five years are the following:

- |    |                                     |                            |
|----|-------------------------------------|----------------------------|
| 1. | EN 2403 Literature of Fantasy       | three sections—67 students |
| 2. | EN 1703 Drama as Literature         | two sections—23 students   |
| 3. | EN 2303 Latino/Latina Literature    | one section—17 students    |
| 4. | EN 2343 Literature of Autobiography | one section—16 students    |
| 5. | EN 1803 Art of the Novel            | one section—11 students    |
| 6. | EN 2123 African American Literature | one section—11 students    |
| 7. | EN 2703 Special Topics              | three sections—4 students  |
| 8. | EN 2711 Special Topics              | one section—one student    |

Limited section offerings or low student enrollment should not necessarily be interpreted as a weakness of or lack of interest in a particular course. Several factors influence whether a course is offered and whether students enroll: availability of an instructor; day of the week and time a course is offered; promotion of courses by student advisors; position of a course on the rotation schedule; and clarity of the course description itself.

### **Assessment**

#### Quantitative Data

##### *Departmental Common Assessment*

All literature courses are W-courses, indicating that emphasis is placed on writing (a designated skill area in the college's General Education sequence). Thus, written artifacts are periodically collected to gauge the quality of student thought and analytic depth. To allow for some comparison between data collected in Composition I and Composition II, the same departmental rubrics are used for literature courses: essays submitted for 1000-level literature courses are scored using the Composition I common assessment rubric; essays submitted for 2000-level literature courses are scored using the Composition II common assessment rubric. Composition I is listed as a pre- or co-requisite for all literature courses.

The most recent data compiled for literature courses comes from fall 2012. Essays were collected from six courses—two 1000-level and four 2000-level courses. Two readers (drawn from a pool of full-time and adjunct faculty) scored each essay holistically to determine pass/fail. In cases wherein the readers disagreed, the essays were submitted to a third reader to break the tie.

Limited norming processes were conducted to ensure reliability and validity of results. Readers on main campus had some interaction with each other (to discuss desired traits and the courses themselves). Readers at satellite locations were sent packets of essays and rubrics for blind readings. Those off-main-campus readers were not involved in the informal discussions conducted by on-campus readers.

Section 4 – English, Foreign Language & Philosophy Division Reports

The following table indicates the pass/fail rate on the holistically-scored essay.

Course	Students	Pass	Fail	% Pass
EN 1613 World Fiction	17	12	5	71%
EN 1703 Drama as Literature	18	9	9	50%
EN 2003 Literature for Children	19	3	16	16%
EN 2103 Survey of British Literature	21	3	18	14%
EN 2213 Survey of American Literature	12	7	5	58%
EN 2323 Women's Literature	10	7	3	70%
<b>Totals</b>	<b>97</b>	<b>41</b>	<b>56</b>	<b>42%</b>

Further breakdown of this information by writing trait reveals the following:

1000-Level Literature Courses	Mean	Median	Mode
Content (range 0-10)	6.1	5	7
Organization (range 0-5)	3.7	3.5	4
Style (range 0-5)	3.7	3	4
Writing Conventions (range 0-5)	3.2	2.5	4

1000-Level Literature Courses	Mean	Median	Mode
Content (range 0-10)	5.8	5	4
Organization (range 0-5)	3.6	2.5	4
Style (range 0-5)	3.4	3	3
Writing Conventions (range 0-5)	2.2	2.5	0

This data suggest two important findings:

1. The department itself should refine its assessment process and collect data annually. Having data for only one year (2012) does not present an adequate picture of student performance, quality of instruction or program coherence. Further, the types of writing submitted indicate that some instructors themselves did not clearly understand the application of the common assessment rubric in scoring these artifacts. In addition, a more intentional norming process would reinforce the consistency and validity of the scoring.
2. In 2012, students scored particularly low in content--suggesting struggles with critical reading, interpretation and development of adequate support in both 1000 and 2000-level courses. If these results are representative of other years, students need more sustained interaction with written texts and additional training in developing cogent analyses.



The feedback loop for departmental assessment occurs when results are broken down by section, with individual instructors receiving score reports for all essays scored from their classes. Instructors also receive complete data sets, allowing them to compare their students' performance with the performance of students in other literature courses. Those instructors are then able to make changes in instructional strategies or assignments.

#### *Course Completion and Success*

Institutionally, students are successfully meeting the requirements in literature courses: 79.3 percent of students earned a "C" or higher; 66.6 percent earned a "B" or higher (these numbers include arranged sections). While these numbers seem high in relation to the departmental assessment results listed above, there are multiple measures employed in the classrooms to gauge student learning (not just the common assessment essay). Likewise, many literature courses require advanced projects/papers that do not fit the parameters of the common assessment essay (though some of the projects require deeper analysis and integration of ideas).

#### *Transfer Institutions*

No specific numerical data has been compiled on literature courses transferred to other institutions. Core literature courses (British, American and World Literature surveys) are recognized by most transfer institutions as satisfying similarly listed course requirements in their curriculum. Genre and special topics courses are most frequently recognized as elective credit for those students who transfer before completing an associate's degree at ECC (a two-year or four-year transfer institution uses its own discretion in categorizing courses for which there is not a near parallel in its articulated course descriptions).

#### Qualitative Data

Students completing literature electives are generally positive in their feedback on course content and method of instruction. Anecdotal evidence reveals most students believe their experiences in literature classes strengthened their reading ability, their awareness of culture and history and their understanding of the ways identity is constructed by social and environmental influences.

One action research project conducted by a faculty member teaching African American Literature revealed substantial change in social attitudes as a result of literary studies. Frequent among students' comments were indicators drawing attention to this shift in attitude:

- "Taking African American Literature has definitely made me more aware of social issues and has helped me to connect issues now with issues that have been occurring in America for hundreds of years."
- "I hadn't really thought about the Fourth of July in connection to slavery before reading this piece... I think when we celebrate the holiday today, we forget the history of America... The effect of Douglass's speech on me, and I'm sure others, is an inclination to think about what the Fourth of July really means, and what it means for those suffering the injustices of inequality, past and present."
- "I was intrigued to learn about Hurston's experience, and to hear her explanation of how she was 'not tragically colored.' I wondered if Hurston had had different experiences with white people growing up, if her upbeat attitude would have still prevailed. The fact that the people passing through her town would fawn over her and give her coins just for being herself may have done

well to share her self-confidence and the manner in which she saw the world. I believe Hurston is a prime example that your experiences are integral in shaping your identity.”

- Other literature courses also result in students emerging with greater awareness and commitment to the values of a liberal arts curriculum.
- “Racism is something that I was aware of before this class, but I think I was aware of it in a vague way that only white people can be, maybe. It's easy for me to forget that it's there and that it's institutional and happening all the time no matter what. Reading the literature in this course takes me, as a white woman, to a new level of awareness, I think. It gives me the ability to see the struggles from the places where they start rather than just here where we're trying to bring them to an end. It makes a huge difference. I'm still not living with these fears and insecurities and struggles, but I'm more able to understand them. I'm more able to figure out where I fit in the scheme of them and how my privilege as a white woman can help or hurt people.”
- “Women’s Literature. When I was perusing . . . options for fulfilling my humanities credit requirement, I assumed the class would be just that; literature produced from the female perspective through the ages. Little did I know this class would catapult my preconceived notions of the female identity into a jumble of new thoughts and ideas, forcing me to look at the history of women, and society in general, in a whole new light.”
- “This class has taught me what the women in the past have endured, how they lived, and how they struggle for the rights we enjoy today. I have a greater enjoyment out of life realizing how things used to be. But, it has also taught me that the struggle is not over. We must continue to fight for our freedoms and for all human rights.”
- “I really did learn a lot in this class and it got me thinking of things I never have. For instance the way the Spaniards came over and took over the land and how that really made the indigenous people feel. Also, the people of mixed ethnicity, I had never considered their feelings of being torn between two cultures and fighting to find a sense of identity. And the more recent readings that talked about discrimination against the Latino people. It is disgusting to think that they were treated that way.”
- In more traditional literature courses, students frequently voice similar confidence and energy at the conclusion of the course. While such confidence is to be expected from students with a particular enthusiasm for the subject matter, it is not uncommon for students who select a literature course as the lesser of several humanities “evils” to undergo a change of attitude toward both the course itself and the discipline in general, as these remarks suggest:
  - “I honestly did not want to take Shakespeare and dreaded taking this class but it has been an absolute pleasure to partake in. I love this class and think that everyone should take it.”
  - “I took Survey of American Literature only because I could not find another course that met my schedule. But the chance to read challenging literature and consider the ways these works provide slices of what it is to be an American—even today—made it my favorite course I’ve taken at ECC.

*Section 4 – English, Foreign Language & Philosophy Division Reports*

These remarks, only a sampling of the many offered each semester, indicate that many students regard literary studies as integral to their education. They affirm the place of humanities as centrally important to the general education curriculum at East Central College.

## **Reading**

Course Reviewed: Reading Comprehension (fall 2013 - spring 2014)

Submitted by: **Mary Buckey, reading instructor**

### **Context**

ECC has been using the Nelson-Denny Reading Test, Forms G and H for the past six years. The purpose of the Nelson-Denny Reading Test, Forms G and H, is to provide the reading staff a trustworthy assessment of student ability in three areas of academic achievement: vocabulary, reading comprehension and reading rate.

The Nelson-Denny Reading Test Form G is given at the beginning of the semester as a base line of the students' ability. Form H is given at the end of the semester to measure the change, if any, in the students' ability.

### **Results**

- The raw scores of the tests are translated into stanine scores. Stanine, as defined by the *Nelson-Denny Reading Test Manual*:
  - Stanine scores are based on a nine-interval normalized standard score ranging from a low of one to a high of nine.
  - Stanines in a normal distribution have a mean of five and a standard deviation of two.
- Figure 1: Compares the results of the ND-G&H forms for each ECC campus in fall 2013.
- Figure 2: Compares the stanine results from all ECC campuses for the fall semesters 2008 to 2010 and 2013.
- Figure 3: Compares the results of the ND-G&H forms for each ECC campus in spring 2014.

### **Summary/Analysis**

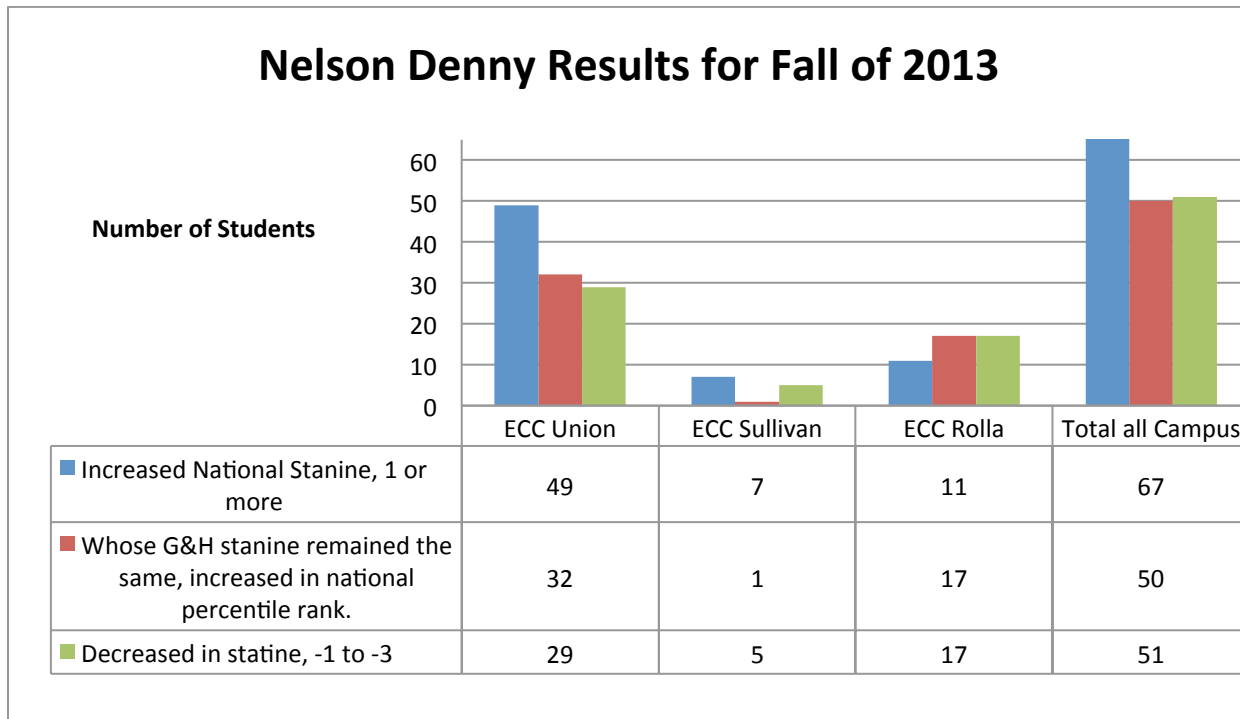
The overall results of the fall 2013 semester indicates that 67 of the 168 students (39 percent) earned an increase of one or more national stanines, a range of increase from one/lowest and four/highest; 50 (29 percent) whose G&H stanine remained the same, but increased in national percentile rank; and 51 (30 percent) decreased in stanine, -1 to -3.

In the spring 2014 semester, a total of 69 students completed both Nelson Denny forms G and H. The results indicated that 43 percent of the students increased their stanine by 1 or more points; a four percent increase from fall 2013. When taking a closer look at the following bar graphs, the number of students that increased their ability took a downward step in 2010, but then rebounded close to the level it reached in 2009.

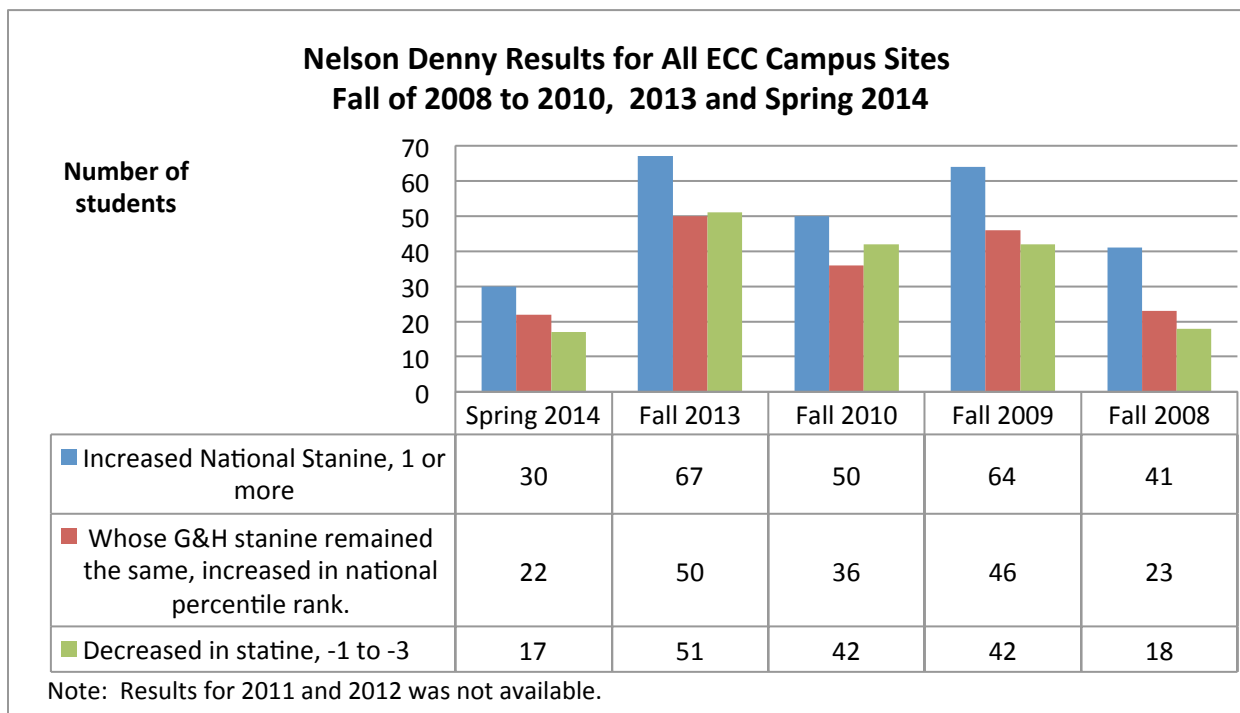
### **Improvements**

The results indicate that the ECC Reading Comprehension courses are helping some students increase their reading ability. The true test in their reading improvement will be when they enter into college-level courses. ECC's reading instructors are investigating new online programs to enhance the textbook, better ways to deliver vocabulary instruction and a system to keep track of reading comprehension students as they enroll and complete upper-level college courses. The reading instructors have incorporated upper-level course reading material from various departments on campus and plan to continue to use these texts.

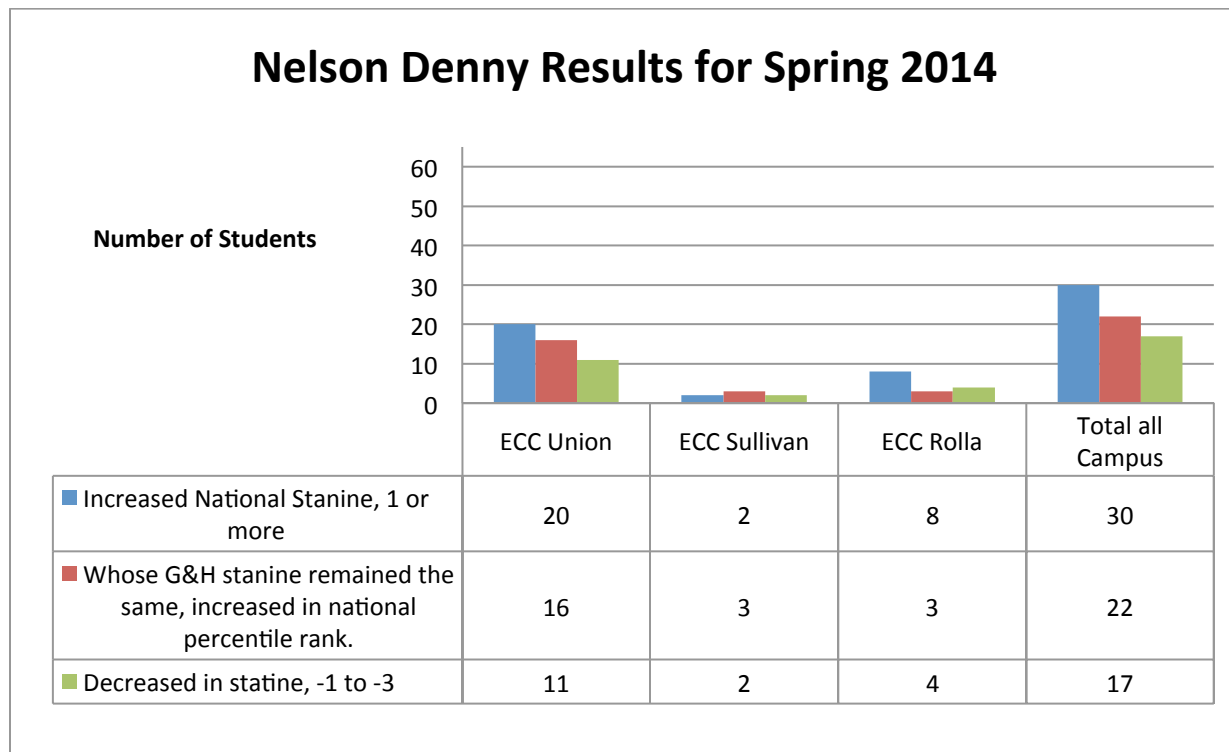
**Figure 1**



**Figure 2**



**Figure 3**



## Fine & Performing Arts

This division submitted reports on the following academic program and areas:

- Communications
- Fine Art
- Music

### **Communications**

Course Reviewed: CT 1103 Public Speaking (spring 2014)

Submitted by: **Grace Austin, communications and theatre instructor and theatre program coordinator**

#### **Overview**

During the 2014 spring semester, the Communications Department launched a pilot standardized informative speech assessment for public speaking classes. The instructors included Grace Austin, Chris Swanson and Shanee Haynes. There were three Public Speaking classes that were assessed that included 56 students.

The assessment sought to determine how prepared students were to give informative speeches around the tenth week of classes. The assessment results identified the weakest areas: transitions, ending memorably and summaries in the conclusion. The strongest areas were the use of presentational aids, thesis statements and professional attire. Instructors were given their individual results to use for future enhancement.

#### **Next Steps**

During the 2014 fall semester, all public speaking instructors, including adjuncts, will use the above-mentioned assessment for their informative speeches. Instructors have been informed to choose at least one class public speaking class. Results will be collected and evaluated at that time.

#### **Future Goals**

The Communications Department will:

- Ask instructors to comment about the content of the assessment and how useful the assessment feedback was.
- Seek out themes for improvement among students in order to better isolate areas of weakness.

This will allow the department to concentrate more on developing the emerging areas. For example, one goal will be to have all public speaking instructors use a standardized informative assessment sheet every semester in order to have the results collected and evaluated. Another goal will be to have collective activities/lectures/supplements for the designated emerging areas that instructors can utilize in their courses.



**Fine Art (AFA Degree)**

Course Reviewed: AR 2433 Design IV: Advanced Problems

Submitted by: **Jennifer Higerd, art instructor and gallery curator****1. Mission**

The East Central College Fine Art and Graphic Design Department's mission is to provide a strong foundation rooted in the principles of art and design and foster a creative atmosphere fundamental to life long learning in which a student develops mastery of skills and techniques, develops critical and creative approaches to problem solving that are communicated in a visual context as well as in written and verbal format, becomes socially aware of trends and traditions of the larger art world both past and present in preparation for transfer.

**2. Fine Art Assessment Report**

The Fine Art Assessment ties together program objectives, items to be assessed and the corresponding CLOs.

<b>Program Objectives</b>	<b>Assessment</b>	<b>CLO's</b>
* Use proper industry nomenclature	Artist statement & Formal Analysis	Communication
* Utilize technology to present and document their work for presentation	Digital Portfolio	Communication
* Display an adequate level of professionalism in presentation of their work	Student Art Exhibition	Ethics & Social Responsibility
* Display critical thinking skills and concrete conceptual development	Creation of a Coherent Body of Work, Iconography	Critical & Creative Thinking
* Demonstrate a substantial engagement with historical concepts, techniques, artists, and movements as well as a working knowledge of contemporary artists	Artist Statement	Communication, Ethical & Social Responsibility and Critical & Creative Thinking

Program Objective 1: Use Proper Industry Nomenclature

Students learn the basic underpinnings for creating strong, effective compositions and learn the vocabulary to use to explain the success or weakness of a composition.

The ECC CLO of Communication fits here. Students learn to communicate ideas through visual means and to communicate how this was accomplished using art vocabulary and terminology.

The student work evaluated was a written formal analysis, a three to five-page essay in which the student describes and analyzes one of his/her own works.

*Areas of Improvement*

- The structure and organization of the writing. Most of the essays need an introduction and conclusion as well as internal transitions.
- The structure and style of the Academic Formal Analysis paper and all that entails: introduction, conclusion, transitions and a higher, more formal level of language, rather than the conversational tone found in most of the papers.

*Means for Improvement*

- Required use of the Learning Center for proofreading, utilize resources from the English Department on MLA formatting, formalized instruction on writing
- More direct vocabulary instruction, inclusion of terminology in the Art & Design Handbook

Program Objective 2: Utilize Technology to Present and Document Their Work for Presentation

Students receive training in the correct way to document and present their work, whether through an online portfolio, a CD of images or a PowerPoint presentation. Students have access to professional lighting equipment, a DLSR camera and photo editing software.

The ECC CLO of Communication fits here. Students learn and improve their skills in correctly communicating or conveying the truthful likeness of their works.

The document used to evaluate student achievement for Program Objective 2 was a digital portfolio, showcasing the student's development as an artist, influences on his/her development (to demonstrate engagement with art historical and contemporary artists, trends and movements as required in Program Objective 5) and his/her current work. For most of the students, this was the first exposure to the tools of professional photography (lighting, camera and photo editing software). The digital portfolio was submitted as a PowerPoint file on a CD and was evaluated in three categories: presentation, craftsmanship and content.

*Areas of Improvement*

- The quality of digital images of work for documentation purposes.

*Means for Improvement*

- More hands-on instruction in the use of the camera and lighting techniques and greater emphasis on the importance of high quality images of work, begin the process of requesting dedicated photography/lighting space where the equipment can be set up and used by Art and Design students providing them with more time and opportunity to hone these skills

Program Objective 3: Display an Adequate Level of Professionalism in Presentation of Their Work

Students learn and practice the skills of analysis and evaluation, whether it is selecting work to be submitted or whether it is curating a show from many submitted works. Students consider the importance of context and audience. They demonstrate their understanding of professional presentation standards of their work by correctly preparing them as such.

The ECC CLO of Critical & Creative Thinking fits here. Students utilize critical thinking and reasoning skills when selecting works to submit or when choosing works to be exhibited.

The Annual Juried ECC Student Art Show provides the opportunity for students to practice and develop the professional skills of presenting their work.

*Areas of Improvement*

- The informed choice of proper presentation style (frame & mat, etc.)

*Means for improvement*

- The Fine Art Department will organize presentation workshops where professionals will demonstrate the industry standard in displaying artwork
- Increased discipline specific instruction within each class

Program Objective 4: Display Critical Thinking Skills and Concrete Conceptual Development

Students create a coherent body of work, often across the media, communicating an idea that they have been exploring and investigating. Students demonstrate an understanding of the elements and principles of design and effective use of materials by choosing the strongest and most effective works to be in the portfolio.

The ECC Common Learning Objective (CLO) of Critical & Creative Thinking fits here. Students practice creative thinking in planning and making work. Critical thinking skills are honed as students revise the work, self-critique and critique others.

Student achievement in Program Objective 4 can be evaluated through an examination of the student's body of work, its coherency and the use of iconography in particular. For this assessment, the student's self-generated digital portfolio provides the necessary data.

*Areas of Improvement*

- Continued growth and development of critical thinking skills and conceptual development.
- Greater connectivity between the object and the conceptual idea and the verbal communication of it all.

*Means for Improvement*

- Continued instruction and projects that hone students thinking skills
- Side-by-side working with students to model critical thinking skills as used in the art world
- More directed critique discussions aimed at object, idea, and artist's communication of the link between the two

Program Objective 5: Demonstrate a Substantial Engagement with Historical Concepts, Techniques, Artists and Movements as well as a Working Knowledge of Contemporary Artists

It is important for students to be able to make connections with their work and work in the past and to verbalize where they fit in the grand scheme. Formally and informally, in art history survey courses, studio courses and foundations courses, students learn about important historical works and what makes them continue to be valuable to artists today.

The ECC CLOs of Communication, Critical & Creative Thinking and Ethical/Social Responsibility fit here. Students demonstrate their ability to discuss and engage in the ideas of historical works in a coherent, clear and professional manner, whether it is a formal written paper or an informal class presentation. Students practice ethical/socially responsible behavior in learning how to acknowledge their visual inspiration from other artists and the researched information gained from scholars, historians and critics.

The digital portfolio used to evaluate student achievement for Program Objective 2 is also used to demonstrate engagement with art historical and contemporary artists, trends, and movements as required in this program objective.

*Areas of Improvement*

- Making more explicit connections between their work and where it fits in the broader context of the art world.

*Means for Improvement*

- More frequent intentional conversations in the studio with individual students on the origins and influences in their work.
- Faculty will strive to explain, demonstrate and cultivate this skill of making connections between the past and the current and the student's own work.

**Music (fall 2013 – spring 2014)**

Submitted by: **Jennifer Judd, music department coordinator**

***I. Department Goals and Objectives***

The ECC Music Department has been continually implementing changes to its program, standards and facilities with the goal to achieve accreditation from the National Association of Schools of Music (NASM). The main areas of the department that were assessed in 2014 were:

1. Health and safety of the students.
2. Facilities used by the department.

The two main goals to report for 2014 are the following:

1. Meet NASM Standards - specifically in the areas of health and safety and facilities.
2. Achieve accreditation by NASM.

***II. Means of Assessment***

The following methods of assessment have been used:

1. *NASM representatives' study of ECC's music program, department and facility*  
NASM representatives visited the ECC campus in order to review the Music Department and its facilities. They submitted a report to NASM and ECC, which outlined areas that the college needs to improve in order to meet NASM standards and become accredited. The Music Department and the college as a whole have worked to make the recommended improvements. The comments by the NASM representatives and the response to the comments by ECC (which outlines the changes) can be found in Table 1.

To address a concern about the health and safety of the students in certain areas, a consultant from Acoustic Dimensions was hired. The consultant visited the college on April 9, 2013 and submitted a report to the college on April 29 outlining ways to improve the facilities. The college created an action plan with additional input from the Facility Advisory Committee and the maintenance staff to address the concerns outlined by NASM.

2. *Hiring of an acoustic consultant*

**III. Analysis**

Table 1. A list of goals and objectives assessed, strategies to achieve those goals and adjustments that have been made to attain those goals.

<b><u>Goals and Objectives Assessed</u></b>	<b><u>Strategies</u></b>	<b><u>Adjustment</u></b>
<b>Facilities (for percussion students)</b>	NASM Response (Page 3, paragraph 2) –	ECC Reply- “The Percussion Private Lessons have been permanently moved to AC 116 (the Band Room), where the instructor can conduct private lessons.” Further provisions have been made for the safety of the instruments and the prevention of interruption of lessons and rehearsals.
	“The instrumental storage room serves as the percussion teaching studio.” “The visitors encourage the department to explore other options as a teaching space for these students.”	
<b>Facilities (Storage)</b>	NASM Response (Page 4, paragraph 1) –	ECC Reply- “The music faculty reevaluated the space in the storage room and came to the conclusion that the space is not used to its maximum potential. The department is looking into redesigning the instrumental storage room to maximize the use of the space and more efficient use of the room.
	“Storage space seems to be of concern.”	Students will have access to the AC117 storage room as well as the storage shelving units in the lower level.”

<b><u>Goals and Objectives Assessed</u></b>	<b><u>Strategies</u></b>	<b><u>Adjustment</u></b>
<b>Facilities (Recording Equipment)</b>	NASM Response (Page 4, paragraph 1) –	ECC Reply-
	“The Self-Study notes the lack of recording equipment for music performances.”	“The department also has plans to purchase recording equipment for our primary recording space in the 2013-14 academic year. A proposal for purchasing recording equipment with specific microphones, cables, recorders, and mounting hardware has been submitted.”
<b>Facilities (Practice Rooms)</b>	NASM Response (Page 4, paragraph 4) –	ECC Reply-
	“There appears to be a lack of sufficient practice rooms.”	“To improve the space issue, the adjunct teachers who used to teach in one of the practice rooms adjusted their schedule and are relocated to AC112 and AC113, the teaching studios. In addition, AC118, the choir room, is designated as an additional applied voice lessons and vocal rehearsal space.”
<b>Facilities (Acoustic Treatment in Instructional Studio Space)</b>	NASM Response (Page 4, paragraph 8) –	ECC Reply-
	“The Self-Study articulates the need for improvement in the acoustic treatment of instructional studio space.”	ECC is seeking, “to address sound leaking issues in the faculty studios and practice rooms. Improvements such as adding sound absorbing wall treatments, adding fabric wrapped fiberglass acoustical panels, replacing the sound seals on all practice rooms and faculty studio doors, upgrading the partitions between rooms, etc. will be implemented.”

<b><u>Goals and Objectives Assessed</u></b>	<b><u>Strategies</u></b>	<b><u>Adjustment</u></b>
<p>Health and Safety (Sound Pressure Levels in the large instrumental rehearsal room, AC 116)</p>	<p>NASM Response (Page 4, paragraph 8 –</p>	<p>ECC Reply-</p>
	<p>“The Self-Study articulates the need for improvement in the acoustic treatment of instructional studio space.”</p>	<p>“The sound remediation measures are progressively underway. In order of efficacy, the college will replace the sound reflective acoustic ceiling tiles with thick sound reflective gypsum board tile and absorptive treatments; introduce more sound absorptive material into the space, placing fixed sound absorptive fabric wrapped panels; introduce more sound absorptive curtains at each of the walls, and replace the doors with STC-rated doors.”</p>
<p>Health and Safety (Information Provided to students, faculty, and staff)</p>	<p>NASM 2012-2013 Handbook:</p>	<p>The ECC website has been updated to contain a Health and Safety Page, linked to its Music Program homepage. This Health and Safety Page contains information and links for administrators, faculty, and students concerning general musicians’ health, hearing health, neuromusculoskeletal and vocal health, the safe handling of instruments and equipment, and psychological health including performance anxiety.</p>
	<p><i>“Students enrolled in music unit programs and faculty and staff with employment status in the music unit must be provided basic information about the maintenance of health and safety within the contexts of practice, performance, teaching, and listening”</i></p>	



#### ***IV. How Results will be Evaluated & Disseminated***

##### Dissemination and Use of Data

Results of the adjustments will be submitted to East Central College in the annual assessment report. The music faculty will meet to discuss the results of the assessment to determine if any adjustments to the program are necessary.

#### ***V. Time Table***

The implementation the above adjustments are already in motion, some have been fully completed already, while others require short term strategic planning.

The Music Department was awarded a mini grant in fall 2013 to purchase new recording equipment. The equipment and microphones have been installed in spring 2014.

##### Improvements to Large Instrumental Rehearsal Room

The installation of the acoustic ceiling with R-19 insulation was completed in October 2013. In mid-February 2014, acoustic door seals and acoustic panels with absorptive materials will be installed. Beginning in March 2014, acoustic curtains and acoustic curtain tracks will be purchased and installed. In May 2014, the acoustic doors will be installed. The college will contract with an outside company to do the improvements on the large instrumental rehearsal room.

##### Improvements to the Faculty Studios and Practice Rooms

The improvements on the faculty studios and practice rooms will be completed by the East Central College Maintenance Department. Beginning in summer 2014, plans are in place to seal and extend walls above drop ceilings, install acoustic seals for doors and install acoustic panels on adjacent walls. In addition, throughout the spring semester, faculty and staff office assignments are being reviewed. Recommendations regarding the repurposing of some of those spaces near the music practice and large instrumental rehearsal spaces will be discussed.

In addition, as part of the institution's Master Plan process, a long-term solution to the music practice and rehearsal spaces will be considered.

## **Mathematics & Physical Science**

This division submitted reports on the following academic programs and areas:

- Industrial Engineering Technology
- Mathematics
- Physics and Transfer Engineering
- Transfer Engineering

### ***Industrial Engineering Technology***

Course Reviewed: IE 1172/1171 Process & Controls Systems Lecture/Lab and IE 2213 PLC-Programmable Logic Controllers (spring 2014)

Submitted by: **Nathan Esbeck, industrial engineering program coordinator**

### ***Department Level***

Process Controls and Programmable Logic Controllers were the courses reviewed by the Industrial Advisory board in the 2013-2014 academic year. Changes made based on the discussions and instructor input are shown below.

#### Process Controls

1. Revision of pre-requisites to require Industrial Electricity.
2. The course will be revised to have students spend additional time on documentation and numbering of control panel wiring.
3. Revision to the curriculum to drop motor-driven timers and timing relays and replacing them with solid state devices.
4. Addition of a lab focused on solid state relays.
5. Addition of a wiring component to student assessment (tests are now a combination of written and wiring demonstration).

#### Programmable Logic Controls

1. Revision of pre-requisites to require Process Controls.
2. Transition to more independent learning through the use of individual licenses for simulation software and individual trainers purchased through enhancement grant funding.

### ***Student Level***

The National Occupational Competency Testing Institute (NOCTI) exam is administered during the Industrial Troubleshooting (capstone) course in the final weeks before graduation. Results for the 2013-2014 graduates are shown below.

The program's preliminary results show that ECC students would test above the state and national average based on last year's scores. The department is still waiting for information from NOCTI to include in this assessment and the program coordinator will show a comparison to last year's performance. The breakdown will also indicate performance improvement in individual areas or areas of weakness needing additional emphasis.

**IET RETENTION RATES**

Semester	IET Majors	Graduates	Still Enrolled as of Next Semester	Retention Rate
Fall 2010 to Spring 2011	44	3	30	75%
Spring 2011 to Fall 2011	36	8	25	92%
Fall 2011 to Spring 2012	29	1	23	83%
Spring 2012 to Fall 2012	29	4	18	76%
Fall 2012 to Spring 2013	26	1	18	73%
Spring 2013 to Fall 2013	26	3	18	81%
Fall 2013 to Spring 2014	34	0	26	76%

Semester-to-semester retention rates for the past seven semesters are shown above. The large number of graduates in spring 2011 was likely due to the influx of students from the Chrysler plant layoff who completed the program. Overall there is no discernable trend. In the future, using a breakdown of non-returning students may help us understand how we can improve the rate of retention. If, for example, it was found that most non-returning students were in their first semester, the retention strategy would be different than that of non-returning students closer to graduation who did not return due to obtaining gainful employment.

**Program Level**

- A progress report was submitted to ATMAE in September reporting on issues from the initial accreditation in 2010. An oral report as made in front of the ATMAE accreditation committee at the annual conference in November and the report was accepted.
- The ATMAE reaccreditation report was submitted in February and the site visit was held in March. Initial findings have identified areas of opportunity that will be included in program-level objectives for 2014-2015. Preliminary findings are included below. A plan is being put in place to respond to and resolve these issues by September 2016.

**7.0 Standards for Accreditation (Program Inputs)****7.1 Program Title, Mission, and General Outcomes**

The program/option title, definition and mission shall be compatible with the ATMAE definition of technology, management and applied engineering. The program/option shall lead to a degree at the associate, bachelors or master's level. ATMAE approved definitions for degree programs are as follows:

- a. *Associate Degree*: Programs/options that prepare individuals for positions, which contribute to the design and development, production, distribution or operational support of complex technical systems.
- b. *Baccalaureate Degree*: Programs/options that prepare individuals for positions that involve the management of complex technological systems.
- c. *Master's Degree*: Programs/options that prepare individuals for career advancement, which involves the management of complex technological systems.

General outcomes shall be established for each program/option that provide a framework for the development of specific measurable competencies. Validation of the general outcomes shall be accomplished through a combination of external experts, an industrial advisory committee and, after the program is in operation, follow up studies of graduates.

Only institutions legally authorized under applicable state law to provide degree programs beyond the secondary level and that are recognized by the appropriate regional and/or national accrediting agency are considered for accreditation. Evidence must exist that the programs are understood and accepted by the university/college community, and the business/industry community.

Note: Each program/option shall have appropriate titles consistent with the approved ATMAE definition of technology, management and applied engineering. Representative student transcripts for each program and/or option shall be made available for the visiting team.

All Program/Option Same:  Compliance  Partial Compliance  Non-Compliance

The team finds that the self-study report and Appendix A includes comprehensive program objectives and competencies however, the programs general outcomes, which should set a framework for the development measurable competencies are not clearly listed.

#### 7.8 Administrative Support & Faculty Qualifications

There must be evidence of appropriate administrative support from the institution for the technology, management and applied engineering program/option including appropriately qualified administrators, an adequate number of full-time faculty members and budgets sufficient to support program/option goals. Full-time faculty assigned to teach courses in the technology, management and applied engineering program/option must be appropriately qualified.

Faculty qualifications shall include emphasis upon the extent, currency and pertinence of: (a) academic preparation; (b) industrial professional experience (such as technical supervision and management); (c) applied industrial experience (such as applied applications); (d) membership and participation in appropriate technology, management and applied engineering professional organizations; and (e) scholarly activities. The following minimum qualifications for full-time faculty are required (except in unusual circumstances which must be individually justified):

- a. *Associate Degree*: The minimum academic qualifications for a regular full-time faculty member is expected to be an earned bachelor's degree in a discipline, or in certain cases for documented reasons, an associate's degree plus professional certification/licensure closely related to the faculty member's instructional assignments.
- b. *Bachelor's Degree*: The minimum academic qualifications for regular tenure track, or full-time, faculty members shall be an earned graduate degree in a discipline closely related to the instructional assignment. A minimum of 50 percent of the regular tenure track, or full-time, faculty members assigned to teach in the program of study content area(s) shall have an earned doctorate or other appropriately earned terminal degree as defined by the institution. Exceptions may be granted to this standard if the institution has a program in place that will bring the faculty demographics into compliance within a reasonable period of time.
- c. *Master's Degree*: An earned doctorate degree in a discipline closely related to the faculty member's instructional assignment (exceptions may be granted for specialized technical management programs/options).

Policies and procedures for faculty selection, appointment, reappointment and tenure shall be clearly specified and shall be conducive to the maintenance of high quality instruction. Faculty teaching, advising and service loads shall be reasonable and comparable to the faculty in other professional program areas.

Program/Option: IET  Compliance  Partial Compliance  Non-Compliance

The visiting team finds that the IET program does not have adequate administrative support. Additionally in speaking with the student representatives and staff the team finds that one full-time faculty who serves as coordinator and teaches an overload is not sufficient to sustain the current and future student majors.

#### 7.9 Facilities, Equipment & Technical Support

Facilities and equipment, including the technical personnel support necessary for maintenance, shall be adequate to support program/option goals. Evidence shall be presented showing the availability of computer equipment and software programs to cover functions and applications in each program area. Facility and equipment needs shall be included in the long-range goals for the program.

Program/Option: IET  Compliance  Partial Compliance  Non-Compliance

Although facilities and equipment meet the current needs of the IET program the team finds that the equipment needs upgrading and facilities need major renovation to reflect the needs of contemporary industry. Also, the maintenance of existing equipment demands a lab technician.

#### 7.15 Employer Satisfaction with Job Performance

Employer satisfaction with the job performance of graduates shall be tracked on a regular basis (two to five years) including employer attitudes related to the importance of the specific competencies identified for the program. Summary data shall be available showing employer satisfaction with the job performance of graduates.

Program/Option: IET  Compliance  Partial Compliance  Non-Compliance

The team does not find evidence that the employers or advisory board members have been contacted to ascertain their satisfaction with graduates of the program.

#### 7.16 Outcome Measures Used to Improve Program

Evidence shall be presented showing how multiple outcome measures for example (Graduate Satisfaction with Program/Option, Employment of Graduates, Job Advancement of Graduates, Employer Satisfaction with Job Performance, Graduate Success in Advanced Programs, Student Success in Passing Certification Exams, and Advisory Committee Approval of Program) have been used to improve the overall program/option (please use the attached table 7.19). Evidence that program stakeholders participate in this process must be demonstrated.

All Program/Option Same:  Compliance  Partial Compliance  Non-Compliance

The visiting team finds a system in place to collect and analyze the relevant data, but there is not a clear evidence that the collected data has been used to improve the overall programs in a continuous manner.

4.5 Program Responsibility to Provide Information to the Public

The program must make available via website, student performance and achievements to the public as may be determined appropriate by the institution or the program and may also provide hard copy of student performance and achievements as may be determined appropriate by the institution or the program. Sources of potential information include, but are not limited to: student graduation rates from the program; average starting salaries; mean grade point averages; promotions achieved; time to secure first position; average years to complete the degree; student awards/scholarships received; etc. (see Accreditation Policies Sections 1 through 4)

All Program/Option Same:  Compliance  Partial Compliance  Non-Compliance

The programs web pages and hard copy information has general data regarding student performance and achievement, which is available. However, the team does not find specific programmatic data that can be presented and used by the public.

**Assessment Goals**

Obtain math and English placement scores to improve the correlation between placement testing and course success. The objective would be to determine what factors cause a student to withdraw from a class (non-completing IET students tend to withdraw or stop attending rather than receive a failing grade). Other factors to consider would be course load and hours working. The hours working data could not be obtained from ECC's existing data.

### **Industrial Engineering Technology Assessment Plan**

Submitted by: **Nathan Esbeck, industrial engineering program coordinator**

#### **Department Level**

All career and technical programs utilize advisory boards to insure that the program is meeting the needs of local industry. The IET Industrial Advisory Board (IAB) is comprised primarily of engineers, plant managers, and maintenance managers from regional industry. Maintaining a group of around 10 members, representing different industries and cities is desired.

Members of the IAB may remain on the board as long as they remain active (attend one meeting per year). When members leave, new members are recruited utilizing contacts of the IAB and IET Program Coordinator. Potential members are recommended based on their experience and ability to provide a diversity of manufacturing/industrial knowledge. The IAB meets at least two times per year and conducts additional business via email. Additionally, the effectiveness of the IAB will be assessed every other spring, beginning 2014, with the ECC advisory committee effectiveness rubric.

To maintain current and relevant curriculum, the IAB assesses two courses each year (one per meeting). These courses are assessed for text choice and content covered. Course content is updated based on industry feedback. Any updating of equipment is also discussed and, if recommended, placed on the enhancement grant list. Below is the course assessment rotation:

1. Motor Controls (FA 12)
2. Maintenance Practices (SP 13)
3. Process Controls (FA 13)
4. PLC (SP 14)
5. Advanced PLC (FA 14)
6. Industrial Electricity (SP 15)
7. Industrial Robotics (FA 15)
8. Materials and Metallurgy (SP 16)
9. Industrial Computer Applications (FA 16)
10. Troubleshooting (SP 17)
11. Intro to Manufacturing Processes (FA 17)
12. Industrial Power Systems (SP 18)
13. Industrial and Control Systems Wiring (FA 18)

Upon completing the thirteen courses, the IAB will begin again with the first. The IAB review is an excellent opportunity to update course content but it should be noted that courses are updated for changes in industry each time they are taught.

#### **Student Level**

The National Occupational Competency Testing Institute (NOCTI) Exam is administered during the Industrial Troubleshooting (capstone) course or in the final weeks before graduation. This exam meets the DESE requirements for a Technical Skills Assessment (TSA). The test covers the following areas:



1. Couplings
2. Centrifugal Pumps
3. Hydraulics
4. Fluid Power
5. Pneumatics
6. Controls
7. Motor Controls
8. Symbols
9. Transformers and Lighting
10. Alternating Current
11. Direct Current
12. Programmable Controllers
13. National Electric Code

Results of the NOCTI exam are utilized to evaluate relevant courses for student learning and retention. For example, if most students scored poorly in one of the thirteen areas, it indicates that the course should allocate more time to the subject or the teaching method should be evaluated for effectiveness.

Students are also assessed annually for the communications Critical Learning Objective (CLO) attainment during the Industrial Computers course using ECC's common embedded rubric. Assessment in this course was chosen because the course requires student presentations. The Ethics and Social Responsibility CLO will be assessed during the Materials and Metallurgy course because the importance of proper material selection, inspection and design to product safety were discussed. This CLO will be assessed annually using the assessment tool developed by the AQIP action project committee.

The IET department uses the Critical Thinking CLO exam for assessment. This exam is scheduled to take place during the spring 2018 semester to test the improvement shown by students entering during fall 2016.

### ***Program Level***

ATMAE Reaccreditation Site Visit occurred March 2014

The program is anticipating reaccreditation in fall 2014 with an update due in fall 2016 for items in partial compliance. Subsequent reaccreditations occur every seven years

An assessment report will be submitted to the college on a rotation of every other year, beginning 2014, containing averages of scores of learning outcomes and rationales (including common learning objective scoring and TSA test results). It will also include recommended course/program changes from the Industrial Advisory Board.

As part of the colleges Program Review process, the IET program will begin the review process in January 2018 and every five years thereafter.

Upon the availability of data, the program will track and review student completion rates. The program will compare those students who declare IET as a major but do not return the subsequent semester with those who do. This should allow some measure of student persistence in the program without putting a time limit on completion (i.e. percentage of students who graduate within two years of starting the program)

### **Mathematics**

Courses Reviewed: MT 0103 Pre-Algebra, MT 1505 Pre-Calculus, MT 1605/2105/2205 Analytical Geometry & Calculus I, II and III (*fall 2013 – spring 2014*)

Submitted by: **Ann Boehmer, math & physical science division chair**

### **Overview**

#### Pre-Algebra (MT 0103)

Since the last report in spring 2010, the department has reviewed two major actions:

1. Raising the minimum requirement needed on the final exam to pass MT 0103 to a 70 percent (previously a 60 percent minimum was required).
2. Creating standardized grading practices to be implemented by all faculty members regardless of full-time or adjunct status or location (Union, Rolla, Sullivan or Washington).

The action was taken to create consistency in grades and success rates in Pre-Algebra and to improve the success rate in the subsequent course, Introductory Algebra.

#### Pre-Calculus (MT1505)

Since the last report in spring 2010, a departmental midterm was created to assist in establishing strengths and weaknesses of students in the course.

#### Analytical Geometry & Calculus I, II, & III (MT 1605, MT 2105, MT 2205)

Since the spring 2010 report, the updated dual credit placement test was implemented.

The placement test for MT1605 was updated to create more consistency between dual credit and non-dual credit offerings.

### **Results/Impact**

#### Pre-Algebra (MT 0103)

Introductory Algebra success rates have shown improvement since the minimum required score on the final in Pre-Algebra was increased. Additionally, there have been minimal discrepancies in success rates for Pre-Algebra among faculty. However, the overall success rate in MT 0103 was also affected. The observed impact coincided with the department's anticipation regarding success rates.

#### Pre-Calculus (MT 1505)

Many of the concepts missing at midterm did not improve by the final exam.

#### Analytical Geometry & Calculus I, II, & III (MT 1605, MT 2105, MT 2205)

More consistency was established between dual credit students and non-dual credit students on the departmental final exam.

### **Supporting Evidence/Information**

#### Pre-Algebra (MT 0103)

Since raising the minimum requirement on the final exam and creating standardized grading practices, a student earning an A in Pre-Algebra and then successfully completing Introductory algebra on the first

attempt has risen from 73.1 percent to 83.1 percent; a student earning a B in Pre-Algebra and successfully completing Intro has increased from 36.2 percent to 53.3 percent; and a student successfully completing Intro after earning a C in Pre has risen from 15.5 percent to 29.7 percent.

The success rates in Pre-Algebra among full-time and adjunct faculty has resulted in approximately a one percent difference. Enrollment in Pre-Algebra has risen 119 percent since last reporting on MT 0103, however, with the implemented changes the success rate of MT 0103 has fallen 20 percent.

#### Pre-Calculus (MT 1505)

Nine of the 20 questions on the final had an incorrect percentage rate 50 percent or over. In further reviewing these questions, four topics were not retested on the final, three topics had a larger percentage of incorrect answers on the final exam, and only two topics illustrated improvement with a lower percentage of incorrect on the final.

#### Analytical Geometry & Calculus I, II, & III (MT 1605, MT 2105, MT 2205)

In analyzing the departmental final, the average and median for non-dual credit students ranged from upper 50 percent to low 60 percent as compared to dual credit students, which ranged from mid to upper 60 percent. Given dual credit students have a full academic year to cover the course objectives, the department felt this was a consistent result.

Additionally, when reviewing the course competencies covered on the final exam of the eight most frequently missed competencies for non-dual credit students, the department found seven of those to coincide with the most frequently missed competencies for dual credit students.

### **2013-2014 Goals**

In review of the spring 2013 report, the following goals for academic year 2013-2014 were established:

- Review ways to help improve the success rates of students by exploring the option of more credit hours for College Algebra (either through lecture or a lecture/lab combination), mandatory problem solving sessions, increased departmentally infused reviews of pre-requisite material, infused mastery testing throughout the course, and alternate modes of delivery and homework management.
- Improve external academic support, and increase exposure to new standards in mathematics (which include common core standards, smarter balance questions, and the replacement exam for CBASE, and state requirements of minimum GPA and course grade). The department will also continue departmental collaboration between the mathematics and education departments.

The department has made progress towards these goals as follows:

- Realigning course objectives and adopting new texts in developmental courses to better align with College Algebra objectives, updating the College Algebra final and review, and continuing to discuss and research alternate delivery modes, infused mastery learning, and appropriate credit hours for MT 1403. Additionally, the department continues to research data and recommendations from external sources such as the completion agenda and the department of higher education best practices principles.
- Adopting a new edition of the current RNS/Metric & Non-metric book that includes common core standards. Continued collaboration between the mathematics and education department, especially regarding testing under MOGEA and changes in the AAT degree.

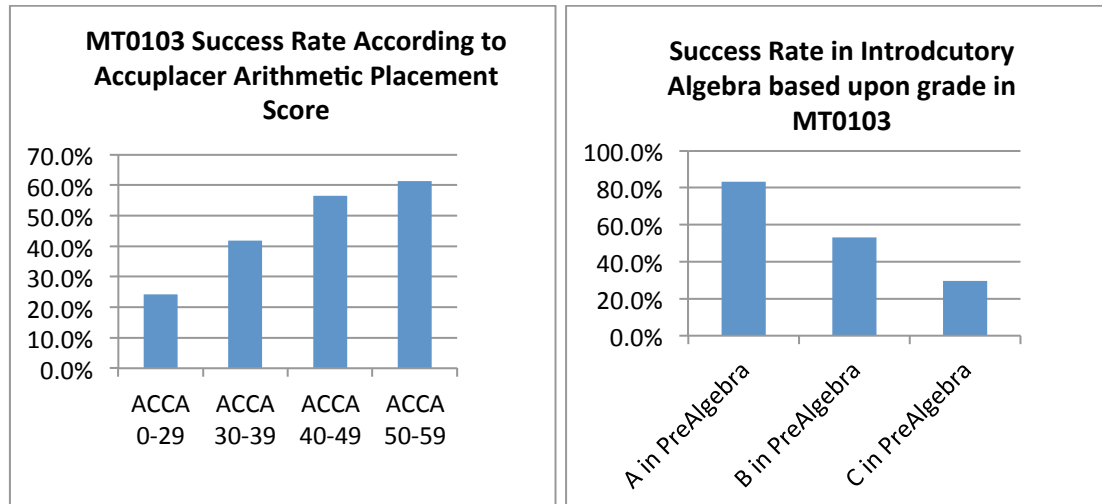
For spring 2014, the department (as per the assessment plan) reviewed data regarding Pre-Algebra (MT 0103), Pre-Calculus (MT 1505), and the Calculus sequence (MT 1605, MT 2105 and MT 2205).

### **Pre-Algebra (MT 0103)**

This is an entry-level course for students in preparation for the Introductory/Intermediate algebra Sequence. Students will gain a background in arithmetic and algebraic topics by means of various presentation styles and group work. Topics to be covered include: arithmetic operations on the set of whole numbers, integers and rational numbers, including decimals, exponents and percentages, solving linear equations, and various applications in problem solving.

Full-time and adjunct instructors teach Pre-Algebra at the main campus (Union) and at three satellite sites (Rolla, Sullivan and Washington – Four Rivers). The course is overseen by the Mathematics Department that currently requires the use of a departmental syllabus containing a list of required material, and a department mandated text, pre-test, midterm, final and certain grading practices. These practices include a cap on the homework percentage and the final exam having a minimum requirement of 20 percent of the final grade and a minimum score of 70 percent on the final exam for successful completion). MT 0103 is offered every semester (including summer) throughout the day and evening, and is taught in traditional, self-paced and online formats.

Data for this reporting cycle was collected from spring 2011 through fall 2013. The overall success rate for MT 0103 was approximately 45 percent. Success rates according to Accuplacer score, as well as success in Introductory Algebra compared to grade in Pre-Algebra were also tracked and reported below.



Departmental pre-tests, midterms and finals were also analyzed. The department found the pre-test is continuing to correlate to placement, with both the average and median ranging percent-wise from the upper 30s to low 40s. Both the average and median improved from the departmental pre-test to the departmental midterm (mid to upper 60 percent), and again from the midterm to the departmental final (upper 60 to low 70 percent). In reviewing designated learning outcomes which are inherent to the algebra sequence and that embody the foundation of critical thinking in mathematics, the department found students deficient in finding the least common denominator (with over 50% of all questions related to this topic missed on departmental assessments).

As a result of the above data, the department would like to pursue the option of a threshold score in mathematics. As indicated, less than 25 percent of students with an ACCA score under 30 were successful in MT 0103. Of the 427 students in the range who were unsuccessful in their first attempt at MT 0103, only 47 were able to successfully complete Pre-Algebra in a subsequent attempt.

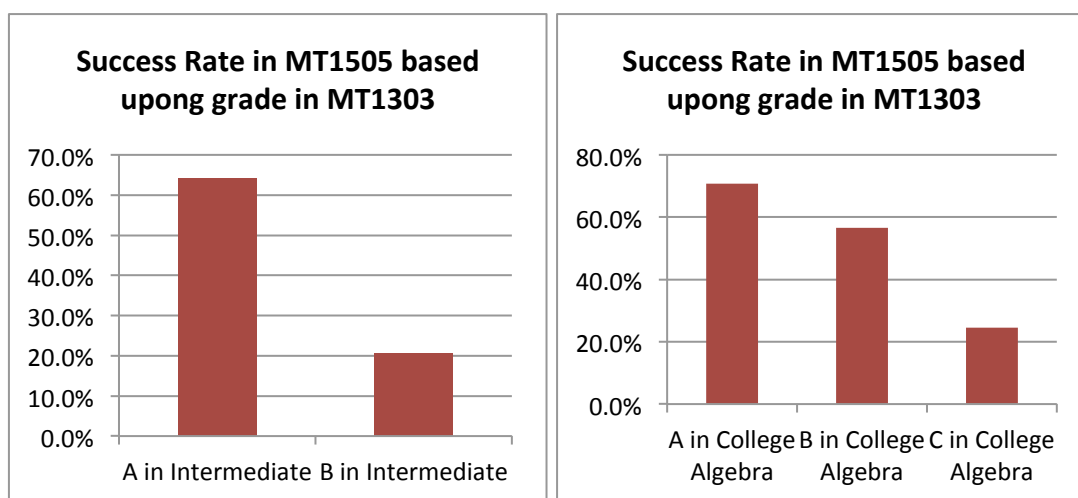
The department is going to review course content and objectives, and review calculator policy, as well as investigate options for alternate grades, which indicate a student is making progress and thus allowing two semesters to complete the course. The department would like to investigate a modular format for improved placement practices and allow students to repeat topics not yet mastered before advancing. For the self-paced course, the department will continue to monitor success rates as the data population increases and will continue to find ways to promote the course with students best fitted for the format.

### ***Pre-Calculus (MT 1505)***

This course is designed to meet the needs of the student planning to enroll in mathematics courses numbered 1600 or above. MT 1505 is a unified study of College Algebra and Trigonometry, with particular emphasis given to the preparation of the student for the study of the Calculus. Topics covered include: sets, complex numbers, logs and exponents, polynomials, rational expressions, radicals, solving equations and inequalities, graphing equations and inequalities, and the study of the trigonometric functions.

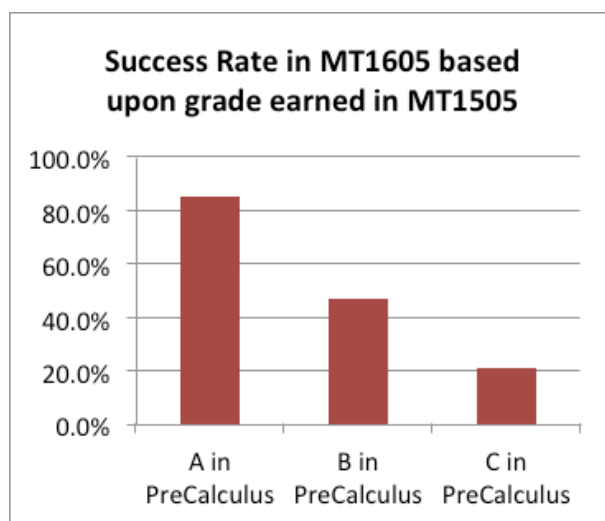
MT 1505 is taught predominantly by full-time instructors at the main campus (Union campus), but has also been taught by adjuncts and offered as a dual credit course at multiple area high schools. The course is taught in a traditional format and is overseen by the Mathematics Department and currently requires the use of a departmental syllabus containing a list of required material, including a department mandated text, departmental exams (midterm and final) and departmental grading standards (such as the final accounting for a minimum of 20 percent of the course grade).

Data for this reporting cycle was collected from spring 2011 through fall 2013. Placement into MT 1505 can occur by successfully completing Intermediate Algebra (MT 1303) with a “B” or above, College Algebra (MT 1403) with a “C” or above, or through placement exam (Accuplacer College Math score of 59-90 or ACT score of 26-29). The overall success rate for MT 1505 was approximately 53 percent. Success rates according to placement via MT 1303 and MT 1403 are shown below.



In addition to the above success rates, it was found that approximately 67 percent of student placing into MT 1505 via Accuplacer were successful. This percent is about 10 points better than those students first earning a “B” in College Algebra and only slightly better than students earning an “A” in MT 1303 (three percent). For students placing into MT 1505 via an ACT score, the success rate was 64 percent (note: students with an math ACT score of 26 – 27 had a success rate of 60 percent or less and for those with 28 – 29 a success rate over 75 percent).

In reviewing the departmental exams, the data showed on the departmental midterm (assessing algebra skills) the average and median were in the mid 50s to low 60s percent-wise. On the algebra portion of the final exam the average and median percentages ranged from the low 50s to the low 60s. And, on the trigonometry portion the average and median percentages were in the mid 40s to low 50s. In addition to collecting data on the success rates in MT 1505, the success rates in the subsequent course MT 1605 were gathered and are shown below.



In spring 2014, the department changed the content covered in MT 1303 and would like to continue to follow the data to assess if these changes have an impact on the success rates in MT 1505 for students earning a “B” in MT 1303. As a result of the grades on the departmental exams, and the success rate in MT 1605, the department would like to review the course objectives in MT 1505 and their alignment with the course pre-requisite expectations for MT 1605.

For the midterm and final, the department would like to identify key concepts which serve to align the midterm and final to gather more meaningful data and perhaps to assist in identifying whether grade or final exam is a better indicator of success in the subsequent course. Additionally, the department will begin using a new text in fall 2014 to assist in accomplishing these goals.

### ***Analytic Geometry & Calculus I (MT1605)***

This is the first course in a sequence including Analytic Geometry, Differential Calculus and Integral Calculus. Topics include: properties of real numbers, introduction to analytic geometry, functions, limits, continuity, the derivative, differentiation of functions, applications of the derivative, anti-derivatives and the definite integral.

MT 1605 is predominantly taught by full-time instructors at the main campus (Union), but has also been taught by adjuncts and offered as a dual credit course at multiple area high schools. The course is taught in a traditional format and is overseen by the Mathematics Department. It currently requires the use of a departmental syllabus containing a list of required material, including a department mandated text, departmental final exam and departmental grading standards (such as the final accounting for a minimum of 20 percent of the course grade).

**Analytic Geometry & Calculus II and III (MT 2105 and MT 2205)**

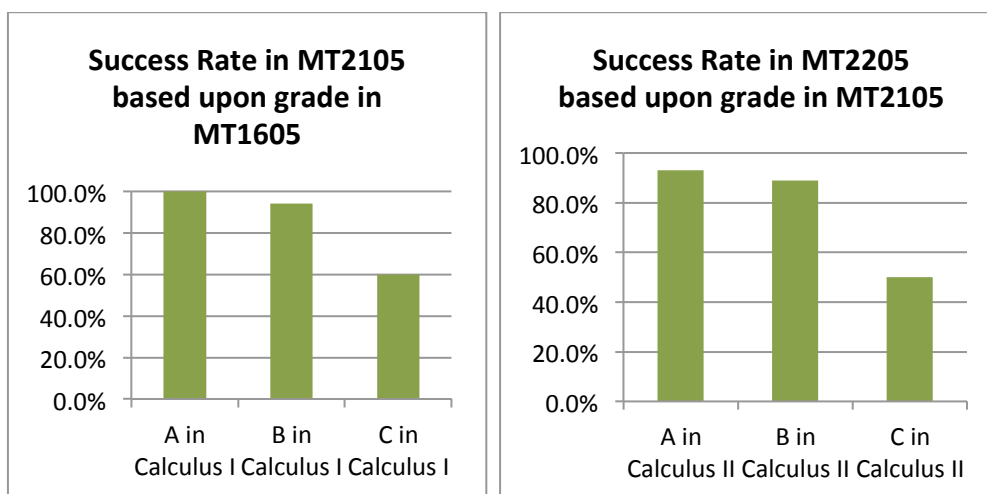
MT 2105 is a continuation of MT 1605 including topics such as applications of the definite integral, logarithmic and exponential functions, hyperbolic and trigonometric functions, techniques of integration, approximate integration, indeterminate forms, improper integrals, sequences and series.

MT 2205 is a continuation of MT 2105 including vectors and surfaces in three-dimensional space, solid analytic geometry, differential calculus of functions of several variables, and multiple integration.

MT 2105 and MT 2205 are taught by full-time faculty at the Union campus.

MT 2205 is taught in a traditional format and is overseen by the Mathematics Department and currently requires the use of a departmental syllabus and mandated text.

In reviewing the data for the Calculus sequence, the department found MT 1605 to have approximately a 48 percent success rate, MT 2105 approximately 77 percent and MT 2205 approximately 71 percent. The following chart illustrates the success rates in subsequent courses based upon the grade in the pre-requisite course.



The data shows that a grade of “A” or “B” in the pre-requisite course is a good indicator of success in the following course. In addition to review the alignment of course competencies in MT 1505 with MT 1605 (as stated previously), the department would also like to investigate incorporating a Calculus I recitation to help improve success rates.



**Mathematics Assessment Plan (Spring 2014)**

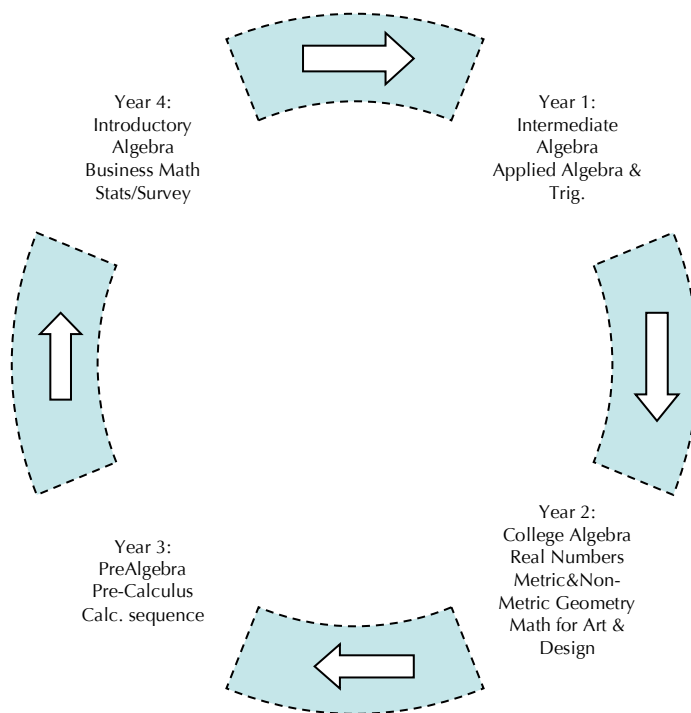
Submitted by: **Ann Boehmer, math & physical science division chair**

The aim of the department assessment plan is two-fold:

1. Assess selected learning outcomes and practices that are inherent in the entire algebra course sequence and embody the foundation of critical thinking in mathematics
2. Follow a cycle of course assessment and program review, with attention to both individual course improvement and continuity between sequential courses.

I. The department has identified the topics, which are prevalent throughout the algebra sequence and can be assessed by examining the results of specific learning objectives that build upon each other in each of the sequential courses. These learning objectives will provide a body of data to analyze the development of these fundamental skills.

II. Course review will follow the cycle illustrated:



The above cycle will ensure the review of subsequent courses immediately follows that of the previous courses.



Items utilized for individual course assessment, continuity and retention throughout course sequences will include:

- Revision of course goals and learning outcomes.
- Success rates as they relate to placement testing.
  - Cut-off scores
- Review of departmental midterms/final exams.
  - Item analysis
  - Alignment with course objectives
- Success rates as they relate to performance in previous courses.
- Enrollment numbers by pathway of course entry.
- CAAP/other embedded assessments in selected courses.

Course assessment outlined above will include all sections offered in both traditional and alternative formats (self-paced, hybrid, online), and at all locations (main campus, all satellite location offerings and high school dual credit) taught by full-time, adjunct and dual credit faculty (where applicable).

According to East Central College's established Higher Order Thinking/ Common Learning Objective assessment schedule, the Mathematics Department will assess the CLO: Creative and Critical Thinking by administering in designated spring semesters the Mathematics CAAP in College Algebra, Business Math, Applied Algebra & Trig, Pre Calculus, Stats, Calculus 1 & Calculus 2, and the Critical Thinking CAAP test RNS, Metric and Non-metric Geometry and Math for Art & Design.

Data for the above items will originate from both the Math Department's own records, as well as the Institutional Research Department. An assessment report including the above items will be submitted to the vice president of Instruction annually in June.

Additional items to be reviewed periodically include:

- Textbooks and course materials, including technology.
- Updates of departmental final exams and midterms.
- Course descriptions and pre-requisites.

Additionally, in accordance with East Central College's schedule of divisional program review, the department will conduct a complete program review on its developmental mathematics program and gateway courses of College Algebra and Statistics every five years. The review will be presented to and reviewed by a committee of internal and external constituents and include but not be limited to items such as:

- Program mission
- Staffing and organization
- Learning outcomes
- Student data
- SWOT analysis

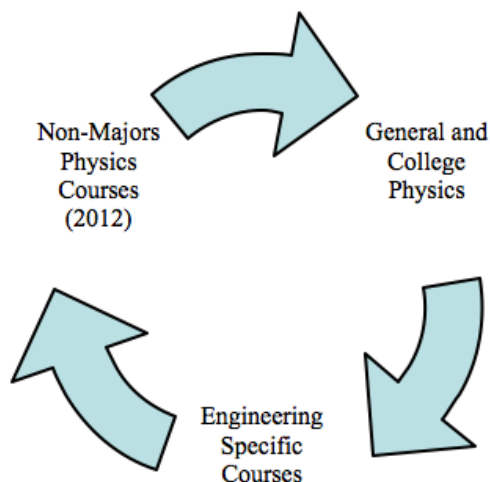
The department will contribute annually to other program reviews, which include math courses, for example Business Math will be reviewed when the business program review is conducted.

**Physics and Transfer Engineering (Spring 2014)**

Submitted by: **Ann Boehmer, math & physical science division chair**

**Individual Course Assessment**

Courses will be reviewed and assessment reports submitted every three years in the following rotation, beginning in 2012:



Items utilized for individual course assessment, continuity and retention will include:

- Revision of course goals and learning outcomes.
- Review of departmental pre-tests/final exams and external exams (where applicable).
  - Item analysis.
  - Alignment with course objectives.
  - Force Concept Inventory test produced by Arizona State University will be utilized in Survey of Physical Science and Introduction to Physics.
  - Force Concept Inventory, produced by Arizona State University administered in College Physics and General Physics.
  - Missouri S&T's EE 281 Circuit exam for Intro to Circuits.
- Success rates as they relate to previous and subsequent courses.
- CAAP/other embedded assessments in selected courses.
- Transfer student survey is administered to students after their first year at Missouri S&T

Course assessment outlined above will include all sections offered in all formats (traditional and alternative), and at all locations (main campus and all satellite location offerings) taught by full-time or adjunct faculty (where applicable).

**CLO Assessment**

The departments will assess the CLO of Critical and Creative Thinking by administering the Science Reasoning CAAP test on a rotating basis in their courses with a Higher Order Thinking (HOT) designation, which are Introduction to Physics Lecture, Survey of Physical Science, College Physics I Lecture and General Physics I

Lecture. Following East Central's established rotation, starting fall 2014, the Science Reasoning CAAP test will be administered as an entry skills assessment with subsequent testing every four years. Starting spring 2016, post-tests using the science reasoning test will be administered in previous designated classes with repeated assessment every four years.

The institution's CLOs for Communication, assessed via ECC's common embedded rubric in General Physics II Lab, and Ethics and Social Responsibility, in the Intro. To Engineering Design using the assessment tool developed by the AQIP action project committee will be administered annually.

### ***Program Review Schedule***

In accordance with East Central College's schedule of divisional program review, physics and transfer engineering will report every five years. Non-major physics is scheduled for 2014 and transfer engineering (which includes General Physics and the calculus sequence) in 2016. The review will be presented to and reviewed by a committee of internal and external constituents and include but not be limited to items such as:

- Program mission.
- Staffing and organization.
- Learning outcomes.
- Student data.
- SWOT analysis.

Additionally, the Engineering Department will further develop its advisory board, including membership recruitment, advisory board assessment and rotational meeting schedule.

**Transfer Engineering (fall 2013 – spring 2014)**

Submitted by: **Ann Boehmer, math & physical science division chair**

**Overview**

A “pre” status was implemented for the engineering degree, and General Physics I was moved to weekly online testing.

These actions were taken to provide better assessment numbers, immediate feedback and utilize more problem-solving in class. For example, students who enter the program but haven’t reached Calculus I, would be declared pre-engineering.

**Results/Impact**

Advisors were assigned more effectively to assist students. The student system is unable to separate informational numbers for reporting purposes, thus no change is shown in reporting data.

There was sporadic improvement in final exam scores and success rate improvement in Statics, which has General Physics I as a pre-requisite; the Statics success rate increased from the mid-60 to the mid-80 percent range.

**Supporting Evidence/Information**

Introduction

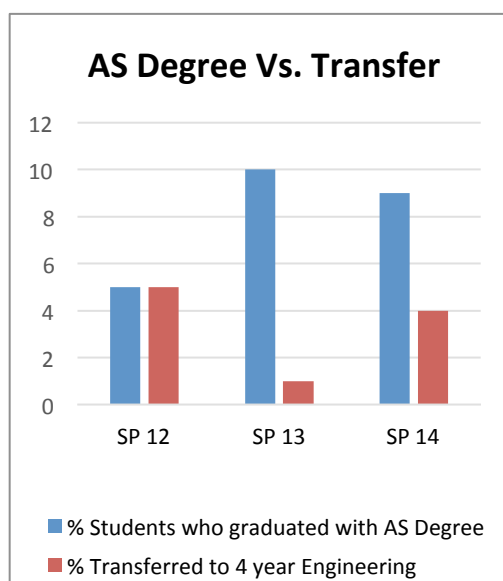
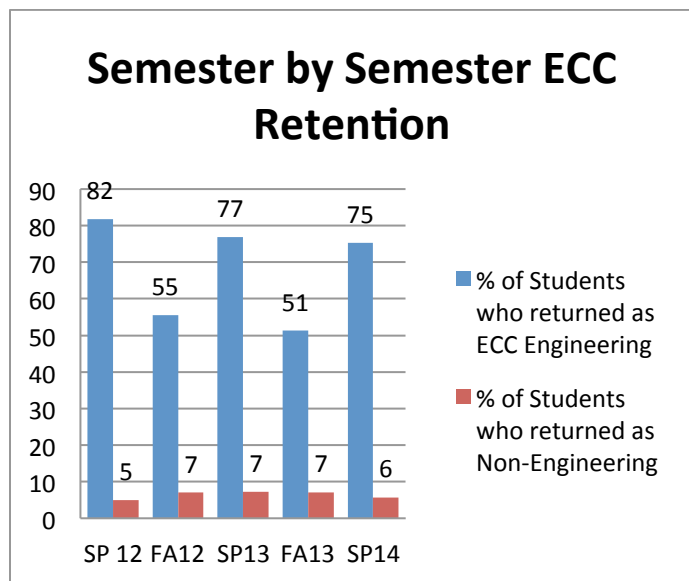
The ECC Transfer Engineering program prepares students to transfer to a four-year institution for completion of an engineering degree. ECC offers its engineering students a complete two-year program, which includes the basic physics and calculus classes, as well as upper-level science and engineering electives.

With the ECC AS degree in Transfer Engineering, students are able to focus on any of the 15 different fields of engineering. Those students who aren’t ready for entry into the engineering program at Missouri S & T can enroll in the pre-requisite classes, or take advantage of the increased support (instructional assistant, reduced class size, more attention, group work environment, etc.) offered at East Central College.

Improving Retention: “Pre” Status

Two of the three goals in the last reporting period focused on improving retention for the program. One of the difficulties of retention in the program is the level of mathematical competency required for a student to successfully complete the AS in Engineering degree. Many students begin the curriculum in a remedial math class and, having no success, transfer to another program.

As a result, it was proposed in the last assessment report that a “pre” status be added to the degree to separate those students not yet enrolled in Calculus I. Unfortunately, the database system used by ECC cannot accommodate that distinction for reporting purposes. Thus the retention data has not shown any noticeable changes and may be skewed by these “pre” status students. The following charts depict the retention rates, as well as a comparison of students who transferred versus completed degrees.

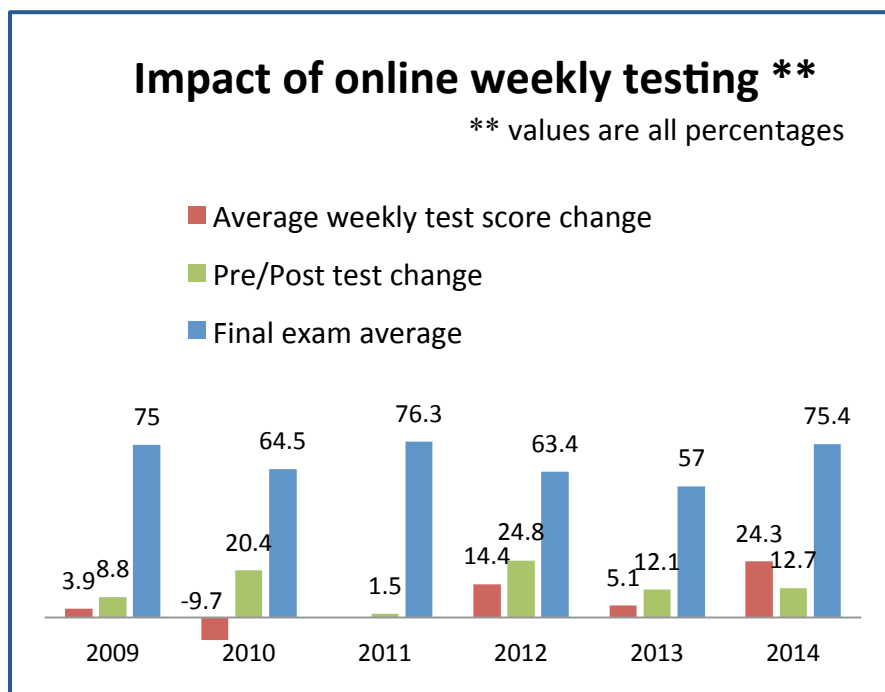


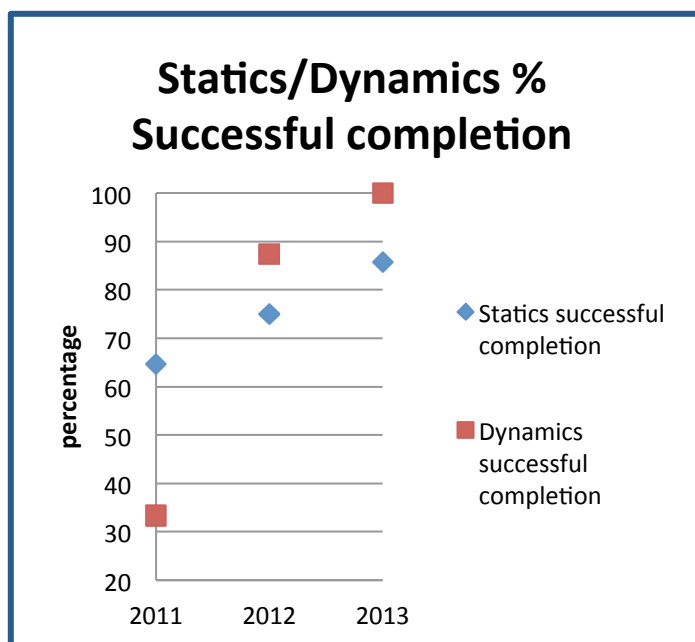
It does appear that, of the students who return the following semester, a substantial number do remain as engineering majors in the spring semesters. Students electing to transfer instead of graduating with a two-year degree, often find themselves (due to starting at some other initial point or repeating a course) out of sequence with the program’s fact sheet and unable to complete a schedule since many courses are offered only once a year.

#### Improving Retention: Weekly Reporting

The second focus for retention was to move the weekly testing in general Physics I to an online platform to provide immediate feedback and assist in providing more lecture time to improve the student’s understanding of the course material through problem solving.

Additionally, in General Physics I, a nationally used exam (the Force Concept Inventory), produced by Arizona State University is utilized as well as a departmental final to assess the students’ comprehension. The adjacent table illustrates the impact of online weekly testing on the various assessments.



Statics and Dynamics Sequence

In the Engineering Mechanics sequence of Statics and Dynamics the success rate increased each year for the past three years. A contributing factor may be the adjustments to General Physics I resulting from the addition of online weekly testing.

Changes in degree requirements at Missouri S&T may have contributed to a decline in enrollment. The degree allows for Dynamics to be taught as 2-D or 3-D with the student's major indicating the course. A goal for ECC's engineering program is to explore alternative options in offering 2-D and 3-D courses.

Introductory Circuit Theory

Introductory Circuit Theory (EG 2303) has a unique transfer opportunity with Missouri S&T. Students successfully completing EG 2303 at ECC receive transfer credit for course EE281 (non-major circuits class at S&T). However the students in EG 2303 are given the final exam from the S&T Circuits class, which is designed for the Electrical and Computer Engineering students. ECC students passing the final exam with a 75 percent or better receive credit for course EE151 at S&T.

The following table shows the success for the last four years. (Note: In 2012 the class instructor was changed which may have contributed to the increased success rate).

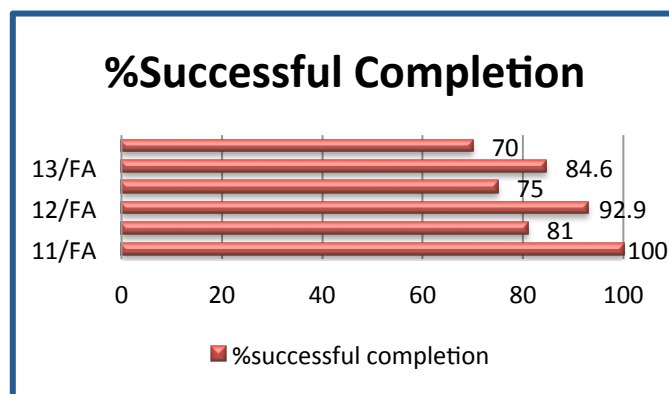
<b>Circuits</b>			
Year	Total Enrolled	% Successful at ECC	% Successful on S&T Final
2011	8	75.0	37.5
2012	8	77.0	37.5
2013	9	88.9	55.6
2014	9	78.0	66.7

### C++ Programming

In reviewing the C++ Programming class (EG 2203 and EG 2211), the success rates were found to vary as seen in the adjacent table. The enrollment in fall semester is lower than the spring semester but the success rate is higher.

One contributing factor to lower fall enrollment is the timing as to when a student satisfies the pre-requisite for C++ (i.e. Pre-Calculus). Further assessment of the optimal time to offer C++ may be warranted.

In the past three years, the program has seen a slight drop (eight to nine percent) in enrollment. The reputation of the program continues to be highly regarded by the local population and the University of Missouri System. With the increase in promotion of STEM field careers through area employers, the media and high school personnel, hopefully, this focus on STEM will assist in growing the engineering enrollment.



### **Departmental Goals**

The department has set the following goals for further improving this degree plan:

1. Work with the ECC data system administrators and Academic Council to determine a way to separate the “pre” status students for more accurate assessment of the program.
2. Address the low enrollments in the statics/dynamics sequence through potential collaboration with other community colleges.
3. Examine the option of returning to the 2-D versus 3-D Dynamics course offering as well.
4. Evaluate the C++ course to find a correlation between the lower enrollments and lower completion ratios and thus establish an optional scheduling time.
5. Investigate opportunities to again offer the Metallurgy class. This class was previously offered as online through an arrangement with Missouri S&T.
6. Continue to find ways to recruit engineering majors to the program.

## Nursing & Allied Health

This division submitted reports on the following academic programs and areas:

- Nursing
- Occupational Therapy Assistant
- Paramedic Technology (Emergency Medical Services)
- Radiological Technology
- Respiratory Care



### ***Nursing (Union Campus)***

Assessment Measure: National Council of State Board of Nursing Exam (NCLEX-RN) (2013 calendar year)

Submitted by: **Robyn Walter, chair of the nursing and allied health division**

#### **Overview**

Graduates have the following curriculum outcome measures:

- Utilize the nursing process as the basis for the delivery of health care.
- Participate knowledgeably in the prescribed medical regime.
- Establish and maintain positive interpersonal relationships with clients, families and other members of the health team.
- Function as a teacher of clients who need information or support to maintain health.
- Serve as a manager of nursing care for a group of clients with a variety of health problems in various settings.
- Function as a member within the profession of nursing.

These outcome measures are assessed at various points during the curriculum in a formative process. Graduates are assessed in a summative nature when they sit for the NCLEX-RN comprehensive examination. Successful completion of the examination is required to enter the profession as a registered nurse.

#### **Assessment Results**

Program US 17-402600 (Rolla)

- 23 nursing graduates
- 23 tested
- 18 passed
- Five failed

2013 Program Pass rate: 78.2 percent \*

Program US 17-407000 (Union)

- 25 nursing graduates
- 25 tested
- 22 passed
- Three failed

2013 Program Pass rate: 88 percent \*

2013 Missouri Pass rate: 87.2 percent \*

2013 National Pass Rate: 83.04 percent \*

*\* First-time testing results*

#### **Conclusion**

The National Council of State Boards of Nursing (NCSBN) voted on Dec. 17, 2012, to raise the passing standard for the NCLEX-RN Examination (the National Council Licensure Examination for Registered Nurses).

The passing standard will be revised from the current -0.16 logits # to 0.00 logit beginning April 1, 2013, with the implementation of the 2013 NCLEX-RN Test Plan. The new passing standard will remain in effect through March 31, 2016.

After consideration of all available information, the NCSBN BOD determined that safe and effective entry-level registered nurse (RN) practice requires a greater level of knowledge, skills, and abilities than was required in 2009 when NCSBN implemented the current standard. The passing standard was increased in response to changes in U.S. health care delivery and nursing practice that has resulted in the greater acuity of clients seen by entry-level RNs.

The BOD used multiple sources of information to guide its evaluation and discussion regarding the change in passing standard. As part of this process, NCSBN convened an expert panel of 12 nurses to perform a criterion-referenced standard setting procedure. The panel's findings supported the creation of a higher passing standard.

NCSBN also considered the results of national surveys of nursing professionals, including nursing educators, directors of nursing in acute care settings, and administrators of long-term care facilities. In accordance with a motion adopted by the 1989 NCSBN Delegate Assembly, the NCSBN BOD evaluates the passing standard for the NCLEX-RN Examination every three years to protect the public by ensuring minimal competence for entry-level RNs. NCSBN coordinates the passing standard analysis with the three-year cycle of test plan evaluation.

The results were reviewed in the Total Program Evaluation. There are some changes to the admission and curriculum in regard to admission

# Source: National Council State Boards of Nursing (NCSBN)

**Nursing (NCLEX-RN Pass Rates)**

Timeframe: 2012-2013 Academic Year

Submitted by: **Robyn Walter, chair of the nursing and allied health division**

**1. What Action (Improvement, Change, Etc.) Was Taken in the Program/Class Indicated?**

*Analysis of Pass Rates:*

*Program US 17-402600 (Rolla)*

- 23 nursing graduates
- 23 tested
- 18 passed
- Five failed

2013 Program Pass rate: 78.2 percent \*

*Program US 17-407000 (Union)*

- 25 nursing graduates
- 25 tested
- 22 passed
- Three failed

2013 Program Pass rate: 88 percent \*

2013 Missouri Pass rate: 87.2 percent \*

2013 National Pass rate: 83.04 percent \*

*\* First-time testing results*

*Further Analysis Reveals the Following:*

<b>ECC Generic and Bridge Program Pass Rate Comparison</b>		
	<i>Rolla</i>	<i>Union</i>
General Graduates	15	18
Generic Pass	13	17
Generic Pass Rate	86%	94%
<hr/>		
Bridge Graduates	8	7
Bridge Pass	5	5
Bridge Pass Rate	62%	71%

The bridge program has fewer graduates (specialized program) and also carries a lower pass rate for the last several years.

*Action Taken:*

In response to the N-CLEX-RN increase in difficulty level, some changes were made across the curriculum while other changes are targeted directly to the Bridge program.

*Overall Curriculum:*

- Effective Dec.1, 2014, applicants for incoming generic students, a cumulative GPA of 2.75 will be required for admission.
- Effective Aug. 1, 2015, applicants for the bridge students, a cumulative GPA of 2.75 will be required for admission.
- Effective fall 2014, for all incoming nursing students, a 77 percent minimum progression policy from course to course, on exams only, will be in place.

*Bridge Program:*

- Effective fall 2013, a student must score a 700 or greater on the HESI LPN to RN mobility exam in order to successfully pass the Successful Transitions in Nursing course. Two attempts are allowed.

**2. Why Was This Action Taken? (Provide Report, Link, Other, that Led to the Action In [1.]**

The above changes are made to address the increased difficulty level of the N-CLEX-RN exam. See assessment report for details. These changes will increase the academic readiness of levels of the applicant pool as well as increase readiness by increasing the progression standard.

**3. Describe the Results/Impact/Change Based on the Action.**

The full impact will not be evaluated for two admission cycles.

**4. Provide Any Supporting Evidence or Information.**

See above for analysis of the pass rate data.

**Occupational Therapy Assistant (ECC-Union Campus)**

Assessment Measure: National Board for Certification in Occupational Therapy (NBCOT) (2013 program end)

Submitted by: **Lea Brandt, MHPC, OTA program director**

**Overview**

Graduates curriculum outcome measures are set by the Accreditation Council of Occupational Therapy Education (ACOTE). These outcome measures are assessed at various points during the curriculum in a formative process.

Graduates are assessed in a summative nature when they sit for the NBCOT comprehensive examination. Successful completion of the examination is required to enter the profession as a certified occupational therapy assistant.

**Assessment Results**

- Six graduates
- Six tested
- Six passed
- Zero failed

2013 ECC Program Pass rate: 100 percent \*

MHPC Consortium Pass rate: 95 percent \*

2013 National Pass rate: 85 percent \*

The results were reviewed in the Total Program Evaluation. There were no significant changes to the curriculum or student services.

*\* First-time testing results*

***Paramedic Technology (Emergency Medical Services)***

Assessment Measure: Psychomotor (Practical) Exam (fall 2013, spring 2014)

Submitted by: ***Robyn Walter, chair of the nursing and allied health division, and Tom Fitts, assistant professor of EMS/Paramedics***

**Overview**

Paramedic students, in order to become licensed in Missouri, must pass the National Registry of Emergency Medical Technicians Psychomotor and Cognitive Exams. Students are required to complete the Psychomotor (Practical) exam as part of the Paramedic 4 course. Students are not allowed to take the Cognitive exam until all clinical skill requirements are completed.

Students have 24 months from the time they begin Paramedic 1 in which to complete the clinical skill requirements. Students must complete the licensing process within 24 months of finishing the program, which is when they have completed all clinical skill requirements and classroom content.

**Practical Exam Results**

Students must take and pass 12 practical stations in order to be licensed. The practical exam is administered by approved testing locations under the guidelines of the National Registry of Emergency Medical Technicians.

Students take all 12 practical skills stations during one day of testing. If a student does not successfully complete a station, they must retest only that station. If a student does not successfully complete six or more stations, they must retest all 12 stations. Information from this semester is available on seven students:

- 10 students are in the two classes.
- Six students have tested.
- A total of 72 stations were tested.
- Seven stations were failed on the initial attempt.
- Three students passed all stations on the initial attempt.
- Pass rate: 90 percent pass rate.
- First re-test pass rate (five of seven stations): 71 percent.
- Two students each passed one station on the second retest (third attempt).
- All six students have passed all stations.

Section 4 – Nursing & Allied Health Division Reports

<b>Skill Assessed</b>	<b>Passed - First Attempt</b>	<b>Passed - Re-Test</b>
Patient Assessment-Trauma	6	N/A
Ventilatory Management-Adult	4	2
Ventilatory Management - Alternative Device	6	N/A
Dynamic Cardiology	5	1
Static Cardiology	5	1
Oral Station A	5	1
Oral Station B	6	N/A
Intravenous Therapy	6	N/A
Intravenous Bolus Medication	6	N/A
Pediatric Ventilatory Management	6	N/A
Pediatric Intraosseous Infusion	5	1
Random Skills	5	1

State and national pass rates are not available for benchmarking. There was not one skill set that indicated a trend of difficulty for the students. The failed stations were few and spread over several testing areas. The Paramedic Technology (EMS) program does not receive data for reasons for failure such as a routine fail or fail due to an omission of a critical skill.

**Cognitive Exam Results**

The National Registry Cognitive Exam is a computer-based, adaptive examination. This exam uses different questions, many based on scenarios, to cover six areas: cardiology, medical, trauma, operations, airway/breathing and OB/pediatrics. The results are given as pass or fail.

- Six students have tested.
- Five students passed on the initial exam.
- 83 percent pass rate on initial exam.
- One student has not re-tested.

For calendar year 2013, the National Registry reports 73 percent of students passed the Cognitive Exam on the first attempt. Missouri had a 66 percent pass rate on the first attempt.

Plan: Continue to track this data each year and observe for trends related to specific skills set.

### **Radiological Technology (ECC-Rolla Campus)**

Assessment Measure: American Registry of Radiologic Technologists Exam (2013 program end)

Submitted by: **Maggie Ogden, program director of radiologic technology**

#### **Overview**

Graduates have the following curriculum outcome measures:

- Facilitates development of critical thinking and problem solving skills.
- Creates an appreciation for the importance of professionalism and professional growth in a radiography career.
- Enables attainment of the knowledge and skills appropriate for an entry-level radiographer.
- Promotes graduates becoming members of the health care team.

These outcome measures are assessed at various points during the curriculum in a formative process. Graduates are assessed in a summative nature when they sit for the ARRT comprehensive examination. Successful completion of the examination is required to enter the profession as a Registered Technologist in Radiography RT(R).

#### **Assessment Results**

- 14 radiography graduates
- 14 tested
- 14 passed the first time

2013 program pass rate: 100 percent \*

2013 average score 86.3 percent

2013 national pass rate: 93 percent \*

2013 average score: 89.6 percent

The results were reviewed in the Total Program Evaluation. There were no significant changes to the curriculum or student services.

*\* First-time testing results*



### **Respiratory Care (ECC-Rolla Campus)**

Assessment Measure: National Board for Respiratory Care: Certified Respiratory Therapist Exam, (2013 program end)

Submitted by: **Diane Oldfather, MEd, BHS, RRT, RCP, respiratory care program director and Robyn Walter, chair of the nursing and allied health division**

### **Outcome Measures**

Graduates have the following curriculum outcome measures:

1. Implements respiratory therapy procedures on an individual basis according to the needs of each patient/client and as prescribed by a physician.
2. Effectively communicates verbally and nonverbally with patients/clients and significant others in implementing and evaluating the effectiveness of respiratory care.
3. Exhibits attitudes and behavior that are respectful to patient/client, significant others and other health care team members.
4. Exhibits effective verbal and written communication skills in relaying information to other health care providers.
5. Participates in appropriate, efficient and cost-effective delivery of health care as a resourceful member of the health care team.
6. Assumes responsibility in delivering respiratory care using safe and effective practices defined by the various regulating agencies.
7. Uses good judgment in implementing and carrying out a plan of care appropriate to the patient's needs.
8. Participates in educational and professional activities, which will increase intellectual, technical and professional growth.

### **Credentialing Pass Rate**

These outcome measures are assessed at various points during the curriculum in a formative process. To be eligible to become a Registered Respiratory Therapist, the candidate must graduate from an associate degree program accredited by the Committee on Accreditation for Respiratory Care, and must take the National Board for Respiratory Care Written Certified and Registry Exams and the Clinical Simulation Examination for the Advanced Respiratory Therapist.

A minimum score of 75 percent must be achieved on the Certification Examination to become a Certified Respiratory Therapist before eligibility to test for the Registered Respiratory Therapist exams. A minimum score of 70 percent on the Written Registry and Clinical Simulation Examinations must be attained to become a Registered Respiratory Therapist.

- 18 graduates
- 18 tested
- 15 passed
- Three failed

2013 Program Pass Rate: 83.3 percent

National Average: 92.1 percent

National Threshold: 80 percent

**Attrition**

- 2013 Attrition Rate: 25 percent
- National Average: 19.2 percent
- National Threshold: 40 percent (below 40 percent meets threshold)

**Job Placement**

- Positive Job Placement Rate: 66.7 percent
- National Average: 85.6 percent
- National Threshold: 70 percent

**Satisfaction Measures**

- Employer Satisfaction: 100 percent
- National Threshold: 80 percent
  
- Graduate Satisfaction: 100 percent
- National Threshold: 80 percent

**Conclusions**

The results were reviewed in the total program evaluation. Some changes in admission procedures and course pre-requisites have been made over the last two years including a standardized admission examination. While job placement levels fall slightly below CoARC requirements, the three-year cumulative measure does not (72%). The job placement measures are being considered during clinical placement of students.

## Science

This division submitted reports on the following academic programs and areas:

- Biology and Environmental Science
- Chemistry
- Health Science and Biology

***Biology and Environmental Science (Program Review – Unit 1: General Studies)***

Submitted by: **David Brooks, Ph.D., assistant professor of biotechnology and biology**

## **I. General Program Information**

### ***1. Biology Department Mission Statement***

The mission of East Central College Biology Department is to instill in students the most current, accurate and comprehensive content knowledge in the field; enhance critical thinking capacity; and impart information management skills and the skills to practice in the field of science. The courses in Unit I will aid in fulfilling a student's general education curriculum.

### ***2. Organization and Structure***

The Biology Department is part of the Science Division. In addition to the Department of Biology, the Science Division also consists of the Chemistry, Geology, Biotechnology, Health Science, and Chemical Technology Departments. Division business is conducted through weekly department meetings and regular division meetings.

### ***3. Staffing and Credentials: Personnel, Facilities, and Equipment***

- a. The Biology Department currently has seven full-time instructors, as well as adjunct instructors. Some classes in Unit I are regularly taught by adjunct instructors. Of the full-time instructors, all have either a doctorate (four) or research-based master's degree with thesis option (three). While instructors specialize in certain areas (microbiology, A&P or organismal biology, for example), most also teach other courses within Unit I, and a few teach additional coursework in associated departments within the division (Health Science, Biotechnology and Environmental Science).
- b. The department has two laboratory classrooms for general use by Principles of Biology and General Biology. Additionally, there are three preparatory spaces attached to these labs, with chemical hoods, snorkel ventilation and a biosafety hood. There is also a centralized stockroom with chemical hood shared by the biology and chemistry teaching laboratories. In the satellite location in Rolla, the teaching laboratories for conducting biology and chemistry courses have recently been increased from one to two. This increase in classroom space allows the storage of laboratory models and non-hazardous materials in appropriate workspaces, which in turn, reduces damage to these items from improper handling and also allows easy accessibility to the necessary materials when needed for instruction.

### ***4. External Accreditation***

Currently there are no external accreditation organizations for the biology program. The Biology Department will continue to develop assessments for use in General Studies courses.

## **II. Learning Outcomes**

### **1. Program Goals**

The program goals are to provide quality, current instruction in biology for students. To aid in this effort, the program review process will identify areas that need improvement and develop action plans to resolve any deficiencies or areas of concern.

### **2. Course/Curriculum Information**

Please see Appendix 1 for description of Biology, Environmental Science and Laboratory Safety for Students courses.

### **3. Transfer Information**

Transfer of the courses General Biology, Introduction to Life Sciences and Introduction to Environmental Science have been accepted at many four-year schools. These courses are well structured and equivalent to courses offered by other colleges and universities.

### **4. Recent changes/Updates**

- a. Fall 2012 – Course numbers for some biology courses were revised so that lectures and labs are considered a single course. This reduces confusion regarding grades and co-requisite requirements.
- b. A new assessment tool for General Biology was established by auditing the questions from the previous assessment.
- c. Spring 2014 - Fall 2013: Pre-requisites for Microbiology and A&P I/II were changed to General Biology, changing student population in that non-majors class.

### III. Students

#### A. Department of Biology

##### Enrollment Data for Biology Courses

**Table A1: Enrollment by Semester for Biology Courses**

	11/FA	12/SP	12/SU	12/FA	13/SP	13/SU	13/FA	Total
BI*1203	104	91	16	92	75	8	58	<b>444</b>
BI*1305	144	116	0	132	122	15	146	<b>675</b>
<b>Total</b>	<b>248</b>	<b>207</b>	<b>16</b>	<b>224</b>	<b>197</b>	<b>23</b>	<b>204</b>	<b>1119</b>

##### Enrollment Data for Biology Courses

**Table A2: Grade Distribution for Introduction to Life Science (BI 1203)**

	11/FA	12/SP	12/SU	12/FA	13/SP	13/SU	13/FA	Overall
Grades of A, B, C	68	37	10	45	50	5	31	246
Grades of D, F	24	38	5	30	15	3	16	131
Withdrawal	12	16	1	17	10	0	11	67
<b>% Successful</b>	<b>65.38%</b>	<b>40.66%</b>	<b>62.50%</b>	<b>48.91%</b>	<b>66.67%</b>	<b>62.50%</b>	<b>53.45%</b>	<b>55.41%</b>

**Table A3: Grade Distribution for General Biology Lecture (BI 1303\*)**

	11/FA	12/SP	12/SU	Overall
Grades of A, B, C	89	79	Data Unavailable	168
Grades of D, F, I	28	15	Data Unavailable	43
Withdrawal	27	22	Data Unavailable	49
<b>% Successful</b>	<b>61.81%</b>	<b>68.10%</b>	Data Unavailable	<b>64.62%</b>

**Table A4: Grade Distribution for General Biology Laboratory (BI 1312\*)**

	11/FA	12/SP	12/SU	Overall
Grades of A, B, C	89	78	Data Unavailable	167
Grades of D, F, I	28	16	Data Unavailable	44
Withdrawal	27	22	Data Unavailable	49
<b>% Successful</b>	<b>61.81%</b>	<b>67.24%</b>	Data Unavailable	<b>64.23%</b>

**Table A5: Grade Distribution for General Biology Lecture and Laboratory (BI 1305)**

	<b>12/FA</b>	<b>13/SP</b>	<b>13/SU</b>	<b>13/FA</b>	<b>Overall</b>
Grades of A, B, C	96	83	15	96	290
Grades of D, F, I	22	25	0	28	75
Withdrawal	14	14	0	22	50
<b>% Successful</b>	<b>72.73%</b>	<b>68.03%</b>	<b>100.00%</b>	<b>65.75%</b>	<b>69.88%</b>

\* General Biology course structure prior to fall 2012

### **B. Department of Biology**

#### Enrollment Data for Environmental Science Course

**Table B1: Enrollment by Semester for Introduction to Environmental Science (ES 1203)**

	<b>11/FA</b>	<b>12/SP</b>	<b>12/SU</b>	<b>12/FA</b>	<b>13/SP</b>	<b>13/SU</b>	<b>13/FA</b>	<b>Total</b>
ES 1023	89	109	33	91	112	20	99	<b>553</b>
<b>Total</b>	<b>89</b>	<b>109</b>	<b>33</b>	<b>91</b>	<b>112</b>	<b>20</b>	<b>99</b>	<b>553</b>

#### Grade Distribution for Environmental Science Course

**Table B2: Grade Distribution for Introduction to Environmental Science (ES 1203)**

	<b>11/FA</b>	<b>12/SP</b>	<b>12/SU</b>	<b>12/FA</b>	<b>13/SP</b>	<b>13/SU</b>	<b>13/FA</b>	<b>Overall</b>
Grades of A, B, C	63	84	27	69	86	16	66	411
Grades of D, F	13	14	5	15	17	2	18	84
Withdrawal	13	11	1	7	9	2	15	58
<b>% Successful</b>	<b>70.79%</b>	<b>77.06%</b>	<b>81.82%</b>	<b>75.82%</b>	<b>76.79%</b>	<b>80.00%</b>	<b>66.67%</b>	<b>74.32%</b>

## Institutional Research Data for Introduction to Environmental Science Course

<b>FIVE YEAR PROGRAM REVIEW: Environmental Science</b>					
No dual credit or articulated data are used in this study					
<b>Enrollments Headcount</b>					
Department	2009	2010	2011	2012	2013
ES	191	192	283	221	236
Note: Student count is duplicated.					
<b>Course Frequencies</b>					
title	2009	2010	2011	2012	2013
# of Courses	1	1	1	1	1
# of Sections	9	8	12	10	10
# Enrolled	191	192	283	221	236
Average Section Size	21.22	24.00	23.58	22.10	23.60
# of Seats Offered	220	219	309	277	287
% Seats Filled	86.8%	87.7%	91.6%	79.8%	82.2%
Note: Arranged sections are excluded; cross listed sections counted as one.					
<b>Course Completion &amp; Withdrawals</b>					
	2009	2010	2011	2012	2013
Grades of A, B, C	139	146	201	166	182
Grades of D, F	36	30	51	28	37
Withdrawal	16	16	31	27	17
% Successful	72.77%	76.04%	71.02%	75.11%	77.12%
<b>Student/Faculty Ratio</b>					
	2009	2010	2011	2012	2013
Student FYE	19.10	19.20	28.30	22.10	23.60
Faculty FTE	0.90	0.80	1.20	1.00	1.00
Student/Faculty Ratio	21.22	24.00	23.58	22.10	23.60
Note: Faculty FTE = add each course section credit and divide the sum by 30.					
<b>Department Costs</b>					
Cost Center	2009	2010	2011	2012	2013
10114 Environmental Scienc	0	200	10063	15788	15336
Cost per Student FYE	0.00	10.42	355.58	714.39	649.83
<b>Enrollments FYE</b>					
Department	2009	2010	2011	2012	2013
ES	19.10	19.20	28.30	22.10	23.60
Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.					
<b>Class Size Distribution</b>					
class size	2009	2010	2011	2012	2013
1-10	0	0	0	0	1
11-15	2	0	0	0	0
16-20	1	2	2	2	1
21-30	6	5	10	8	8
31-40	0	1	0	0	0
Over 40					
Note: Arranged sections are excluded.					
<b>Credits Taught by Faculty &amp; Adjuncts</b>					
	2009	2010	2011	2012	2013
Credits Faculty	21	21	30	12	9
Credits Adjuncts	6	3	6	18	21
% Credits Faculty	77.8%	87.5%	83.3%	40.0%	30.0%
% Credits Adjuncts	22.2%	12.5%	16.7%	60.0%	70.0%
<b>Faculty/Student Load</b>					
	2009	2010	2011	2012	2013
FT Faculty/Student Load	0.70	0.70	1.00	0.40	0.30



## IV. Advisory Committee Information

### 1. Minutes, Meetings

This is the first self-study of general studies courses in the history of ECC's Biology and Environmental Science Departments.

### 2. Membership

Name	Role/Institution
David Brooks	Program Review Coordinator, ECC
Fatemeh Nichols	Science Division Chair, ECC
Jean McCann	Vice President of Instruction, ECC
Mark Manteuffel	Assistant Professor, Biology, STLCC-FV
Leigh Kolb	English and Journalism Instructor, ECC
Dennis Pohlman	Assistant Professor, Government/History/Political Science, ECC
Wendy Pecka	Instructor, Psychology
Eric Lawrence	Assistant Professor, Mathematics, ECC

## V. Assessment Plan and Data

### 1. Assessment Plan

Please refer to **Appendix 2** for the details of the Unit I assessment plan.

### 2. Assessment Results

#### **Principles of Biology I (BI 1325)**

Principles of Biology I was recently covered in a Unit II self-study and is thus not included here.

#### **General Biology (BI 1305)**

General Biology is a lecture and lab based course designed to introduce core concepts in life science.

#### Data Source

The assessment report is for General Biology class sections taught at the main campus in Union and the Rolla location during fall 2011 to the fall 2013 period. The data used for this report originated from multiple sections of the course taught during this period.

#### Type of Assessment

Assessment was performed by comparing scores made on a pre-test to that made on a post-test in all the course sections from which data for this report have been obtained. The exam used was generated internally by the full-time faculty teaching this course.

The pre-test for this course is administered during the first meeting and the post-test, which is same as the pre-test, is administered at the end of the semester and in most cases during the day final exam is conducted. It is the discretion of each individual faculty to use the score made on the pre-test and post-test to calculate the course grade. Faculty may choose to use the assessment scores for assessment purpose only.

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors, are being furnished.

**Table 1: Score Comparison for 19 Sections Combined**

<b>Assessment Period</b>	<b>Average (%)</b>
Pre-Test	35.6
Post-Test	52.88
Percentage Change in Score	17.20%

On an average there was a **17.2 percent increase** in average student score in all sections of General Biology.

### Summary

Questions that students did poorly on were either those that were constructed poorly or questions from topics that were not emphasized heavily during the semester. New methods could be explored to teach concepts that students consistently do poorly on. Questions that tested understanding of chemistry or metabolic processes were of the most challenging to the students during this assessment period.

All questions that 50 percent or more of the students in some sections answered incorrectly were factual questions that require recall. On the other hand, students in most sections did well on questions that tested conceptual understanding and evaluated higher order thinking. This demonstrates that students' understanding of concepts taught in the General Biology course improved over the course of the semester.

Many questions flagged for poor performance were also those where the students were required to distinguish between two closely related concepts. In these cases (during this assessment cycle particularly), evaluation of the incorrectly chosen answers indicated that while students' grasped the topic, they could not recall specific facts within the topic.

At this time, there is no standardized exam available at this time to evaluate students at the college level in a biology course geared towards non-majors. Therefore, comparison of the student performance to that of students from other institutions is impossible. However, it is important to pinpoint that on an average, students do demonstrate improved learning as shown by the results of the internally generated assessment exam. This exam is updated on a periodic basis as required by the collective effort of all full-time faculty that teach this course.

Some revisions and updates made to the assessment test bank include the revision of wording and formatting of questions to improve clarity. More specifically, the attempted revisions include the use of a more universal language to pose questions, simplification of questions to improve clarity, removal of questions that do not fall within the core topics being assessed, and also removal of questions with dual correct answers and negative choices. The revised test bank was used for the first time in the summer 2013 semester. Since the data collected represents results from only three semesters (summer 2013, fall 2013 and spring 2014) the effect of this update cannot be assessed at this time. Also, there were several inordinate results in the fall 2013 classes that most certainly could be having a disproportionate effect on "average" improvement numbers.

Another change introduced to the test questions was the inclusion of the choice "I don't know" which automatically gets counted as a missed answer on a standardized key. This choice was introduced to reduce the chance of students logging-in the correct answer by coincidence. Since its introduction, more than a few students pick "I don't know" as the answer for many questions on the pre-test and then very few on the post-test. That alone could be leading to inflation of the difference between the pre and post-test scores. Any undue influence the choice "I don't know" might have on the outcome must be further explored.

### Introduction to Life Science (BI 1203)

Intro Life Science is a non-lab based introduction to biological core concepts, ecology and human anatomy and physiology offered for non-major students. This course primarily serves the general education curriculum. There are no pre-requisites for this course.

Unit 1 of the course, the “core concepts,” covers the topics of cells and genetics, Unit 2 covers ecology topics and Unit 3 covers human anatomy and physiology.

The assessment is focused on Unit 1, the “core concepts” of this class (biological chemistry, cell biology, cell division, metabolism, Mendelian genetics), which are the concepts generally taught in the first semester of a two-semester introductory biology sequence. Instructors may teach one of the other units of material as self-study.

#### Data Source

This assessment report is Intro Life Science class sections taught at the main campus, Rolla and Sullivan sites during the following semesters: spring, summer and fall 2012 and spring, summer and fall 2013. The data used for this report originated from 15 sections of the course taught during the above-mentioned time frame.

#### Type of Assessment

Assessment was performed by comparing scores made on a pre-test to that made on a post-test. A common pre-test and post-test was used in all of the course sections from which the data for this report have been obtained. The exam was generated internally, with questions created by the biology faculty. This assessment was generated prior to the start of the spring 2012 semester, and has been used each semester since then.

Students in all sections of Intro Life Science (BI 1203) were given a pre-test on the first class meeting day to assess their current knowledge of biological topics. The students were given the same exam as a post-test at the end of the semester, in many cases during the final exam testing period. Instructors used this assessment at their discretion in calculation of students’ course grades; it may compose part of the students’ final exam grade.

A recommendation for improvement is to streamline the assessment by designing concept-based examinations, and developing a test bank so that questions can be randomized each semester, and the assessment exam can be varied. The exam assures assessment of chapter-specific knowledge, but is currently too narrow. Identifying multiple important concepts within each chapter will better define the concepts (rather than the specific facts) assessed.

**Table 2.1: Score Comparison for In-Person Meeting (12 Sections, N=191, Spring 2012 through Fall 2013, Weighted)**

Assessment Period	Average (%)
Pre-Test	43.14
Post-Test	69.84
Percentage Change in Score	61.89%

Increase in average student score in face-to-face meeting sections of Intro Life Science assessed during the period spring 2012 through fall 2013 was **61.89 percent**.

**Table 2.2: Score Comparison for Web-Hybrid Sections (3 Sections, N=39, Spring 2012 through Fall 2012, Weighted)**

Assessment Period	Average (%)
Pre-Test	48.75
Post-Test	68.89
Percentage Change in Score	41.31%

The increase in average student score in web-hybrid sections of Intro Life Science assessed during the period spring through fall 2012 was 41.31 percent.

**Table 2.3: Score Comparison for All Sections Taken Together (for which Data is Available) (15 Sections, N=230, Spring 2012 through Fall 2013, weighted)**

Assessment Period	Average (%)
Pre-Test	43.71
Post-Test	96.16
Percentage Change in Score	58.22%

The increase in average student score in all sections of Intro Life Science assessed during the period spring 2012 through fall 2013 was 58.22 percent.

#### Summary

Overall student success rate does not seem to depend on delivery method (in-person meeting vs. web-hybrid format, in which class meeting time is reduced by 50 percent). Students demonstrated good factual knowledge, critical thinking skills and a good overall understanding of the concepts tested.

In each section, questions missed did not indicate deficit in comprehension, factual knowledge or critical thinking skills. The assessment results show that students completing the class have understanding of the core concepts covered.

The specific questions answered incorrectly by students on the post-test over the course of this assessment period were consistent. Students in every section struggle with particular concepts, including isotopes (chemistry), classification of biological chemicals (integration of chemistry with nutrition) and genetics (understanding of the molecular basis of traits). Instructors report that these concepts were covered completely, but new techniques need to be explored in the future to enhance students' ability to recall critical information and integrate terminology from different chapters.

### Introduction to Environmental Science (BI 1203)

Introduction to Environmental Science is a non-lab based course designed to introduce the core concepts in life science and physical science that then is used to teach about the major environmental issues.

In the course, the concepts are imparted to the students via traditional lectures as well as through structured online topic discussion forums. Through the discussion forum, students are required to explore cases not discussed in the textbook, share their views and also learn by critiquing the views of their fellow classmates.

#### Data Source

The assessment report is for Introduction to Environmental Science class sections taught at the main campus in Union and the Rolla location during fall 2012, spring 2013 and fall 2013. The data used for this report originated from multiple sections of the course taught during this period.

#### Type of Assessment

Assessment was performed by comparing scores made on a pre-test to that made on a post-test in all the course sections from which data for this report have been obtained. The exam used was generated internally by the faculty teaching this course.

The pre-test for this course is administered during the first meeting. The post-test, which is the same as the pre-test, is administered at the end of the semester and in most cases, on the day the final exam is conducted. It is up to individual faculty members' discretion to use the score made on the pre-test and post-test to calculate the course grade. Faculty may choose to use the assessment scores for assessment purposes only.

#### Combined Data and Assessment for All Sections for Fall 2012, Spring 2013 and Fall 2013:

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors, are being furnished.

**Table 1: Score Comparison for Multiple Sections Combined**

Assessment Period	Average (%)
Pre-Test	64.7
Post-Test	79.7
Percentage Change in Score	23.2%

There was a **23.2% increase** in average student score in all sections of Introduction to Environmental Science assessed during the period of fall 2012 through fall 2013.

#### Recommendations

No specific skill issue has been identified from the assessments. Results for some questions, such as the one on economy of nations and dietary preferences, seem to indicate that misconceptions that students have due to cultural practices or as a result of being educated by popular media does seem to hinder and override what is discussed in class.

While the class was created to educate the students in a manner that would then allow them to overcome such misconceptions and make educated choices, the assessment results demonstrate that the course achieves that goal in many respects but not in all respects. While continued efforts will be made to clarify and educate, the faculty do not always have the tools to educate against the free will of the students.

While the issues created due to cultural inertia may not be solved, student performance over this assessment period spanning three semesters, have pinpointed some issues that could be resolved. For example, some questions flagged for poor performance (where more than 50% of the class answered a question incorrectly) were concepts not covered due to lack of opportunities or time (e.g., questions on regulatory agencies, air pollution, and biotechnology).

The faculty teaching this course must again evaluate those concepts that drew poor performance to judge the validity of the question itself and thus the importance of the concept covered by the questions. Replacing such questions with others from concepts that faculty members do find themselves mentioning or emphasizing often might align the assessment better with the concepts covered. This is not to indicate that concepts that will be replaced for assessment are unimportant. But rather, this is a result of the vastness of the subject matter covered and the need to focus on concepts that are being covered due to time, relevance and general interest.

## **VI. SWOT Analysis**

### **1. Strengths**

- a. Students are receiving equivalent transfer credit at four-year schools for their coursework.
- b. The department as a whole has had little turnover in the past five years, especially among those teaching Unit I courses.
- c. There is a high ratio of full-time faculty to adjunct faculty.
- d. All full-time faculty members hold research-based master's degrees (3) or doctorates (4) in different fields of biology, which allows the department to use the right instructor with the right course.
- e. The East Central College administration is very supportive of offering courses regularly, on a predictable schedule. This helps students to meet their educational goals at East Central College and realize successful transfer to four-year schools in a timely manner.
- f. Full-time lab manager in Union
- g. Strong adjunct faculty; few adjuncts needed to teach classes.

### **2. Weaknesses**

- a. Rolla has limited facilities. While laboratory space has increased recently, limitations still exist.
- b. No full-time lab manager in Rolla.
- c. Difficulty finding qualified adjunct faculty to teach courses. There is a lack of contribution of adjunct faculty to development of courses and the department as a whole.

### **3. Opportunities**

- a. To monitor assessment results to improve student performance for difficult concepts, and have in-depth discussion of rigor of courses taught, concepts covered and assessment.
- b. To develop common syllabi (course objectives, course description and core topics covered) for all courses taught by more than one instructor.

### **4. Threats**

- a. Finding qualified adjunct faculty.
- b. Enrollment is down college-wide and subsequently in Biology Unit I courses. Presence of Missouri S&T, St. Louis Community College, Webster University and University of Missouri –St. Louis in close proximity to East Central College.
- c. There has been a proliferation of online offerings of lab-based science courses.
- d. Higher pay for adjuncts at other local institutions.



## Appendix 1

### *Unit I Course Descriptions*

ES 1023		3.0
	<b>Introduction to Environmental Science</b>	
	Introduction to Environmental Science is a survey course integrating a wide variety of scientific disciplines that provides students with a foundation in the basic principles and unifying concepts of Environmental Science, and provides an awareness of the importance of the earth's systems in their daily life. Topic selection will derive from the major themes of modern environmental science: Basic life and physical science as it relates to the environment, ecological principles, earth materials & land forms, weather and climate, sustaining biodiversity, natural resource usage, maintaining environmental quality, the interrelationships of humans with the natural world, and environmental changes and the scientific method for studying environmental issues; and the application of critical thought to contemporary environmental issues via structured online discussion forums from which 40% of the course grade will be derived.	
BI 1203		3.0
	<b>Introduction to Life Science</b>	
	A study of fundamental biological concepts, with emphasis on human biology. Topics include: the cell, the chemistry of life, the structure and function of human organ systems, genetics, ecology, and evolution.	
BI 1305		5.0
	<b>General Biology Lecture and Laboratory</b>	
	An introductory course involving fundamental biological principles of both plant and animal life. This course is designed to be used as a general education course and is not open to students with credit in botany or zoology or students planning to take an additional course in the biological sciences. The laboratory portion of this course will reinforce topics covered in the General Biology lecture. In lab, the emphasis is placed on scientific method, data collection and reporting, problem solving and critical thinking. Three hours of lecture and four hours of laboratory per week.	
SC 1000		0.0
	<b>Laboratory Safety for Students</b>	
	A course in laboratory safety intended to familiarize students enrolled in a science class (with a laboratory component) with proper laboratory techniques and safety regulations, and procedures. Students will learn to identify hazards relevant to science laboratory and how to minimize hazardous exposure. Laboratory etiquette, attire, chemical and fire safety, and proper use of personal protective equipment (PPE) are among the topics to be covered in the laboratory orientation course. The final portion of the laboratory orientation course will be covered by the instructor in the student's first scheduled laboratory class.	

## APPENDIX 2

### Biology Department Assessment Plan (Unit I)

East Central College  
 Division/Program Assessment Planning Document  
 Department-Division: Biology – Science  
 Semester & Academic year: Spring 2012

ECC learning objectives (general education objectives and CLOs) & program objectives that this assessment will support.

- |  |  |  |
|--|--|--|
| <p>I. General Education Objectives</p> <ul style="list-style-type: none"> <li>a. Life and Physical Science</li> <li>b. Higher order thinking</li> <li>c. Valuing</li> <li>d. Managing information</li> </ul> | <p>II. Common Learning Objectives</p> <ul style="list-style-type: none"> <li>a. Creative and critical thinking</li> <li>b. Ethics and social responsibility</li> </ul> | <p>III. Program objectives (Unit specific)</p> |
|--|--|--|

Unit I: General Education Courses (This unit report will be submitted every 3 years alternating with the other units in the Department.)

- III. Program objectives:
- a. Describe and apply basic biological concepts
  - b. Apply the scientific method of creating and testing hypotheses.
  - c. Apply new understanding of biology in novel ways that are useful to humans or that solve problems faced by humans
  - d. Gather and analyze numerical information appropriate including creating and interpretation of graphs and diagrams.
  - e. Demonstrate appropriate technical skills related to biology.

Target Courses	Objectives met	Assessment Tool	Assessment Cycle
General Biology (BI 1305)	I.a, I.b, I.c & I.d	Semester exams, laboratory exams & reports, departmental Pre-test and post-test.	Semester of course offering
II.a & II.b.	II.a. - Collegiate Assessment of Academic Proficiency (CAAP) test; II.b. - Under development	To be determined by the college.	Start with III.a. in Fall 2013
III.a, III.b, III.d & III.e.	Appropriate assessment tool for the objective chosen will be used	To be determined by the college.	Start with III.a. in Fall 2013
Introduction to Life Science (BI 1203)	I.a, I.b, & I.c	Semester exams & departmental Pre-test and post-test.	Semester of course offering
II.a & II.b.	II. a. - CAAP test; II. b. - Under development	To be determined by the college.	To be determined by the college.
III.a, III.b, & III.c	Appropriate assessment tool for the objective chosen will be used	To be determined by the college.	Start with III.b. in Fall 2013

Target Courses	Objectives met	Assessment Tool	Assessment Cycle
<b>Environmental Science</b> (ES 1023)	I.a, I.b & I.e	Semester exams, online discussion forums on environmental issues & departmental pre-test and post-test	Semester of course offering
	II.b.	Under development	To be determined by the college.
	III.b, III.c.& III.d	Appropriate assessment tool for the objective chosen will be used	Start with III.c. in Fall 2013
<b>Principles of Biology I</b> (BI 1325)	Refer to Unit II	Refer to Unit II	Refer to Unit II

## **Chemistry**

Course Reviewed: CH 1105: Introductory Chemistry (Fall 2009 – Spring 2014)

Submitted by: **Matthew Monzyk, Ph.D., associate professor of chemistry**

### **Overview**

The introductory textbook was changed. The laboratory experiments were also changed to material that targeted the intermolecular force concept.

The actions were taken to improve student understanding of the concept of “intermolecular forces.” This concept deals with how substances interact and affect solubilities, boiling points, melting points, viscosity, surface tension and interaction of one substance with another. For example, this concept helps explain why water and oil do not mix or why some vitamins can be retained by the body while others cannot.

### **Results/Impact**

Two final exam questions that dealt with the intermolecular force issue were monitored. Question #32 showed a 30 percent improvement, but the other question only showed a 4.8 percent increase in student performance.

### **Supporting Evidence/Information**

This reports reviews different aspects of the assessment data from fall 2009 to spring 2014. Assessment data used pre-test/post-test comparisons, from exams created by the Chemistry Department and a nationally recognized standardized exam created by the American Chemical Society (ACS). The assessment period began after moving into the new ECC Health & Science Building in 2009.

The use of ACS exams for course assessment can directly compare student performance in the courses General Chemistry I and II, Organic Chemistry I and II, but no direct comparison is available for Introductory Chemistry. The reason for this situation is that the curriculum content for Introductory or Fundamental Chemistry courses vary greatly among different academic institutions.

The closest option available from the ACS Exam Institute is an exam created to evaluate students after taking two years of high school chemistry. The difficulty of using this exam is that comparison values (norms) involve comparing students that had two years of high school chemistry to students that had taken one semester of condensed college chemistry. The overall comparison of ACS norms of post-tests given in Introductory Chemistry, General Chemistry I and II along with Organic I and II are given in Table 1.

**Table 1: ACS Standardized Exam Comparison for Chemistry Courses at ECC (all sections)**

Course	Years Assessed	ACS Exam Type	ACS Norm %	ECC Results %
Introductory Chemistry	2009-2014	HS2003, In House	58.4	51.3(ACS), 55.1 all types
General Chemistry I	2009-2014	2002	59.6	70.5
General Chemistry II	2009-2014	2001*	51.7	58.3
Organic Chemistry I	2009-2010	2006	54	74.4
Organic Chemistry II	2010-2011	2004	56	74.9

\* Fall 2012 ACS exam used 2007 (norm 56.6 percent) ECC result 62.5 percent

Introductory Chemistry has been selected to be the subject of this assessment report due to the course evaluation schedule. Three types of assessment exams were used to evaluate student performance:

1. ACS high school exam 2003.
2. A 100-question exam.
3. A 130-question exam (both created by ECC Chemistry Department instructors).

Introductory Chemistry has the largest percentage of students of the college's chemistry courses. The curriculum is offered at both the main ECC-Union campus and a satellite campus at ECC-Rolla. The student culture differ between the two sites. Most students that are taking Introductory Chemistry at the Union campus are satisfying course requirements for the nursing program, while a larger portion of students at the Rolla site are taking it with the intention of continuing at Missouri S&T University, a four-year institution.

Exam scores commonly reflect a bimodal distribution indicating that the class composition contains two groups of students, one group with significantly better background than the other. This is typical for this type of class and can pose a challenge to the instructor to engage both groups. Table 2 compares results from the two sites as well as summer semester values from 2009 to 2014.

**Table 2: 2009-2014 Exam Score Comparison Between ECC-Union and ECC-Rolla**

	<b>% Correct</b>	<b>Post-Test %</b>	<b>% Retention</b>	<b>BPAN</b>	<b>% Improvement</b>
Rolla (All Semesters)	31.1	53.4	81.7	43.3	41.7
Union (All Semesters)	32.3	55.6	69.6	38.6	41.9
Summer (All)	32.6	57.3	73.5	42.2	43.2
Summer (Union)	33.1	58.5	68.6	40.5	43.4

*\* Percent correct; all exam types averaged*

Often the post-test performance is inversely related to the retention rate, as the retention rate increases, poorer performing student remain in the class and decrease the post-test average. The biparameter assessment number (BPAN) is the retention rate multiplied by the average post-test score. Summer classes generally have more motivated students, and show higher post-test scores. The percent improvement reflects the gain of skills mastered from the pre-test given at the beginning of the semester to the final exam administered at the end of the semester.

Comparing pre-test/post-test assessment date is given in the chart below. The three assessment exams used were normalized to the ACS 2003 exams and each year averaged. The data show little change for the pre-test and a slight increase for the post-test. The overall percent improvement is near 40 percent and average retention rates are near 70 percent.

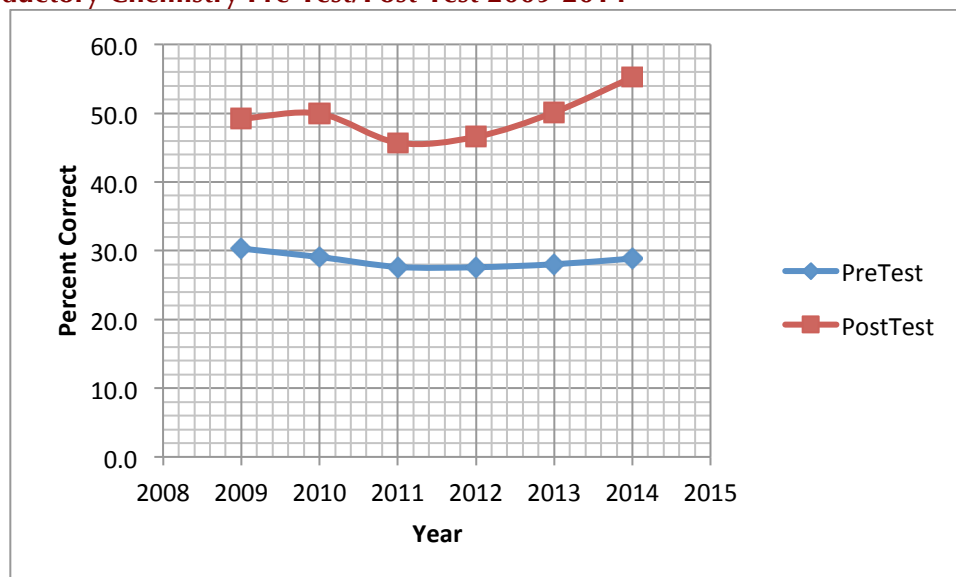
**Table 3: Introductory Chemistry Pre-Test/Post-Test 2009-2014**

Table 3 compares day and evening classes and shows a slight increase in post-test results for day classes. Changes are also slight when comparing the days that classes meet. Table 4 on the next page shows the results for classes that meet on Monday/Wednesday/Friday (M/W/F), Monday/Wednesday (M/W) or on Tuesday/Thursday (T/Th) at Union and Rolla. Table 5 compares the results for spring, fall and summer semesters.

Spring and fall semesters have similar results, but spring has a higher retention rate. This may be because students that have a semester experience at college are successful at balancing the demands of college. Summer results show a higher result due to the reason stated before that students taking summer classes have a higher motivation level.

Curriculum changes included new laboratory experiments implemented in fall 2010 in an attempt to improve data analysis, computer plotting and targeted concepts such as intermolecular forces. Students take a lab practical that involves actual data collection, data analysis, linear regression analysis and computer plotting. In fall 2013, a textbook was changed from “Introductory Chemistry” by Corwin to “Basic Chemistry” by Timberlake in fall 2013.

Initial data is encouraging but not enough has been collected to conclude that the change is real (shown in Table 6). The post-test is greater for the Timberlake textbook, but the retention rate is significantly lower, and as stated, the retention rate and post-test results are often inversely related. Initiation of online homework has been attempted beginning in spring 2014 but access issues and problems with chemical structure in the publishers’ software led to student frustrations. A request to correct these issues have been forward to the publishers’ IT group.

**Table 3: Exam Score Comparison Between Day and Evening Sections**

<b>Evening/Day Section</b>	<b>Pre-Test%</b>	<b>Post-Test%</b>	<b>% Retention</b>	<b>BPAN</b>
All Evening Sections	31.6	53.9	78.1	42
All Day Sections	32.2	55.4	71.1	39.3
Evening Section (Union)	31.7	53.8	73.2	39.3
Day Sections (Union)	32.5	56.1	68.5	38.4
Student Development	0.2	0.7	3	1.3

*\* Percent correct; all exam types averaged*

**Table 4: Exam Score Comparison Between M/W/F, M/W and T/TH Sections**

<b>Section</b>	<b>Pre-Test%</b>	<b>Post-Test%</b>	<b>% Retention</b>	<b>BPAN</b>
Monday/Wednesday (All)	31.2	52.7	74	38.7
Tuesday/Thursday (All)	32.2	55.3	71.8	39.4
Monday, Wednesday, Friday (All)	32.8	56.9	70.5	40.1
Monday/Wednesday (Union)	31.8	53.3	69.6	36.9
Tuesday/Thursday (Union)	32.2	55.5	69.3	38.2
Monday/Wednesday/Friday (Union)	32.8	56.9	70.5	40.1
Average	32.5	1.5	0.5	1.3
Student Development	0.6	1.6	1.6	1.1

*\* Percent correct; all exam types averaged*

The difficult concept of intermolecular forces was monitored by selecting appropriate questions on the final exam. The laboratory experiment “Intermolecular Forces” was added in the fall 2012. Also, the textbook was changed in fall 2013 in part to address poor performance by students on the concept of intermolecular forces.

The results compare ACS2003 exam results for question #32 and #76, which tested the students on the concept of intermolecular forces, at periods before and after the changes stated previously. The years were selected that used the identical ACS exam. The results indicate an increase in student performance. For question #32, performance increased by 30 percent, but for question #76, the increase was under 5 percent.



**Table 5: Exam Score Comparison Between Fall, Spring and Summer Sessions**

<b>Semester</b>	<b>Pre-Test %</b>	<b>Post-Test %</b>	<b>% Retention</b>	<b>BPAN</b>
Fall Semester (All Ave)	31.2	55.1	65.3	35.9
Student Development	2.9	4	10.5	5.7
Spring Semester (All Ave)				
Average	33.3	55.1	75.6	41.7
Student Development	5.8	7.4	9.4	6.2
Summer Semester (All Ave)				
Average	33.1	58.5	68.6	40.5
Student Development	4	8.3	14.4	11.2

*\* Percent correct; all exam types averaged*

**Table 6: Exam Score Comparison Between the Corwin and Timberlake Textbooks**

<b>Semester</b>	<b>Textbook Used</b>	<b>Pre-Test%</b>	<b>Post-Test%</b>	<b>% Retention</b>	<b>BPAN</b>
Spring/Summer 2013	Corwin	28	46.4	77.4	35.9
Fall 2013/ Spring 2014	Timberlake	28.3	54.7	63.4	34.4

**Table 7: Intermolecular Forces Comparison**

<b>Semester</b>	<b>Exam Type</b>	<b>Question #32 % Correct</b>	<b>Question #76 % Correct</b>
Spring 2014 Monday/Wednesday/Friday	ACS HS2003	83.3	58.3
Fall 2013 Monday/Wednesday/Friday	ACS HS2003	91.7	70.8
Fall 2013 Tuesday/Thursday	ACS HS2003	91.7	70.8
Summer 2013	ACS HS2003	80.0	60.0
	<b>Average</b>	<b>86.8</b>	<b>64.6</b>
Spring 2007	ACS HS2003	73.9	53.3
Spring 2007	ACS HS2003	63.2	52.6
Fall 2007	ACS HS2003	63.2	78.9
	<b>Average</b>	<b>66.8</b>	<b>61.6</b>

***Health Science and Biology for Allied Health (Program Review)***

Submitted by: ***Sarah Havens, MS, instructor of biology and health sciences***

## **I. General Program Information**

### **1. Mission Statements**

#### Biology Department Mission Statement

The mission of East Central College Biology Department is to instill in students the most current, accurate, and comprehensive content knowledge in the field; enhance critical thinking capacity; and impart information management skills and the skills to practice in the field of science.

#### Health Science Department Mission Statement

The mission of East Central College Health Science Department offers coursework that provides a good foundation for health studies and encourages critical thinking while promoting interdisciplinary collaboration. The primary role of the Health Science Department is to support other health-related degree programs.

### **2. Organization and Structure**

The Health Science and Biology Departments are part of the ECC Science Division. In addition to these two departments, the Science Division also consists of the Chemistry, Health Information Management, Medical Assisting, Geology, Biotechnology and Chemical Technology Departments. Division business is conducted through weekly department meetings and regular division meetings.

### **3. Staffing and Credentials: Personnel, Facilities and Equipment**

- a. The Biology Department currently has seven full-time instructors, as well as adjunct instructors. The department has divided the courses into units. Unit IIIA and IIIB include the Biology courses for Allied Health and the Health Science Departments. Adjunct instructors regularly teach some classes in Unit IIIA and IIIB. Of the full-time instructors, five teach Unit III courses and all have either their doctorates (two) or research-based master's degrees with thesis option (three).
- b. The Health Science Department currently utilizes one full-time instructor and two adjunct instructors. Full-time instructors from the Biology Department will also teach health science courses when necessary. The full-time instructor has a research-based master's degree with thesis option and teaches other courses within the Biology Department.

### **4. External Accreditation:**

Currently there are no external accreditation organizations for the biology or health science programs.

## **II. Learning Outcomes**

### **1. Program Goals**

#### **Biology for Allied Health and Health Science Program Goals**

The program goals are to provide quality, current instruction in biology for students. To aid in this effort, the program review process identifies areas that need improvement and develop action plans to resolve any deficiencies or areas of concern

### **2. Course/Curriculum Information**

Please see Appendix 1 for the courses descriptions for Nutrition, Medical Terminology, Anatomy and Physiology I &II, Introduction to Human Anatomy and Physiology, Microbiology for Allied Health and Laboratory Safety for Students courses.

### **3. Recent Changes/Updates**

#### **a. Changes and Updates in Departments**

- i. Fall 2012 – Course numbers for Introduction to Human Anatomy and Physiology, Human Anatomy and Physiology I, Human Anatomy and Physiology II and Microbiology were revised so that lectures and labs are considered a single course. This reduces confusion regarding grades and co-requisite requirements.
- ii. Fall 2012 - A full-time faculty member was hired to teach A&P I and A&P II in Union.
- iii. Fall 2013 - A full-time faculty member was hired to teach IHAP and Health Science courses in Union and Rolla.

#### **b. Changes and Updates based on Assessment/Last Program Review**

- i. The ECC Health Science Department underwent program review in fall 2011 and some changes were made based on the findings of that review. Some additional changes to ECC's biology courses for Allied Health were also made based on input from the Nursing Department's board review and research of other institutions.
- ii. Spring 2014 - Microbiology for Allied Health was added to the course schedule.
- iii. Spring 2014 - Fall 2013: Pre-requisites for Microbiology and A&P I/II were changed to a "C" or better in General Biology or two years of high school biology in the last five years with a "B" or better. The Missouri State Nursing Board suggested this change when they reviewed the nursing program.
- iv. Nutrition has had an assessment test created and utilized to collect assessment data.
- v. A new nutrition textbook was chosen for the fall 2013 semester.

### III. Students

#### 1. Biology for Allied Health

The following information was compiled by East Central College's Institutional Research Department.

#### FIVE YEAR PROGRAM REVIEW: Biology

No dual credit or articulated data are used in this study

##### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
BI1	979	980	932	585	446

Note: Student count is duplicated.

##### Enrollment: FYE

Department	2010	2011	2012	2013	2014
BI1	67.63	68.60	65.30	73.30	62.90

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

##### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	8	8	8	10	5
# of Sections	59	60	54	35	29
# Enrolled	979	980	932	585	446
Average Section Size	16.59	16.33	17.26	16.71	15.38
# of Seats Offered	1254	1320	1192	757	602
% Seats Filled	78.1%	74.2%	78.2%	77.3%	74.1%

Note: Arranged sections are excluded.

##### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	8	12	6	5	5
11-15	13	13	8	10	9
16-20	23	19	30	9	13
21-30	15	16	10	11	2
31-40					
Over 40					

Note: Arranged sections are excluded.

##### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	769	778	778	496	377
Grades of D, F	89	82	68	42	21
Withdrawal	121	120	84	45	41
% Successful	78.55%	79.39%	83.66%	85.08%	85.88%

##### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	123	118	110	118	123
Credits Adjuncts	0	8	9	19	14
% Credits Faculty	100.0%	93.7%	92.4%	86.1%	89.8%
% Credits Adjuncts	0.0%	6.3%	7.6%	13.9%	10.2%

##### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	67.63	68.60	65.30	73.30	62.90
Faculty FTE	4.10	4.20	3.97	4.57	4.57
Student/Faculty Ratio	16.50	16.33	16.45	16.04	13.76

Note: Faculty FTE = add each course section credit and divide the sum by 30.

##### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	4.10	3.93	3.67	3.93	4.10

The above table includes Introduction to Human Anatomy and Physiology, Anatomy and Physiology I, Anatomy and Physiology II and Microbiology for Allied Health. The information includes data on enrollment (headcount), course offerings, course completion and success rates, class sizes, credits taught by full-time faculty and adjuncts and department costs.

In this data, the department costs are inaccurate as they include all Biology Department classes cost rather than just the four that are under review. The enrollment numbers on the IR report appear to have decreased by 50 percent in 2013; however, this was the first year that lab and lecture courses were combined in to one course. Prior to 2013, the students in the laboratory class and the lecture class were counted separately. This is also true of the class sections.

Overall, the enrollment numbers have remained constant with a slight increase followed by a small decrease in academic year 2013-2014. However, the institution's overall enrollment has decreased for the last two years. The trend of student success in these four classes has increased from 78 percent in 2009 to 85 percent over a five-year period. This trend began in 2012 and may be due to the changes in enrollment, faculty teaching the courses or pre-requisites for some of the courses.

## 2. Department of Health Science

The following information was compiled by East Central College's Institutional Research Department.

### FIVE YEAR PROGRAM REVIEW: Health Sciences

No dual credit or articulated data are used in this study

#### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
BI1	158	576	610	572	562

Note: Student count is duplicated.

#### Enrollment: FYE

Department	2010	2011	2012	2013	2014
BI1	15.80	57.60	61.00	59.40	56.20

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

#### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	2	2	2	2	2
# of Sections	5	25	27	26	27
# Enrolled	158	576	610	572	562
Average Section Size	31.60	23.04	22.59	22.00	20.81
# of Seats Offered	163	624	677	786	687
% Seats Filled	96.9%	92.3%	90.1%	72.8%	81.8%

Note: Arranged sections are excluded.

#### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	0	2	0	2	1
11-15	0	1	2	2	2
16-20	0	2	5	1	6
21-30	1	16	20	21	18
31-40	4	4	0	0	0
Over 40					

Note: Arranged sections are excluded.

#### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	123	398	481	464	416
Grades of D, F	16	83	59	62	50
Withdrawal	19	95	70	68	96
% Successful	77.85%	69.10%	78.85%	78.11%	74.02%

#### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	3	27	39	15	30
Credits Adjuncts	12	48	42	63	51
% Credits Faculty	20.0%	36.0%	48.1%	19.2%	37.0%
% Credits Adjuncts	80.0%	64.0%	51.9%	80.8%	63.0%

#### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	15.80	57.60	61.00	59.40	56.20
Faculty FTE	0.50	2.50	2.70	2.60	2.70
Student/Faculty Ratio	31.60	23.04	22.59	22.85	20.81

Note: Faculty FTE = add each course section credit and divide the sum by 30.

#### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	0.10	0.90	1.30	0.50	1.00

Medical Terminology and Nutrition have rapidly grown in size and enrollment during the last three years. The number of course sections has grown along with it. Enrollment from 2012 to 2013 did show a 6.2 percent decline. This correlates to the institutional decrease in enrollment during the same time period. The percent of credits taught in the Health Science Department by adjunct faculty was 80.8 percent. This has led to some inconsistencies in data collection that will be addressed in the next years of assessment collection through a streamlined report and the implementation of a data compilation event each year that includes full-time and adjunct faculty.

## **IV. Advisory Committee Information**

### **1. Minutes, Meetings**

This is the first self-study.

### **2. Membership**

<b>Name</b>	<b>Role/Institution</b>
Sarah Havens	Program Review Coordinator, ECC
Fatemeh Nichols	Science Division Chair, ECC
Jean McCann	Vice President of Instruction, ECC
Robyn Walter	Nursing and Allied Health Division Chair, ECC
Kevin Dixon	Instructor, Biology, ECC
William Huber	Professor, Allied Health and Natural Science, SLCC
Stephanie Buchholz	Assistant Professor, Nursing, ECC
Lucy Crain	Adjunct Instructor, Health Science, ECC
Lynn Bergman	Instructor, Health Science Academy, RTC
Tracy Rusco	Program Review Coordinator, ECC
Dennis Pohlman	Assistant Professor, Government/History/Political Science, ECC
Dan Johnson	Instructor, Biology, ECC
Elizabeth Winters- Rozema	Instructor, Biology, ECC
Anne Mentz	Instructor, Mathematics, ECC
Amber Dunn	Instructor, Medical Assisting, ECC
Amelia Aaron	Nursing Alumnus, ECC
Sharon Newberry	Adjunct Instructor, Health Science, ECC
Diane Oldfather	Instructor, Respiratory Therapy, RTC

## V. Assessment Plan and Data

### 1. Assessment Plan

Please refer to Appendix 2 for the details of the Unit III assessment plan.

### 2. Assessment Results

#### **Medical Terminology (HS 1113)**

(The course description is in Appendix 1).

Medical Terminology is currently offered in Union as a web-hybrid and online course. It also currently is offered in Union as an eight-week online course or as a 16-week online course. In Rolla, the course is offered as a web-hybrid course only.

#### Data Source

The assessment report is for Medical Terminology class sections taught as a web-hybrid and as an online course during the fall 2013 to the spring 2014 period.

#### Type of Assessment

Assessment consists of comparing the scores made on a pre-test to those made on a post-test in all the course sections. The exam is a 50-question, multiple-choice test that includes questions to test students' knowledge in the concepts essential to the course. The exam was generated by the health science coordinator using publisher and instructor-generated questions. For online courses, the test is posted on the Moodle platform for students to take at the beginning and the end of the course. In the hybrid courses, the test is given in person at the first course meeting and then again during the final exam. It is the instructor's choice to use the post-test as part of a final exam grade or not.

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors, are being furnished.

**Table: Comparison for Fall 2013 and Spring 2014 Medical Terminology Courses Web-Hybrid/16-Week Online/Eight-Week Online**

Assessment	Fall 2013 Web-Hybrid Average (%)	Spring 2014 Web-Hybrid Average (%)	Fall 2013 16-Week Online Average (%)	Spring 2014 16-Week Online Average (%)	Fall 2013 Eight-Week Online Average (%)	Spring 2014 Eight-Week Online Average (%)
Pre-Test	45.40%	47.50%	72%	53%	65.40%	51.40%
Post-Test	75.60%	69.90%	74%	74.40%	85%	77%
Percent Change (%)	66.50%	38.20%	2.70%	33.60%	26.10%	39.90%



### Summary

Medical Terminology has been offered in a variety of course formats. During the period reviewed students were offered web-hybrid, 16-week online and eight-week online. The eight-week online offering was the result of the MO HealthWins Grant that required courses for Health Information Management be offered in accelerated forms.

Students who completed the eight-week online course showed equal or greater improvement on the assessment test as that of other course formats. However, in these eight-week offerings there withdrawal rates were higher as students sometimes struggled to keep up with the fast pace while carrying a full load of courses.

Overall, the course does well as an online or web-hybrid offering as it is a subject that requires constant repetition of words and word parts used in the medical field and students are able to work on this repetition through the use of online resources and online assessments. Through spelling and pronunciation quizzes online students are in contact with the instructor, which promotes quality interactions.

The course book was replaced for the fall 2014 semester with a new textbook and a new web-based learning system. This system should diversify online learning tools and offer greater insight to online student learning. Students will complete the same assessment tests as previously used and results will be analyzed after the 2014-2015 academic year. This will give data on the effectiveness of the new textbook and software.

### **Nutrition (HS 1103)**

(The course description is in Appendix 1).

### Data Source

The assessment report is for Nutrition class sections taught as a traditional, web-hybrid and online course during the fall 2013 to the spring 2014 period.

### Type of Assessment

Assessment consists of comparing the scores made on a pre-test to those made on a post-test in all the course sections. The exam is a 30-question, multiple-choice test with questions selected by the health science coordinator. Questions are over the objectives covered in the course.

For online courses, the test is posted on the Moodle platform for students to take at the beginning and the end of the course. In the hybrid courses, the test is given in person at the first course meeting and then again during the final exam. It is the instructor's choice to use the post-test as part of a final exam grade or not.

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors, are being furnished.

Results**Table: Comparison for Fall 2013 and Spring 2014 Nutrition Courses Web-Hybrid/16-Week Online/16-Week Face-to-Face**

<b>Assessment</b>	<b>Fall 2013 Hybrid</b>	<b>Fall 2013 Face-to-Face</b>	<b>Spring 2014 Hybrid</b>	<b>Spring 2014 Online</b>
Pre-Test	64.5%	60.7%	61.3%	53.7%
Post-Test	84.2%	70.0%	71.4%	80.2%
Percent Change (%)	30.5%	15.3%	16.5%	49.3%

Summary

Adjunct instructors taught nutrition for the assessment period. This has led to gaps in data as there are several sections that failed to take a post-test during the fall 2013 semester and some data was not turned in. During academic year 2014-2015, the health science coordinator has addressed these items with current adjuncts.

In fall 2013, a new nutrition textbook was adopted. There was a call for a new textbook during the previous assessment and from student suggestions. The nutrition assessment has also been developed since the previous program review. However, due to a change in full-time faculty, the assessment results from 2011-2012 are not available.

At this time, nutrition is being taught by two adjunct faculty members who have been with the college for over a year. This change has improved assessment because they now have experience teaching the course and are improving their delivery. In addition, the health science coordinator has begun working closely with them to improve understanding of assessment and developing new and improved teaching methods. This also has improved input on additional resources for the online and hybrid sections.

The assessment test will also include more critical thinking and common knowledge questions. The students tend to struggle with the questions that pertain to the chemistry and macromolecule structures. Therefore, these questions are being analyzed for wording and as indicators for improvement in student learning

**Introduction to Human Anatomy & Physiology (BI 1804)**

(The course description is in Appendix 1).

Introduction to Human Anatomy and Physiology (IHAP) is a lecture and lab course that is a survey course of the topics of Human Anatomy and Physiology. It is a degree requirement for health information management, medical assistant, paramedic technology, respiratory care and radiological technology students.

Data Source

The assessment report is for Introduction to Human Anatomy and Physiology class sections taught during the summer 2013 to the spring 2014 period in Rolla and in Union.

Type of Assessment

Assessment consists of comparing the scores made on a pre-test to those made on a post-test in all the course sections. The exam is a 50-question, multiple-choice test. The full-time faculty instructors generated the exam. The questions are aimed at testing students over knowledge in the course objectives. At this time, it is the instructor's choice to use the post-test as part of a final exam grade or not.

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors, are being furnished.

Results

**Table: Comparisons for Introduction to Human Anatomy and Physiology Summer 2013/Fall 2013/Spring 2014 Overall**

Assessment	Summer 2013	Fall 2013	Spring 2014
Pre-Test	39.30%	35.26%	35.42%
Post-Test	66.40%	57.67%	56.88%
Percent Change (%)	95.87%	63.53%	60.59%

Summary

Students showed the greatest improvement on questions in the areas of cell biology, anatomical position, tissues, integumentary, bone anatomy, muscle physiology, special senses, cardiovascular, urinary, respiratory and reproductive systems. Students showed the least improvement on questions in the areas of tissues, integumentary, muscle physiology, lymphatic and reproductive systems.

The full-time instructors who teach the course collaborated on teaching strategies to improve overall student learning, particularly in the subjects that have proven most difficult. A common final exam is being developed by the instructors to help with course assessment. Also, there is now a Friday open lab review session for students at both the Union and Rolla locations.

In addition, the assessment test has been reviewed for questions that reflect common knowledge and are being converted to more critical-thinking type questions. Also, the assessment test will now be given as part of the common final rather than in addition to the final, which may improve student effort. Additionally, this course is in the process of having an online laboratory developed for it. This will be the first online science lab at East Central College. This course section will be closely reviewed for effectiveness and assessed in relation to traditional sections.

**Human Anatomy & Physiology I (BI 2104)**

(The course description is in Appendix 1).

Data Source

The assessment report is for Human Anatomy and Physiology I class sections taught as a 16-week and an eight-week course during the fall 2012 to the spring 2014 period.

Type of Assessment

Assessment consists of comparing the scores made on a pre-test to those made on a post-test in all the course sections. The exam is a 50-questions, multiple-choice test. The exam was generated by the full-time faculty teaching Anatomy and Physiology I. It is the instructor's choice to use the post-test as part of a final exam or not.

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors are being furnished.

Results**Table: Comparisons for Human Anatomy and Physiology I Spring 2012/Fall 2013/Spring 2014 Overall**

<b>Assessment</b>	<b>16-Week Fall 2012</b>	<b>16-Week Spring 2013</b>	<b>16-Week Fall 2013</b>	<b>Eight- Week Fall 2013</b>	<b>16-Week Spring 2014</b>	<b>Eight- Week Spring 2014</b>
Pre-Test Average (%)	36.45%	35.87%	30.74%	45.60%	29.11%	39.80%
Post-Test Average (%)	65.84%	64.72%	69.26%	75.40%	65.33%	70.42%
Percent Change (%)	80.63%	80.43%	125.31%	65.35%	124.42%	76.93%

Summary

The average percent improvement between pre and post-test scores in the 16-week A&PI course for the 2013-2014 academic year was 124.86 percent. The average percent improvement between pre and post-test scores in the accelerated eight-week A&PI course for the 2013-2014 academic year was 71.14 percent. The accelerated courses are new to the program and show similar improvement scores on the post-test as the 16-week courses. The average percent improvement between pre and post-test scores in the 16-week A&PI course for the 2012-2013 academic year was 25.09 percent.

Future Directions for A&PI Assessment

A detailed analysis by subject area will continue to be used to inform the improvement of the current pre and post assessment tests. In addition, the analysis will help formulate/design teaching strategies and identify areas of emphasis for instructors. A new textbook and lab manual were adopted for the 2014-2015 academic year that includes online technology and student study tools. These tools help students outside the classroom in topic areas that consistently receive lower scores. Changes will continue to be made to the assessment to improve the depth of knowledge being tested, the accuracy of the questions and statistical validity.

**Human Anatomy & Physiology II (BI 2115)**

(The course description is in Appendix 1).

Data Source

The assessment report is for Human Anatomy and Physiology II class sections taught as a 16-week and an eight-week course during the fall 2012 to spring 2014 period. Also included are the average scores of students during spring and summer 2013 and spring 2014 on the HAPS National Exam.

Type of Assessment

Assessment consists of comparing the scores made on a pre-test to those made on a post-test in all the course sections. The pre and post-test assessments were generated by the full-time instructors, and contain 50 multiple-choice questions. It is the instructor's choice to use the post-test as part of a final exam.

The Human Anatomy and Physiology Society standardized national exam is also given to students during the spring semester. This assessment is 100 questions covering concepts from the Human Anatomy And Physiology I and II courses and allows assessment of ECC students on a national scale.

Comparison of overall scores made on pre-test and post-test and assessment of data for multiple sections of the course taught by multiple instructors are furnished. HAPS standardized national exam results are also furnished.

**Table: Comparisons for Human Anatomy and Physiology II Spring 2012/Fall 2013/Spring 2014 Overall**

<b>Assessment</b>	<b>16-Week Fall 2012</b>	<b>16-Week Spring 2013</b>	<b>Eight- Week Fall 2013</b>
Pre-Test Average (%)	42.03%	28.04%	46.30%
Post-Test Average (%)	67.12%	56.16%	78.50%
Percent Change (%)	59.70%	100.20%	69.55%

**Table: Comparisons for Human Anatomy and Physiology Society Nation Exam Scores**

<b>Course/Timeframe</b>	<b>High Score</b>	<b>Low Score</b>	<b>Average</b>	<b>National Average</b>
Spring 2013 - Rolla Only (Paper Exam)	66.00%	38.00%	53.60%	56.00%
Summer 2013 – Union Only (Paper Exam)	69.00%	38.00%	52.30%	56.00%
Spring 2014 – Rolla (Computerized Exam)	77.00%	34.00%	49.30%	43.30%
Spring 2014 – Union (Computerized Exam)	64.00%	28.00%	42.21%	43.30%

### Summary

#### *Summary for A&P II Assessment*

The average percent improvement between pre and post-test scores in the 16-week A&P II course for the 2012-2013 academic year was 75.96 percent. The average percent improvement between pre and post-test scores in the eight-week A&P II course for the 2012-2013 academic year was 69.55 percent. The eight-week course was offered for the first time in the fall 2013 semester and only at the Rolla location.

The percent improvement was slightly lower in the eight-week course than in the 16-week course. The average score for the HAPS exam was 48.37 percent, which was near the national average of 49.65 percent. Currently, it is evident that our curriculum is aligned with the standards of the Human Anatomy and Physiology Society based on our test results.

#### *Future Direction in A&P II Assessment*

Data will continue to be collected on the eight-week accelerated courses. A detailed analysis by subject area will continue to be used to inform the improvement of the current pre and post-test used for assessment. In addition, the analysis will help formulate/design teaching strategies and identify areas of emphasis for instructors. A new textbook and lab manual were adopted for the 2014-2015 academic year that includes online technology including study tools for the students. These tools will be utilized to help students outside the classroom in topic areas that consistently receive lower scores. Changes will continue being made to the assessment to improve the depth of knowledge being tested, the accuracy of the questions as well as the statistical validity.

The common assessment will be modified for the fall 2014 semester. Questions will be rewritten to more accurately examine depth of knowledge. Data will continue to be collected from the Human Anatomy and Physiology Society (HAPS) standardized national exam and analyzed.

### Microbiology for Allied Health (BI 1314)

(The course description is in Appendix 1).

#### Assessment

Microbiology for Allied Health was offered for the first time during the spring 2014 semester. With no national standard exam available for assessment, instructors for the course developed an exam to be used as a pre-test/post-test comparative tool.

To date, this exam has been administered to five sections of Microbiology: two were sections that met during the spring 2014 semester (one afternoon section and one evening section), and a third was a morning session during the summer 2014 eight-week term in Union. The fourth and fifth sections were administered at the Rolla site: one morning section during the spring 2014 semester and an additional morning session during the summer 2014 term.

#### Results

**Table: Comparisons for Microbiology Spring/Summer 2014 – 3 Sections Overall**

Assessment	Spring 2014 Day (Combined)	Spring 2014 Night (One Section)	Summer 2014 (Combined)
Pre-Test (%)	17.8/40 Possible =44.5%	17.2/40 Possible =43.4%	18.6/40 Possible =46.5%
Post-Test (%)	29.4/40 Possible =73.5%	27.6/40 Possible =69.0%	32.5/40 Possible =81.3%
Percent Change (%)	65.1% Increase	60.5% Increase	69.9% Increase

#### Summary

As shown above, the summer 2014 groups had a significantly higher score. The difference is not completely surprising based on past experiences. Summer-term students tend to do well in this course. Most have no other classes in their schedule competing for their time academically, and overall the summer group followed previous trend as they excelled in their overall work.

As stated in the course description, BI 1314 – Microbiology for Allied Health has pre-requisites of “Minimum of "C" in BI 1305 or two years of high school biology, with a lab, and a score of four or above on Advanced Placement exams.” This represents a significant change in pre-requisites and preparation for the course. As a result, instructors reviewed the curriculum and revised lecture and lab content to more closely match what would be expected for a class tailored to allied health majors.

For several years prior to the spring 2014 semester, this course was offered as BI 2404 – Microbiology Lecture/Lab. BI 2404 met requirements for a general microbiology course that could be used by either biology majors as an elective credit for transfer or allied health/nursing majors to meet the microbiology program requirement. BI 2404 had a pre-requisite of BI 1325 – Principles of Biology I (which had a chemistry pre-requisite), so students were often in at least their third or fourth semester of coursework.

With the concurrent changes in the course content and pre-requisites there is still a fair cohort of students who have exceeded the current minimum pre-requisites having taken Principles of Biology I and a previous college-level chemistry course. The department expects it will continue to see students who have taken Principles and Chemistry for at least another one to two years, so a fair comparison of sections from previous years cannot be made.

Before the start of the fall 2014 semester, the primary instructors for the course met to revise the exam. Wording on several questions was “cleaned up,” and a few questions that better fit the previous version of the course were omitted. Data from the revised exam will be included in the next assessment cycle.



## **VI. SWOT Analysis for Health Science and Biology Courses for Allied Health**

### **1. Strengths:**

- a. All full-time faculty members hold research-based master's degrees (three) or doctorates (two) in different fields of biology, which allows the department to use the right instructor with the right course.
- b. The East Central College administration is very supportive of offering courses regularly, on a predictable schedule. This helps students to meet their educational goals at East Central College and realize successful transfer to four-year schools in a timely manner.
- c. There is a full-time lab manager in Union.
- d. Current adjunct faculty members are reliable.

### **2. Weaknesses:**

- a. Rolla has limited facilities. While laboratory space has increased recently, limitations still exist.
- b. There is no full-time lab manager in Rolla.
- c. There is difficulty finding and keeping qualified adjunct faculty to teach courses.
- d. There is a lack of contribution of adjunct faculty to development of courses and the department.
- e. There is a lack of Anatomy and Physiology tutors/student workers.

### **3. Opportunities:**

- a. Monitor assessment results to improve student performance for difficult concepts, and have in-depth discussion of rigor of courses taught, concepts covered and assessment.
- b. Collect data on number of students participating in open lab Fridays.
- c. Utilize newly formed HOSA chapter as a retention tool.
- d. Develop common final for Introduction Anatomy & Physiology to use as a benchmark for student learning.
- e. Increased training opportunities for faculty to develop assessment skills and tools.
- f. Develop an online Introduction to Anatomy & Physiology lab.
- g. Increase recruitment efforts and community involvement.
- h. Develop online science lab class guidelines.

### **4. Threats:**

- a. Find qualified adjunct faculty.
- b. Enrollment is down college-wide and subsequently in biology and health science courses.
- c. The presence of Missouri S&T, St. Louis Community College, Webster University, and University of Missouri–St. Louis in close proximity to East Central College.
- d. There has been a proliferation of online offerings of lab based science courses.
- e. There is a higher level of pay for adjuncts at other local institutions.
- f. Ozark Technical College and Drury have no pre-requisites to A&P I.

## **Appendix 1**

### **Course Descriptions**

HS 1003 3.0

#### **Nutrition**

A study of the essential nutrients and their value in various food groups, their functions in the body, and how to determine the food needs of the individual.

Pre-requisite: Appropriate placement score to enter EN 1223 or EN 1233

HS 1113 3.0

#### **Medical Terminology**

An introduction to medical terminology focusing on the building and understanding of anatomical and pathological terms through identification and interpretation of roots, prefixes and suffixes. Students will pronounce, spell, define and interpret text on basic terms used in reporting on body systems, medical specialties, disease and procedural activities. The course will address basic medical terminology and abbreviations.

Pre-requisites: Appropriate placement score to enter EN 1223 or EN 1233

BI 1314 4.0

#### **Microbiology for Allied Health**

An introduction to microorganisms and their importance in disease. Course topics include microbial morphology, cell anatomy and physiology, energy transformation reactions, genetics, and classification. Diseases of specific body systems and the human innate and adaptive immune response will be discussed. Laboratory topics will support the lecture, with the addition of culturing and staining techniques, disinfection, microbial identification, and diagnostic microbiology tests commonly performed in allied health fields. Three hours of lecture and minimum of three hours laboratory per week.

Pre-requisite: Minimum of "C" in BI 1305 or a minimum average grade of "B" in two years of lab-based biology courses. Either of the previous options must have been within the last 5 years. High school biology can be a combination of high school Biology I & II or high school Biology I and Anatomy and Physiology. Both high school courses in a given option must be yearlong courses with labs. If a student does not meet these requirements they must take BI\*1305. Pre/Co-requisite: SC 1000

BI 1804 4.0

#### **Introduction to Human Anatomy & Physiology Lecture & Lab**

A survey of the structure and function of the human body. The micro and macroscopic structure and the function of each system will be reviewed. The course is intended for students enrolled in an allied health program. The integument, skeletal, muscular, nervous, endocrine, circulatory, digestive, respiratory, urinary and reproductive system will be studied. The laboratory session will support the lecture activity. Two hours of lecture and minimum of four hours lab per week.

Pre-requisite: Appropriate placement score or coursework to enter EN 1223 or EN 1233. Pre/Co-requisite: SC 1000

BI 2104

4.0

**Human Anatomy & Physiology I Lecture & Lab**

This course is part of a two-semester sequence of courses where gross micro- and macro-scopic anatomy and the function of the respective structures are studied. Major topics covered include biological chemistry, cell biology, histology, integumentary system, skeletal system, muscular system, and nervous system. Laboratory work includes dissection, microscopy, models, and experimental demonstration of concepts covered in class. Dissection of preserved animal specimens is required. This course is primarily for students majoring in allied health fields. Two hours of lecture with a minimum of four hours of laboratory per week.

Pre-requisites: (1) Minimum grade "C" in BI 1325 or two years of high school biology, with a lab, and a score of four or above on Advanced Biology exams, (2) CH 1105; Pre/Co-requisite: SC 1000

BI 2115

5.0

**Human Anatomy & Physiology II Lecture & Lab**

This is part two of a two-semester sequence of courses where gross micro- and macro-scopic anatomy and the function of the respective structures are studied. Major topics covered include special senses, cardiovascular system, lymphatic system, respiratory system, urinary system, digestive system and reproductive system. Laboratory work includes dissection, microscopy, models, and experimental demonstration of concepts covered in class. Dissection of preserved animal specimens is required. This course is designed primarily for students in allied health fields. Two and one-half hours of lecture and minimum of four hours of laboratory per week.

Pre-requisite: BI 2104, minimum grade C Pre/Co-requisite: SC 1000 and CH 1105

## **Appendix 2**

### ***Unit III: Consists of Health-Related Courses from Biology (III A) and Health Science (III B) Departments – 2014, 2019 and 2024***

#### Report Cycle and Review Cycle

This unit report will be submitted every five years alternating with the other units in the BS and ES departments.

#### Unit III A: Health-Related Courses in the Biology Department (BI)

##### III. Program objectives:

- a. Describe and apply basic course specific concepts.
- b. Identify and use the concepts, principles, and theories that constitute the core sub-disciplines of the biological sciences.
- c. Apply new understanding of biology in novel ways that are useful to humans or that solve problems faced by humans.
- d. Students will apply the concept of chemistry to the study of life.
- e. Gather and analyze appropriate numerical information including creating and interpretation of graphs and diagrams.
- f. Demonstrate appropriate technical skills related to biology.
- g. Apply the scientific method of creating and testing hypotheses.

Target Courses	Objectives met	Assessment Tool	Assessment cycle
<b>Microbiology for Allied Health</b> (BI 1314)	Content assessment	Semester exams, laboratory exams & departmental Pre-test and post-test	Semester of course offering
	II.a.	CAAP test	To be determined by the college.
	III.a & III.b	Semester exams, laboratory exams & laboratory reports, & departmental Pre-test and post-test	Each objective will be assessed individually on a cyclic basis
	III.c – III.f	Appropriate assessment tool for the objective chosen will be used - Under development	
<b>Human Anatomy and Physiology I</b> (BI 2104)	Content assessment	Semester exams, laboratory exams & departmental Pre-test and post-test	Semester of course offering
	II.a.	CAAP test	To be determined by the college.
	III.a, III c. & III d.	Semester exams, laboratory exams & departmental Pre-test and post-test	Each objective will be assessed individually on a cyclic basis
<b>Human Anatomy and Physiology II</b> (BI 2115)	Content assessment	a) Semester exams, laboratory exams & departmental Pre-test and post-test b) Human Anatomy and Physiology Society(HAPS) Standardized Exam	a) Semester of course offering b) HAPS test will administered once every two years
	II.a.	CAAP test	To be determined by the college.
	III.a., III c. & III d.	Semester exams, laboratory exams & departmental Pre-test and post-test	Each objective will be assessed individually on a cyclic basis
	Content assessment	Semester exams, laboratory exams & laboratory manual, & departmental Pre-test and post-test	Semester of course offering
	III.a, III.c, III.e and III.g.	Appropriate assessment tool for the objective chosen will be used - Under development	Each objective will be assessed individually on a cyclic basis

**Department-Division : Health Science department – Science Division**  
**East Central College**  
**Program Assessment Planning Document Semester & Academic year: Updated Spring 2013**

---

**East Central College learning objectives (general education objectives and CLOs) & program objectives that this assessment will support.**

- I. General Education Objectives (Do not apply)
- II. Common Learning Objectives (Do not apply)
- III. Program objectives (Unit specific)

**Report and Review Cycles:** Reports and program reviews for each Unit will be performed in 5 year cycles. Review years for each Unit are specified below

**Unit III:** Consists of **Health-Related Courses from Biology (III A) and Health Science (III B) Departments – 2014, 2019 and 2024**

**Unit III B: Health-Related Courses in the Health Science Department (HS)**

**III. Program objectives:**

- a. *Describe and apply basic course specific concepts*
- b. *Apply the scientific method of creating and testing hypotheses.*
- c. *Apply new understanding of biology in novel ways that are useful to humans or that solve problems faced by humans*
- d. *Gather and analyze numerical information appropriate including creating and interpretation of graphs and diagrams.*

<b>Target Courses</b>	<b>Objectives met</b>	<b>Assessment Tool</b>	<b>Assessment cycle</b>
<b>Nutrition (HS1003)</b>	Content assessment	Semester exams, diet analysis project & departmental pre-test and post-test	Semester of course offering
	III.a. - III.d.	Appropriate assessment tool for the objective chosen will be used- Under development	Each objective will be assessed individually on a cyclic basis
<b>Medical terminology (HS1113)</b>	Content assessment	Semester exams, case studies & departmental pre-test and post-test	Semester of course offering
	III.a.	Appropriate assessment tool for the objective chosen will be used- Under development	Each objective will be assessed individually on a cyclic basis

## SECTION 5: PROGRAM REVIEW DATA RESULTS

The program review data in this section is organized first by division and then by program.

- **Business, Education, Social Science and Technology**
  - Accounting
  - Business
  - Business, Management and Technology
  - Business Technology
  - Education
  - History/Political Science/Geography
  - HVAC/R (Air Conditioning)
  - Sociology
- **English, Foreign Language & Philosophy**
  - English
  - Spanish
- **Fine & Performing Arts**
  - Fine Art
  - Graphic Design
  - Music
  - Theatre and Communications
- **Mathematics and Physical Science**
  - Industrial Engineering Technology
  - Mathematics
  - Physics and Transfer Engineering
  - Precision Machining Technology
- **Nursing and Allied Health**
  - Fire Technology
  - Nursing
- **Science**
  - Biology
  - Chemistry

**Business, Education, Social Science and Technology Division****Accounting****FIVE YEAR PROGRAM REVIEW: ACCOUNTING**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
AC	538	565	448	546	432

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	10	10	10	10	11
# of Sections	33	34	29	33	29
# Enrolled	538	565	448	546	432
Average Section Size	16.30	16.62	15.45	16.55	14.90
# of Seats Offered	985	1056	859	1017	681
% Seats Filled	54.6%	53.5%	52.2%	53.7%	63.4%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	468	530	427	471	404
Grades of D, F	53	38	31	43	29
Withdrawal	51	63	45	60	29
% Successful	81.82%	83.99%	84.89%	82.06%	87.45%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	43.20	48.50	38.90	43.60	35.80
Faculty FTE	2.37	2.47	2.10	2.37	2.17
Student/Faculty Ratio	18.23	19.64	18.52	18.40	16.50

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10120 Accounting	150402	166805	158568	122383	96171
Cost per Student FYE	3481.53	3439.28	4076.30	2806.95	2686.34

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
AC	43.20	48.50	38.90	43.60	35.80

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	2	8	6	7	7
11-15	12	6	8	10	12
16-20	12	9	10	8	3
21-30	7	11	5	7	7
31-40	0	0	0	1	0
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	71	74	62	67	42
Credits Adjuncts	0	0	1	4	23
% Credits Faculty	100.0%	100.0%	98.4%	94.4%	64.6%
% Credits Adjuncts	0.0%	0.0%	1.6%	5.6%	35.4%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.37	2.47	2.07	2.23	1.40



**Business****FIVE YEAR PROGRAM REVIEW: BUSINESS**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
BU	684	695	573	548	620

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	14	14	14	13	12
# of Sections	36	35	32	28	30
# Enrolled	684	695	573	548	620
Average Section Size	19.00	19.86	17.91	19.57	20.67
# of Seats Offered	1006	946	893	783	857
% Seats Filled	68.0%	73.5%	64.2%	70.0%	72.3%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	550	557	466	450	541
Grades of D, F	68	75	64	61	35
Withdrawal	78	65	47	38	55
% Successful	79.02%	79.91%	80.76%	81.97%	85.74%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	69.60	69.70	57.80	55.00	63.10
Faculty FTE	3.60	3.50	3.20	2.80	3.00
Student/Faculty Ratio	19.33	19.91	18.06	19.64	21.03

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10120 Business	104047	105056	119078	140040	99904
Cost per Student FYE	1494.93	1507.26	2060.17	2546.18	1583.26

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
BU	69.60	69.70	57.80	55.00	63.10

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	9	3	5	2	3
11-15	2	8	8	6	4
16-20	7	7	7	5	5
21-30	17	14	8	15	17
31-40	1	3	4	0	1
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	60	60	60	51	57
Credits Adjuncts	48	45	36	33	33
% Credits Faculty	55.6%	57.1%	62.5%	60.7%	63.3%
% Credits Adjuncts	44.4%	42.9%	37.5%	39.3%	36.7%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.00	2.00	2.00	1.70	1.90

**Business, Management and Technology****FIVE YEAR PROGRAM REVIEW: Business Management & Technology**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
BMT	0	12	20	37	16

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	0	1	2	2	1
# of Sections	0	1	3	3	2
# Enrolled	0	12	20	37	16
Average Section Size	#DIV/0!	12.00	6.67	12.33	8.00
# of Seats Offered	0	36	58	60	40
% Seats Filled	#DIV/0!	33.3%	34.5%	61.7%	40.0%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	0	8	17	27	12
Grades of D, F	0	4	1	7	1
Withdrawal	0	0	2	3	3
% Successful	#DIV/0!	66.67%	85.00%	72.97%	75.00%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	0.00	1.20	2.00	3.70	1.60
Faculty FTE	0.00	0.10	0.30	0.30	0.20
Student/Faculty Ratio	#DIV/0!	12.00	6.67	12.33	8.00

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10120 Business Managemen	0	0	0	59272	46223
Cost per Student FYE	#DIV/0!	0.00	0.00	16019.46	28889.37

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
BMT	0.00	1.20	2.00	3.70	1.60

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	0	0	3	2	2
11-15	0	1	0	0	0
16-20	0	0	0	1	0
21-30					
31-40					
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	0	3	9	6	6
Credits Adjuncts	0	0	0	3	0
% Credits Faculty	#DIV/0!	100.0%	100.0%	66.7%	100.0%
% Credits Adjuncts	#DIV/0!	0.0%	0.0%	33.3%	0.0%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	0.00	0.10	0.30	0.20	0.20

**Business Technology****FIVE YEAR PROGRAM REVIEW: BUSINESS TECHNOLOGY**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
BT	605	552	304	128	38

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	18	16	15	10	3
# of Sections	41	34	22	11	3
# Enrolled	605	552	304	128	38
Average Section Size	14.76	16.24	13.82	11.64	12.67
# of Seats Offered	853	722	492	255	60
% Seats Filled	70.9%	76.5%	61.8%	50.2%	63.3%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	568	545	297	129	34
Grades of D, F	49	37	32	17	5
Withdrawal	27	47	23	6	1
% Successful	88.20%	86.65%	84.38%	84.87%	85.00%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	63.70	61.50	34.53	13.67	4.00
Faculty FTE	4.03	3.33	2.13	1.03	0.30
Student/Faculty Ratio	15.81	18.47	16.21	13.27	13.33

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10120 Business Technology	161337	164365	143119	68389	3796
Cost per Student FYE	2532.76	2672.60	4144.77	5002.85	949.00

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
BT	63.70	61.50	34.53	13.67	4.00

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	10	9	6	6	1
11-15	11	2	8	3	0
16-20	14	8	5	1	2
21-30	6	15	3	1	0
31-40					
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	70	49	42	21	6
Credits Adjuncts	51	51	22	10	3
% Credits Faculty	57.9%	49.0%	65.6%	67.7%	66.7%
% Credits Adjuncts	42.1%	51.0%	34.4%	32.3%	33.3%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.33	1.63	1.40	0.70	0.20

## Education

### FIVE YEAR PROGRAM REVIEW: EDUCATION

No dual credit or articulated data are used in this study

#### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
ED	734	764	660	520	340

Note: Student count is duplicated.

#### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	20	20	17	18	15
# of Sections	53	54	41	40	32
# Enrolled	734	764	660	520	340
Average Section Size	13.85	14.15	16.10	13.00	10.63
# of Seats Offered	1172	1212	948	904	731
% Seats Filled	62.6%	63.0%	69.6%	57.5%	46.5%

Note: Arranged sections are excluded; cross listed sections counted as one.

#### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	581	641	563	438	267
Grades of D, F	81	95	61	51	44
Withdrawal	54	44	41	30	30
% Successful	81.15%	82.18%	84.66%	84.39%	78.30%

#### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	65.90	68.07	58.83	46.90	30.47
Faculty FTE	4.50	4.33	3.43	3.40	2.67
Student/Faculty Ratio	14.64	15.72	17.15	13.79	11.41

Note: Faculty FTE = add each course section credit and divide the sum by 30.

#### Department Costs

Cost Center	2010	2011	2012	2013	2014
10111 Education	273786	290969	281450	282702	228649
Cost per Student FYE	4154.57	4274.56	4784.12	6027.76	7504.07

#### Enrollment: FYE

Department	2010	2011	2012	2013	2014
ED	65.90	68.07	58.83	46.90	30.47

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

#### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	17	19	10	15	16
11-15	15	12	12	10	7
16-20	11	7	7	11	6
21-30	9	15	12	4	3
31-40	1	1	0	0	0
Over 40					

Note: Arranged sections are excluded.

#### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	83	70	64	65	33
Credits Adjuncts	52	60	39	37	47
% Credits Faculty	61.5%	53.8%	62.1%	63.7%	41.3%
% Credits Adjuncts	38.5%	46.2%	37.9%	36.3%	58.8%

#### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.77	2.33	2.13	2.17	1.10

**History/Political Science/Geography****FIVE YEAR PROGRAM REVIEW: History/Political Science/Geography**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
HI PS GE	1402	1409	1215	1105	1149

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	6	6	6	7	8
# of Sections	59	57	56	53	52
# Enrolled	1402	1409	1215	1105	1149
Average Section Size	23.76	24.72	21.70	20.85	22.10
# of Seats Offered	1633	1600	1571	1470	1443
% Seats Filled	85.9%	88.1%	77.3%	75.2%	79.6%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	979	995	859	806	850
Grades of D, F	226	226	204	192	132
Withdrawal	184	162	117	78	133
% Successful	70.48%	71.95%	72.80%	74.91%	76.23%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	139.13	139.20	119.10	108.43	112.37
Faculty FTE	5.70	5.50	5.40	5.10	5.00
Student/Faculty Ratio	24.41	25.31	22.06	21.26	22.47

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10114 Hist. & Geog. & PS	238796	249397	308387	305809	280169
Cost per Student FYE	1716.35	1791.65	2589.31	2820.34	2493.27

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
HI PS GE	139.13	139.20	119.10	108.43	112.37

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	4	5	6	5	0
11-15	3	3	7	9	8
16-20	9	3	6	9	11
21-30	36	39	36	28	32
31-40	7	7	1	2	1
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	116	93	102	102	105
Credits Adjuncts	55	72	60	51	45
% Credits Faculty	67.8%	56.4%	63.0%	66.7%	70.0%
% Credits Adjuncts	32.2%	43.6%	37.0%	33.3%	30.0%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	3.87	3.10	3.40	3.40	3.50

**HVAC/R (Air Conditioning)****FIVE YEAR PROGRAM REVIEW: HVAC**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
AI	412	481	337	358	267

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	25	29	23	28	23
# of Sections	30	32	30	28	29
# Enrolled	412	481	337	358	267
Average Section Size	13.73	15.03	11.23	12.79	9.21
# of Seats Offered	522	624	530	518	483
% Seats Filled	78.9%	77.1%	63.6%	69.1%	55.3%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	353	432	273	312	223
Grades of D, F	28	26	36	22	18
Withdrawal	9	12	14	15	5
% Successful	90.51%	91.91%	84.52%	89.40%	90.65%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	30.92	36.75	24.42	25.72	19.42
Faculty FTE	2.20	2.55	2.27	2.15	2.17
Student/Faculty Ratio	14.05	14.41	10.76	11.96	8.95

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10121 HVAC	118733	116393	110042	109860	101573
Cost per Student FYE	3840.01	3167.16	4506.22	4271.38	5230.33

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
AI	30.92	36.75	24.42	25.72	19.42

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	7	5	10	11	21
11-15	8	9	13	7	7
16-20	14	17	7	10	0
21-30	0	1	0	0	1
31-40	1	0	0	0	0
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	42	43.5	42	39	43.5
Credits Adjuncts	24	33	26	25.5	21.5
% Credits Faculty	63.6%	56.9%	61.8%	60.5%	66.9%
% Credits Adjuncts	36.4%	43.1%	38.2%	39.5%	33.1%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	1.40	1.45	1.40	1.30	1.45

## Sociology

## FIVE YEAR PROGRAM REVIEW: SOCIOLOGY

No dual credit or articulated data are used in this study

## Enrollment: Headcount

Department	2010	2011	2012	2013	2014
SO	787	838	678	786	726

Note: Student count is duplicated.

## Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	5	5	5	5	6
# of Sections	30	31	27	30	29
# Enrolled	787	838	678	786	726
Average Section Size	26.23	27.03	25.11	26.20	25.03
# of Seats Offered	826	890	737	819	775
% Seats Filled	95.3%	94.2%	92.0%	96.0%	93.7%

Note: Arranged sections are excluded; cross listed sections counted as one.

## Course Completion &amp; Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	592	630	563	624	600
Grades of D, F	71	72	47	83	32
Withdrawal	92	90	37	53	70
% Successful	78.41%	79.55%	87.02%	82.11%	85.47%

## Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	79.50	84.30	67.93	79.17	75.73
Faculty FTE	3.00	3.10	2.70	3.00	2.87
Student/Faculty Ratio	26.50	27.19	25.16	26.39	26.39

Note: Faculty FTE = add each course section credit and divide the sum by 30.

## Department Costs

Cost Center	2010	2011	2012	2013	2014
10114 Sociology	126755	142055	166890	167276	159733
Cost per Student FYE	1594.40	1685.11	2456.79	2112.87	2109.24

## Enrollment: FYE

Department	2010	2011	2012	2013	2014
SO	79.50	84.30	67.93	79.17	75.73

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

## Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	1	0	1	0	1
11-15	2	2	3	2	2
16-20	1	5	4	4	5
21-30	17	13	8	16	13
31-40	7	10	10	8	8
Over 40	2	1	1	0	0

Note: Arranged sections are excluded.

## Credits Taught by Faculty &amp; Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	48	48	45	45	50
Credits Adjuncts	42	45	36	45	36
% Credits Faculty	53.3%	51.6%	55.6%	50.0%	58.1%
% Credits Adjuncts	46.7%	48.4%	44.4%	50.0%	41.9%

## Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	1.60	1.60	1.50	1.50	1.67

**Psychology****FIVE YEAR PROGRAM REVIEW: PSYCHOLOGY**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
PY	1217	1388	1256	1280	1321

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	5	5	7	8	7
# of Sections	41	48	46	49	53
# Enrolled	1217	1388	1256	1280	1321
Average Section Size	29.68	28.92	27.30	26.12	24.92
# of Seats Offered	1222	1516	1331	1386	1441
% Seats Filled	99.6%	91.6%	94.4%	92.4%	91.7%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	945	1020	956	976	993
Grades of D, F	146	188	148	196	130
Withdrawal	72	99	87	49	122
% Successful	81.26%	78.04%	80.27%	79.93%	79.76%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	123.00	138.80	125.60	128.20	132.60
Faculty FTE	4.10	4.80	4.60	4.90	5.30
Student/Faculty Ratio	30.00	28.92	27.30	26.16	25.02

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10114 Psychology	177713	194302	158932	163469	197516
Cost per Student FYE	1444.82	1399.87	1265.38	1275.11	1489.56

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
PY	123.00	138.80	125.60	128.20	132.60

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	0	0	0	1	2
11-15	0	4	3	4	2
16-20	3	4	2	0	2
21-30	18	21	31	33	42
31-40	20	13	8	11	4
Over 40	0	6	2	0	1

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	78	60	78	78	90
Credits Adjuncts	45	84	60	69	69
% Credits Faculty	63.4%	41.7%	56.5%	53.1%	56.6%
% Credits Adjuncts	36.6%	58.3%	43.5%	46.9%	43.4%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.60	2.00	2.60	2.60	3.00



**English, Foreign Language & Philosophy Division****English****FIVE YEAR PROGRAM REVIEW: English**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
EN	4177	4215	3683	3477	3327

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	30	30	32	29	27
# of Sections	237	237	212	194	183
# Enrolled	4177	4215	3683	3477	3327
Average Section Size	17.62	17.78	17.37	17.92	18.18
# of Seats Offered	5179	5010	4475	4187	3939
% Seats Filled	80.7%	84.1%	82.3%	83.0%	84.5%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	3047	2920	2598	2452	2328
Grades of D, F	710	834	691	606	421
Withdrawal	465	478	384	395	507
% Successful	72.17%	69.00%	70.73%	71.01%	71.50%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	420.53	422.83	368.43	347.13	333.07
Faculty FTE	23.50	23.63	22.00	20.30	19.63
Student/Faculty Ratio	17.89	17.89	16.75	17.10	16.97

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10112 English	858927	857395	825191	832450	820007
Cost per Student FYE	2042.49	2027.75	2239.75	2398.09	2461.97

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
EN	420.53	422.83	368.43	347.13	333.07

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	43	35	32	16	17
11-15	29	30	34	44	35
16-20	55	76	66	63	73
21-30	109	96	80	70	58
31-40	1	0	0	1	0
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	348	367	335	276	275
Credits Adjuncts	357	342	325	333	314
% Credits Faculty	49.4%	51.8%	50.8%	45.3%	46.7%
% Credits Adjuncts	50.6%	48.2%	49.2%	54.7%	53.3%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	11.60	12.23	11.17	9.20	9.17

## Spanish

### FIVE YEAR PROGRAM REVIEW: SPANISH

No dual credit or articulated data are used in this study

#### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
SP	190	163	203	166	150

Note: Student count is duplicated.

#### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	4	3	3	3	3
# of Sections	13	11	11	10	10
# Enrolled	190	163	203	166	150
Average Section Size	14.62	14.82	18.45	16.60	15.00
# of Seats Offered	323	270	266	238	200
% Seats Filled	58.8%	60.4%	76.3%	69.7%	75.0%

Note: Arranged sections are excluded; cross listed sections counted as one.

#### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	140	117	144	122	100
Grades of D, F	18	21	37	17	22
Withdrawal	30	25	22	27	28
% Successful	74.47%	71.78%	70.94%	73.49%	66.67%

#### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	25.33	21.73	27.07	22.13	20.00
Faculty FTE	1.73	1.47	1.47	1.33	1.33
Student/Faculty Ratio	14.64	14.78	18.41	16.64	15.04

Note: Faculty FTE = add each course section credit and divide the sum by 30.

#### Enrollment: FYE

Department	2010	2011	2012	2013	2014
SP	25.33	21.73	27.07	22.13	20.00

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

#### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	4	3	2	2	3
11-15	4	2	0	1	1
16-20	3	5	4	4	5
21-30	2	1	5	3	1
31-40					
Over 40					

Note: Arranged sections are excluded.

#### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	32	36	36	32	40
Credits Adjuncts	20	8	8	8	0
% Credits Faculty	61.5%	81.8%	81.8%	80.0%	100.0%
% Credits Adjuncts	38.5%	18.2%	18.2%	20.0%	0.0%

#### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	1.07	1.20	1.20	1.07	1.33

**Fine & Performing Arts Division****Fine Art (Excluding AR 1203)****FIVE YEAR PROGRAM REVIEW: Fine Art**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
AR	450	438	435	482	405

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	26	28	31	33	31
# of Sections	33	30	27	33	30
# Enrolled	450	438	435	482	405
Average Section Size	13.64	14.60	16.11	14.61	13.50
# of Seats Offered	928	911	950	988	1020
% Seats Filled	48.5%	48.1%	45.8%	48.8%	39.7%

Note: Arranged sections are excluded; cross listed sections counted as one.

Excludes AR\*1203

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	373	391	401	418	373
Grades of D, F	37	23	22	22	14
Withdrawal	42	32	13	46	25
% Successful	82.52%	87.67%	91.97%	86.01%	90.53%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	41.17	40.40	40.03	44.70	41.30
Faculty FTE	2.93	2.63	2.47	3.00	3.00
Student/Faculty Ratio	14.05	15.36	16.21	14.90	13.77

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10115 Art	208475	190546	192773	186863	219738
Cost per Student FYE	5063.76	4716.48	4815.71	4180.38	5320.53

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
AR	41.17	40.40	40.03	44.70	41.30

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	10	9	5	8	8
11-15	9	4	6	8	8
16-20	12	15	13	14	14
21-30	2	2	3	2	0
31-40	0	0	0	1	0
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	35	35	34	36	33
Credits Adjuncts	53	44	40	54	57
% Credits Faculty	39.8%	44.3%	45.9%	40.0%	36.7%
% Credits Adjuncts	60.2%	55.7%	54.1%	60.0%	63.3%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	1.17	1.17	1.13	1.20	1.10

## Graphic Design

### FIVE YEAR PROGRAM REVIEW: Graphic Design

No dual credit or articulated data are used in this study

#### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
GD	395	433	362	315	203

Note: Student count is duplicated.

#### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	17	17	13	14	14
# of Sections	36	38	27	30	19
# Enrolled	395	433	362	315	203
Average Section Size	10.97	11.39	13.41	10.50	10.68
# of Seats Offered	496	567	411	417	305
% Seats Filled	79.6%	76.4%	88.1%	75.5%	66.6%

Note: Arranged sections are excluded; cross listed sections counted as one.

#### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	345	391	332	305	216
Grades of D, F	38	30	32	20	11
Withdrawal	28	32	14	10	7
% Successful	83.94%	86.31%	87.83%	91.04%	92.31%

#### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	38.07	41.87	34.93	34.57	22.93
Faculty FTE	3.30	3.50	2.40	3.00	1.83
Student/Faculty Ratio	11.54	11.96	14.55	11.52	12.53

Note: Faculty FTE = add each course section credit and divide the sum by 30.

#### Department Costs

Cost Center	2010	2011	2012	2013	2014
10121 Graphic Design	156204	157289	148527	159469	157387
Cost per Student FYE	4103.07	3756.60	4252.13	4612.93	6863.80

#### Enrollment: FYE

Department	2010	2011	2012	2013	2014
GD	38.07	41.87	34.93	34.57	22.93

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

#### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	15	15	8	13	10
11-15	12	14	7	9	6
16-20	9	9	12	8	3
21-30					
31-40					
Over 40					

Note: Arranged sections are excluded.

#### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	27	40	39	30	21
Credits Adjuncts	72	65	33	60	34
% Credits Faculty	27.3%	38.1%	54.2%	33.3%	38.2%
% Credits Adjuncts	72.7%	61.9%	45.8%	66.7%	61.8%

#### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	0.90	1.33	1.30	1.00	0.70

## Music

## FIVE YEAR PROGRAM REVIEW: MUSIC

No dual credit or articulated data are used in this study

### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
MU	823	891	1001	900	687

Note: Student count is duplicated.

### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	37	45	51	60	60
# of Sections	48	55	59	56	46
# Enrolled	823	891	1001	900	687
Average Section Size	17.15	16.20	16.97	16.07	14.93
# of Seats Offered	2049	2470	3011	3043	3085
% Seats Filled	40.2%	36.1%	33.2%	29.6%	22.3%

Note: Arranged sections are excluded; cross listed sections counted as one.

### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	719	798	943	876	673
Grades of D, F	157	160	163	138	92
Withdrawal	74	80	85	59	54
% Successful	75.68%	76.88%	79.18%	81.64%	82.17%

### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	76.47	80.43	84.40	74.37	56.40
Faculty FTE	3.63	4.10	4.17	3.90	3.20
Student/Faculty Ratio	21.07	19.62	20.24	19.07	17.63

Note: Faculty FTE = add each course section credit and divide the sum by 30.

### Department Costs

Cost Center	2010	2011	2012	2013	2014
10115 Music	256831	266234	283049	274164	261052
Cost per Student FYE	3358.59	3310.13	3353.66	3686.49	4628.58

### Enrollment: FYE

Department	2010	2011	2012	2013	2014
MU	76.47	80.43	84.40	74.37	56.40

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	17	21	16	14	13
11-15	3	6	9	17	15
16-20	4	3	11	5	5
21-30	22	23	21	18	12
31-40	1	2	0	2	1
Over 40	1	0	2	0	0

Note: Arranged sections are excluded.

### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	65	74	69	69	57
Credits Adjuncts	44	49	56	48	39
% Credits Faculty	59.6%	60.2%	55.2%	59.0%	59.4%
% Credits Adjuncts	40.4%	39.8%	44.8%	41.0%	40.6%

### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.17	2.47	2.30	2.30	1.90

**Theatre and Communications****FIVE YEAR PROGRAM REVIEW: Theater & Communications**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
CT	1278	1398	1297	1326	1168

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	9	9	11	7	7
# of Sections	62	76	73	68	64
# Enrolled	1278	1398	1297	1326	1168
Average Section Size	20.61	18.39	17.77	19.50	18.25
# of Seats Offered	1535	1645	1584	1561	1388
% Seats Filled	83.3%	85.0%	81.9%	84.9%	84.1%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	935	1008	992	915	906
Grades of D, F	228	251	201	284	156
Withdrawal	144	154	156	164	142
% Successful	71.54%	71.34%	73.54%	67.13%	75.25%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	130.30	142.83	133.97	135.77	119.70
Faculty FTE	6.20	7.60	7.23	6.77	6.40
Student/Faculty Ratio	21.02	18.79	18.53	20.05	18.70

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10112 Theater & Communic	364538	375435	379394	371868	303968
Cost per Student FYE	2797.68	2628.54	2831.93	2738.96	2539.42

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
CT	130.30	142.83	133.97	135.77	119.70

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	5	6	9	4	4
11-15	4	8	9	9	6
16-20	17	32	27	23	31
21-30	34	30	28	31	23
31-40	2	0	0	1	0
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	72	72	76	65	78
Credits Adjuncts	114	156	141	138	114
% Credits Faculty	38.7%	31.6%	35.0%	32.0%	40.6%
% Credits Adjuncts	61.3%	68.4%	65.0%	68.0%	59.4%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.40	2.40	2.53	2.17	2.60

**Mathematics and Physical Science Division****Industrial Engineering Technology****FIVE YEAR PROGRAM REVIEW: Industrial Engineering**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
IE	205	158	105	168	256

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	14	13	10	15	14
# of Sections	18	15	10	15	25
# Enrolled	205	158	105	168	256
Average Section Size	11.39	10.53	10.50	11.20	10.24
# of Seats Offered	252	191	141	236	588
% Seats Filled	81.3%	82.7%	74.5%	71.2%	43.5%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	183	145	101	147	218
Grades of D, F	6	4	2	7	11
Withdrawal	16	9	3	14	28
% Successful	89.27%	91.77%	95.28%	87.50%	84.82%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	18.30	14.60	9.60	15.10	23.70
Faculty FTE	1.60	1.40	0.90	1.40	2.30
Student/Faculty Ratio	11.44	10.43	10.67	10.79	10.30

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10121 Industrial Engineer	116800	100347	76444	88325	179432
Cost per Student FYE	6382.51	6873.08	7962.92	5849.34	7570.97

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
IE	18.30	14.60	9.60	15.10	23.70

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	4	7	7	7	12
11-15	14	8	3	5	12
16-20	0	0	0	3	1
21-30					
31-40					
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	39	33	18	30	54
Credits Adjuncts	9	9	9	12	15
% Credits Faculty	81.3%	78.6%	66.7%	71.4%	78.3%
% Credits Adjuncts	18.8%	21.4%	33.3%	28.6%	21.7%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	1.30	1.10	0.60	1.00	1.80

## Mathematics

### FIVE YEAR PROGRAM REVIEW: MATHEMATICS

No dual credit or articulated data are used in this study

#### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
MT	3481	3983	3917	3827	3605

Note: Student count is duplicated.

#### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	17	17	18	18	19
# of Sections	160	192	185	196	183
# Enrolled	3481	3983	3917	3827	3605
Average Section Size	21.76	20.74	21.17	19.53	19.70
# of Seats Offered	3878	4433	4457	4700	5194
% Seats Filled	89.8%	89.8%	87.9%	81.4%	69.4%

Note: Arranged sections are excluded; cross listed sections counted as one.

#### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	1951	2212	2036	1914	1688
Grades of D, F	876	1055	1127	1123	974
Withdrawal	654	715	754	791	938
% Successful	56.05%	55.55%	51.98%	50.00%	46.89%

#### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	361.97	415.43	408.63	400.53	396.00
Faculty FTE	16.60	20.03	19.27	20.40	20.13
Student/Faculty Ratio	21.81	20.74	21.21	19.63	19.67

Note: Faculty FTE = add each course section credit and divide the sum by 30.

#### Department Costs

Cost Center	2010	2011	2012	2013	2014
10114 Mathematics	722623	794671	778680	760306	820763
Cost per Student FYE	1996.36	1912.89	1905.59	1898.25	2072.63

#### Enrollment: FYE

Department	2010	2011	2012	2013	2014
MT	361.97	415.43	408.63	400.53	396.00

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

#### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	6	4	6	30	11
11-15	18	13	20	13	24
16-20	33	79	61	44	60
21-30	98	91	88	103	87
31-40	2	4	10	6	1
Over 40	3	1	0	0	0

Note: Arranged sections are excluded.

#### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	331	328	334	351	377
Credits Adjuncts	167	273	244	261	227
% Credits Faculty	66.5%	54.6%	57.8%	57.4%	62.4%
% Credits Adjuncts	33.5%	45.4%	42.2%	42.6%	37.6%

#### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	11.03	10.93	11.13	11.70	12.57



**Physics and Transfer Engineering****FIVE YEAR PROGRAM REVIEW: Physics & Pre-Engineering**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
EGPH	362	345	304	353	324

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	17	17	15	20	16
# of Sections	25	24	23	29	25
# Enrolled	362	345	304	353	324
Average Section Size	14.48	14.38	13.22	12.17	12.96
# of Seats Offered	578	512	487	595	518
% Seats Filled	62.6%	67.4%	62.4%	59.3%	62.5%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	300	296	233	272	240
Grades of D, F	31	21	29	44	47
Withdrawal	31	28	42	37	37
% Successful	82.87%	85.80%	76.64%	77.05%	74.07%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	30.87	29.17	25.93	29.70	26.83
Faculty FTE	2.17	2.03	1.97	2.47	2.10
Student/Faculty Ratio	14.23	14.37	13.16	12.02	12.78

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10114 Physics & Pre-Enginet	218613	226725	215927	229343	223664
Cost per Student FYE	7081.73	7772.54	8327.30	7721.99	8336.34

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
EGPH	30.87	29.17	25.93	29.70	26.83

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	7	8	11	12	5
11-15	6	7	2	11	14
16-20	10	7	8	6	6
21-30	2	2	2	0	0
31-40					
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	62	58	56	69	58
Credits Adjuncts	3	3	3	5	5
% Credits Faculty	95.4%	95.1%	94.9%	93.2%	92.1%
% Credits Adjuncts	4.6%	4.9%	5.1%	6.8%	7.9%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.07	1.93	1.87	2.30	1.93

**Precision Machining Technology****FIVE YEAR PROGRAM REVIEW: Precision Machining**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
MA	296	305	337	374	529

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	23	22	22	20	22
# of Sections	38	32	29	33	53
# Enrolled	296	305	337	374	529
Average Section Size	7.79	9.53	11.62	11.33	9.98
# of Seats Offered	702	782	866	566	1203
% Seats Filled	42.2%	39.0%	38.9%	66.1%	44.0%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	278	316	299	356	482
Grades of D, F	6	0	33	15	38
Withdrawal	19	13	4	11	24
% Successful	91.75%	96.05%	88.99%	93.19%	88.60%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	16.50	17.40	17.80	23.53	34.33
Faculty FTE	2.03	1.67	1.53	2.07	3.37
Student/Faculty Ratio	8.13	10.42	11.63	11.37	10.19

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10121 Precision Machining	88279	87099	96759	110176	126685
Cost per Student FYE	5350.24	5005.69	5435.90	4682.36	3690.21

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
MA	16.50	17.40	17.80	23.53	34.33

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	29	17	10	15	28
11-15	3	5	13	6	18
16-20	6	10	4	9	7
21-30	0	0	2	3	0
31-40					
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	39	39	36	39	85
Credits Adjuncts	22	11	10	23	16
% Credits Faculty	63.9%	78.0%	78.3%	62.9%	84.2%
% Credits Adjuncts	36.1%	22.0%	21.7%	37.1%	15.8%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	1.30	1.30	1.20	1.30	2.83

**Nursing and Allied Health Division****Fire Technology****FIVE YEAR PROGRAM REVIEW: FIRE TECHNOLOGY**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
FT	83	89	65	77	67

Note: Student count is duplicated.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	8	8	6	9	7
# of Sections	8	10	8	9	9
# Enrolled	83	89	65	77	67
Average Section Size	10.38	8.90	8.13	8.56	7.44
# of Seats Offered	201	196	141	161	181
% Seats Filled	41.3%	45.4%	46.1%	47.8%	37.0%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	62	63	33	47	44
Grades of D, F	16	12	20	8	16
Withdrawal	2	3	1	4	2
% Successful	77.50%	80.77%	61.11%	79.66%	70.97%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	9.47	11.30	8.50	8.93	8.03
Faculty FTE	0.97	1.27	1.07	1.07	1.17
Student/Faculty Ratio	9.76	8.90	7.94	8.35	6.86

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10124 Fire Technology	23666	23685	19035	22991	18018
Cost per Student FYE	2499.05	2096.02	2239.41	2574.58	2243.84

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
FT	9.47	11.30	8.50	8.93	8.03

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	4	8	5	5	6
11-15	4	1	3	4	3
16-20					
21-30	0	1	0	0	0
31-40					
Over 40					

Note: Arranged sections are excluded.

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty					
Credits Adjuncts	29	38	32	32	35
% Credits Faculty	0.0%	0.0%	0.0%	0.0%	0.0%
% Credits Adjuncts	100.0%	100.0%	100.0%	100.0%	100.0%

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	0.00	0.00	0.00	0.00	0.00

## Nursing

### FIVE YEAR PROGRAM REVIEW: Nursing

No dual credit or articulated data are used in this study

#### Enrollment: Headcount

Department	2010	2011	2012	2013	2014
NR	534	514	542	560	538

Note: Student count is duplicated.

#### Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	12	12	12	12	12
# of Sections	30	29	32	35	35
# Enrolled	534	514	542	560	538
Average Section Size	17.80	17.72	16.94	16.00	15.37
# of Seats Offered	672	721	748	785	821
% Seats Filled	79.5%	71.3%	72.5%	71.3%	65.5%

Note: Arranged sections are excluded; cross listed sections counted as one.

#### Course Completion & Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	509	488	521	509	466
Grades of D, F	4	6	10	16	6
Withdrawal	32	28	34	45	50
% Successful	93.39%	93.49%	92.21%	89.30%	89.27%

#### Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	70.37	67.70	71.47	73.87	71.70
Faculty FTE	3.83	3.73	4.17	4.53	4.53
Student/Faculty Ratio	18.37	18.15	17.14	16.31	15.83

Note: Faculty FTE = add each course section credit and divide the sum by 30.

#### Department Costs

Cost Center	2010	2011	2012	2013	2014
10121 Nursing	720034	792183	753467	832278	944218
Cost per Student FYE	10232.12	11701.37	10542.42	11266.79	13169.01

#### Enrollment: FYE

Department	2010	2011	2012	2013	2014
NR	70.37	67.70	71.47	73.87	71.70

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

#### Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	2	7	5	8	14
11-15	12	2	12	6	4
16-20	4	11	4	16	12
21-30	12	9	8	5	4
31-40	0	0	3	0	1
Over 40					

Note: Arranged sections are excluded.

#### Credits Taught by Faculty & Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	102.5	98	103.5	100.5	124
Credits Adjuncts	12.5	14	21.5	35.5	12
% Credits Faculty	89.1%	87.5%	82.8%	73.9%	91.2%
% Credits Adjuncts	10.9%	12.5%	17.2%	26.1%	8.8%

#### Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	3.42	3.27	3.45	3.35	4.13

**Science Division****Biology****FIVE YEAR PROGRAM REVIEW: BIOLOGY**

No dual credit or articulated data are used in this study

**Enrollment: Headcount**

Department	2010	2011	2012	2013	2014
Bl	2695	2044	2042	1203	1080

Note: Student count is duplicated.

**Enrollment: FYE**

Department	2010	2011	2012	2013	2014
Bl	215.23	161.13	161.83	161.33	157.90

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

**Course Frequencies**

title	2010	2011	2012	2013	2014
# of Courses	23	15	19	17	11
# of Sections	142	123	119	71	70
# Enrolled	2695	2044	2042	1203	1080
Average Section Size	18.98	16.62	17.16	16.94	15.43
# of Seats Offered	3239	2797	2671	1498	1424
% Seats Filled	83.2%	73.1%	76.5%	80.3%	75.8%

Note: Arranged sections are excluded; cross listed sections counted as one.

**Class Size Distribution**

class size	2010	2011	2012	2013	2014
1-10	14	30	21	9	13
11-15	23	19	12	17	19
16-20	45	35	53	21	28
21-30	57	38	33	24	10
31-40	1	0	0	0	0
Over 40	2	1	0	0	0

Note: Arranged sections are excluded.

**Course Completion & Withdrawals**

	2010	2011	2012	2013	2014
Grades of A, B, C	1986	1539	1570	933	810
Grades of D, F	276	237	234	153	127
Withdrawal	441	283	244	124	148
% Successful	73.47%	74.75%	76.66%	77.11%	74.65%

**Credits Taught by Faculty & Adjuncts**

	2010	2011	2012	2013	2014
Credits Faculty	263	240	250	242	267
Credits Adjuncts	71	47	30	38	36
% Credits Faculty	78.7%	83.6%	89.3%	86.4%	88.1%
% Credits Adjuncts	21.3%	16.4%	10.7%	13.6%	11.9%

**Student/Faculty Ratio**

	2010	2011	2012	2013	2014
Student FYE	215.23	161.13	161.83	161.33	157.90
Faculty FTE	11.13	9.57	9.33	9.33	10.10
Student/Faculty Ratio	19.34	16.84	17.35	17.29	15.63

Note: Faculty FTE = add each course section credit and divide the sum by 30.

**Faculty/Student Load**

	2010	2011	2012	2013	2014
FT Faculty/Student Load	8.77	8.00	8.33	8.07	8.90

**Department Costs**

Cost Center	2010	2011	2012	2013	2014
10112 Biology	455656	678272	588082	561601	633243
Cost per Student FYE	2117.07	4209.47	3633.95	3481.07	4010.41

## Chemistry

## FIVE YEAR PROGRAM REVIEW: CHEMISTRY

No dual credit or articulated data are used in this study

## Enrollment: Headcount

Department	2010	2011	2012	2013	2014
CH	604	822	801	433	307

Note: Student count is duplicated.

## Course Frequencies

title	2010	2011	2012	2013	2014
# of Courses	11	10	12	8	4
# of Sections	43	56	52	30	22
# Enrolled	604	822	801	433	307
Average Section Size	14.05	14.68	15.40	14.43	13.95
# of Seats Offered	782	1134	993	550	445
% Seats Filled	77.2%	72.5%	80.7%	78.7%	69.0%

Note: Arranged sections are excluded; cross listed sections counted as one.

## Course Completion &amp; Withdrawals

	2010	2011	2012	2013	2014
Grades of A, B, C	420	528	479	270	187
Grades of D, F	61	84	111	54	22
Withdrawal	123	214	212	109	98
% Successful	69.54%	63.92%	59.73%	62.36%	60.91%

## Student/Faculty Ratio

	2010	2011	2012	2013	2014
Student FYE	50.63	68.70	67.00	64.87	50.10
Faculty FTE	3.60	4.67	4.37	4.43	3.60
Student/Faculty Ratio	14.06	14.71	15.33	14.64	13.92

Note: Faculty FTE = add each course section credit and divide the sum by 30.

## Department Costs

Cost Center	2010	2011	2012	2013	2014
10114 Chemistry	238890	272138	278347	282713	304185
Cost per Student FYE	4718.35	3961.25	4154.43	4358.15	6071.56

## Enrollment: FYE

Department	2010	2011	2012	2013	2014
CH	50.63	68.70	67.00	64.87	50.10

Note: FYE = Full Year Equivalency; calculated by dividing total credits by 30.

## Class Size Distribution

class size	2010	2011	2012	2013	2014
1-10	12	16	10	5	6
11-15	16	12	5	9	5
16-20	11	22	33	14	11
21-30	4	6	4	2	0
31-40					
Over 40					

Note: Arranged sections are excluded.

## Credits Taught by Faculty &amp; Adjuncts

	2010	2011	2012	2013	2014
Credits Faculty	70	90	93	95	88
Credits Adjuncts	38	50	38	38	20
% Credits Faculty	64.8%	64.3%	71.0%	71.4%	81.5%
% Credits Adjuncts	35.2%	35.7%	29.0%	28.6%	18.5%

## Faculty/Student Load

	2010	2011	2012	2013	2014
FT Faculty/Student Load	2.33	3.00	3.10	3.17	2.93

## SECTION 6: THE LEARNING CENTER & TESTING CENTER (UNION CAMPUS)

Submitted by: **Erin Anglin, *The Learning Center director***, (fall 2013 – spring 2014)

### Services Survey Results (Facilities)

#### ***Fall 2013***

The responses below indicate a margin of dissatisfaction with the login procedure and study environment. TLC staff is in the process of upgrading the current tracking software to streamline the login and reporting processes. For heavier traffic times, staff can log students in and out or take names for manual entry to expedite the wait time.

Students are also dissatisfied with the study environment. Unfortunately, due to the high volume of traffic through the facility, it creates a louder than average environment. The staff has increased the promotion and use of TLC group study rooms; in addition they frequently monitor noise levels by walking around the facility.

Please indicate your response to each statement about The Learning Center. You may add comments in the next question.						
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Rating Average	Response Count
The space is appropriate for individual study.	1	5	43	33	3.32	82
The space is appropriate for group study.	1	2	38	40	3.44	81
The computers meet my academic needs.	2	1	35	44	3.48	82
The environment is conducive to studying.	2	13	41	25	3.10	81
The staff is helpful.	0	0	23	59	3.72	82
The login process is efficient.	3	8	35	36	3.27	82
<i>answered question</i>						82
<i>skipped question</i>						30

#### ***Spring 2014***

The spring 2014 survey response results were slightly lower than fall 2013, which could be due to lower enrollment or timing of the surveys release. However, there is an increase in satisfaction in environment conducive to studying. TLC staff has worked diligently to maintain appropriate noise levels or to address issues as soon as they arise.

The login process is still a point of contention and the staff continues to work with IT and administration on updating TLC software for efficiency.

## The Learning Center and Testing Center Visits and Reasons

**Fall 2013**

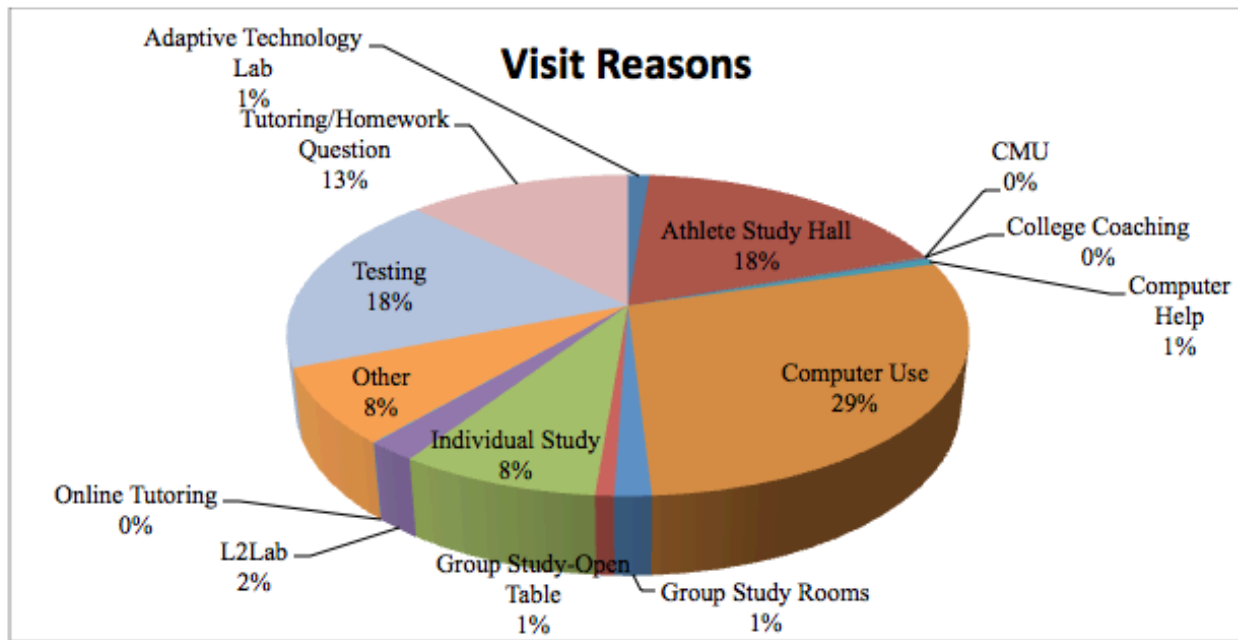
	<b>Adaptive Tech Lab</b>	<b>L2 Lab</b>	<b>Learning Center - Union</b>	<b>Testing Center - Union</b>	<b>Totals</b>
<b>Total Visits:</b>	190	312	12,265	2,891	15,658
<b>Total Students:</b>	11	282	802	797	1,892

*This report listed 1,892 with a total of 15658 visits displayed.*

<b>Resource/Visit Reason</b>	<b>Quantity</b>
Adaptive Technology Lab	190
Athlete Study Hall	2,871
CMU	10
College Coaching	31
Computer Help	103
Computer Use	4,478
Group Study Rooms	229
Group Study-Open Table	116
Individual Study	1,249
L2Lab	312
Online Tutoring	6
Other	1,192
Testing	2,891
Tutoring/Homework Question	1,980
<b>Total</b>	<b>15,658</b>



Fall 2013 (continued)



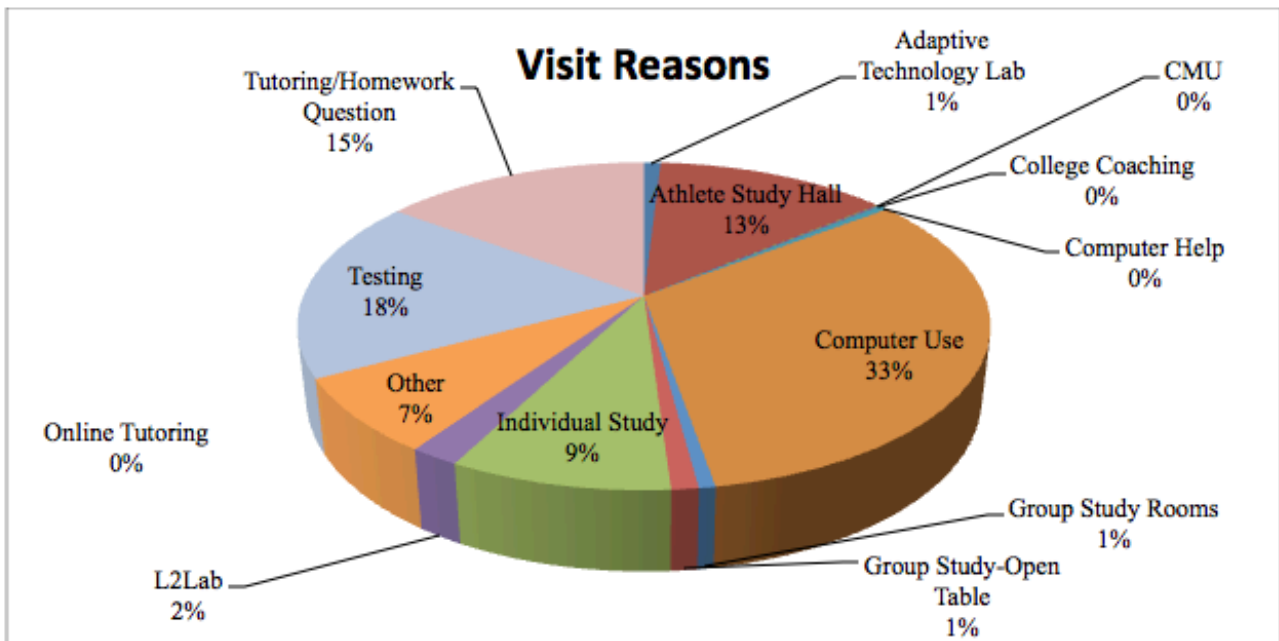
**Spring 2014**

	<b>Adaptive Tech Lab</b>	<b>L2 Lab</b>	<b>Learning Center - Union</b>	<b>Testing Center - Union</b>	<b>Totals</b>
<b>Total Visits:</b>	204	259	10,337	2,376	13,176
<b>Total Students:</b>	10	257	745	754	1,766

*This report listed 1,766 students with a total of 13,176 visits displayed.*

<b>Resource/Visit Reason</b>	<b>Quantity</b>
Adaptive Technology Lab	123
Athlete Study Hall	1,708
CMU	8
College Coaching	17
Computer Help	66
Computer Use	4,303
Group Study Rooms	86
Group Study-Open Table	140
Individual Study	1,149
L2Lab	259
Online Tutoring	0
Other	976
Testing	2,376
Tutoring/Homework Question	1,965
<b>Total</b>	<b>13,176</b>

Spring 2014 (continued)



## Services Survey Results (Tutoring Services)

### Fall 2013

Overall, students are satisfied with the TLC tutoring services and find them beneficial. The staff needs to strengthen their commitment to improving study habits, and better promote the College Success Coaching program to students and faculty (Table 2). TLC does offer supplemental handouts on “how to” techniques related to study skills.

Tutoring/Homework Help: Was your tutor.....					
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Response Count
...knowledgeable about the subject matter?	0	1	17	38	56
...listening, respectful, and courteous?	0	0	17	39	56
...able to help you understand the material explaining it in multiple ways if needed?	0	1	20	34	55
...communicating clearly?	0	1	18	37	56
...encouraging you to participate in the tutoring session?	0	3	20	33	56
...giving you helpful suggestions for improving your study habits?	0	5	19	29	53
<i>answered question</i>					56
<i>skipped question</i>					56

I believe my grade....		
Answer Options	Response Percent	Response Count
...will improve with the tutoring or coaching I received.	82.4%	42
...will stay the same.	17.6%	9
...will be lower because of the tutoring or coaching I received.	0.0%	0
<i>answered question</i>		51
<i>skipped question</i>		61

College Success Coaching: Was your coach....					
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Response Count
...knowledgeable?	0	1	9	10	20
...listening, respectful, and courteous?	0	0	10	10	20
...communicating clearly?	0	0	10	10	20
...encouraging you to participate in the coaching session?	0	0	11	9	20
...giving you helpful suggestions for improving your study habits?	0	0	10	10	20
<i>answered question</i>					20
<i>skipped question</i>					92

**Spring 2014**

Students continued to be satisfied with the TLC tutoring services. Staff can improve on promoting participation during tutoring sessions, and have discussed strategies and techniques during training to increase active participation. The TLC is also looking into increasing the tutor session length time from 30 minutes to one hour for active participants as incentive.

Tutoring/Homework Help: Was your tutor.....					
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Response Count
...knowledgeable about the subject matter?	2	2	23	34	61
...listening, respectful, and courteous?	2	0	15	43	60
...able to help you understand the material explaining it in multiple ways if needed?	2	3	19	37	61
...communicating clearly?	2	0	19	39	60
...encouraging you to participate in the tutoring session?	2	5	18	36	61
...giving you helpful suggestions for improving your study habits?	3	3	20	35	61
<i>answered question</i>					61
<i>skipped question</i>					26

I believe my grade(s)....		
Answer Options	Response Percent	Response Count
...will improve with the tutoring or coaching I received.	86.0%	49
...will stay the same.	14.0%	8
...will be lower because of the tutoring or coaching I received.	0.0%	0
<i>answered question</i>		57
<i>skipped question</i>		30

College Success Coaching: Was your coach....					
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Response Count
...knowledgeable?	0	0	12	17	29
...listening, respectful, and courteous?	0	0	12	17	29
...communicating clearly?	0	0	13	16	29
...encouraging you to participate in the coaching session?	0	2	14	13	29
...giving you helpful suggestions for improving your study habits?	0	1	13	15	29
<i>answered question</i>					29
<i>skipped question</i>					58

## Services Survey Results (Testing Center)

### **Fall 2013**

The survey responses indicate the largest dissatisfaction with storage space for personal effects, comfort level of the facility and distractions of the space. TLC staff continues to address the lack of storage, but allows larger materials to be kept on the floor near the locker space. Students have also realized that the area is not equipped to handle larger backpacks and plan accordingly to store them elsewhere.

In addition, students expressed discontent with the temperature in the testing room. In the comments section of the survey, the majority of complaints were the varying temperatures running between very warm and very cold. The Facilities and Grounds Department is aware of these conditions and have stated this is an HVAC issue that affects the whole building.

The level of distraction in the testing room was also a concern in the student survey. Unfortunately, the TC facility is designed with testing security in mind. The room has glass windows for staff to monitor students; however, the facility is located within The Learning Center, a high traffic area, resulting in distractions. TLC staff members need to improve their efforts to minimize TLC noise levels, especially those areas closest to the testing rooms. They are also mindful to minimize the noise they make when helping students in the computer testing room as not to distract the other students.

Please indicate your response to each statement about the Testing Center. You may add comments in the next question.					
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Response Count
The staff is professional.	3	1	33	31	68
The login process is efficient.	4	4	31	28	67
The storage space for my belongings is sufficient.	8	17	18	24	67
The testing room has enough seating.	3	0	32	33	68
The testing room seating is comfortable.	2	3	35	28	68
The temperature in the testing room is comfortable.	4	8	33	23	68
The testing room is quiet.	3	3	28	34	68
The testing room is distraction-free.	4	7	30	27	68
The testing room computers meet my testing needs.	2	2	31	25	60
<i>answered question</i>					<b>68</b>
<i>skipped question</i>					<b>44</b>

### **Spring 2014**

This year's Testing Center survey included individualized questions about the two differing testing facilities (paper/pencil room and computer room). The reason the questions were separated was to determine which room presented more disagreements.

Overall, students are still not satisfied with the storage space in the facilities. Staff continues to encourage students to place what they can in lockers and the rest will be monitored as best as possible. There are limited solutions due to the fixed lockers in the facility.

The survey indicates more students are dissatisfied with the seating, temperature and distraction in the pencil/paper testing room. The seating in the paper/pencil testing room is fixed desks and chairs, with a limited number of tables and chairs. The limited mobility provided by the desks might be both a

hindrance in comfort and a distraction to students testing; whereas in the computer testing room, the chairs are on casters with the ability to move away from the desk.

The HVAC conditions are not something staff members can control; however, they do document the complaints and pass the information on to the Facilities and Grounds Department.

Testing Center staff members believe lack of student focus is the reason why the dissatisfaction results are higher in the pencil/paper room than in the computer room. In the computer testing facility, the computer distracts students from outside interference.

Please indicate your response to each statement about the Testing Center. You may add comments at the end.					
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Response Count
The staff is professional.	1	1	36	23	61
The login process is efficient.	4	2	37	18	61
The storage space for my belongings is sufficient.	5	17	26	14	62
Please specify if you disagree or if you have any other comments.					12
<i>answered question</i>					62
<i>skipped question</i>					25

Please indicate your response to each statement about the Paper/Pencil Testing Room. You may add comments in the next question.						
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Rating Average	Response Count
The room seating is comfortable.	2	7	25	11	3.00	45
The temperature in the room is comfortable.	1	6	25	13	3.11	45
The room is quiet.	2	2	22	19	3.29	45
The room is distraction-free.	2	3	24	16	3.20	45
Please specify if you disagree or if you have any other comments.						4
<i>answered question</i>						45
<i>skipped question</i>						42

Please indicate your response to each statement about the Computer Testing Room. You may add comments at the end.						
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree	Rating Average	Response Count
The Computer Testing Room seating is comfortable.	1	2	20	13	3.25	36
The temperature in the room is comfortable.	1	2	22	11	3.19	36
The room is quiet.	0	0	24	12	3.33	36
The room is distraction-free.	0	0	24	12	3.33	36
The testing computers performed to my expectations.	0	0	24	12	3.33	36
The staff efficiently trouble-shot any computer issues. (Please leave blank if it doesn't apply)	1	0	17	9	3.26	27
Please specify if you disagree or if you have any other comments.						4
<i>answered question</i>						36
<i>skipped question</i>						51

## **SECTION 7: THE ECC WRITING PROJECT**

Submitted by: **Sue Henderson, English instructor, writing/composition coordinator**  
(August 2012 – May 2014)

### **Project Declaration**

#### ***Project Goal***

This project will support the current commitment to writing as a means for learning that is part of the ECC General Education Requirements, specifically the Common Learning Objective of Communication. The project will also develop resources to enhance classroom writing practices and approaches. The project will include two distinct but related components:

1. Review and assess current practice/implementation of the “W” as a general education requirement.
2. Identify the needs of and offer support to faculty who utilize writing in their instruction.

#### ***AQIP Category***

Helping Students Learn

#### ***Project Motivation***

Many years ago, as part of the establishment of general education core skills and knowledge areas required for successful student learning, ECC designated writing as a key component. The emphasis was reaffirmed in recent years when ECC determined the three Common Learning Objectives, with communication listed among them. Students are required to take two “W” courses for graduation.

While the goal was established, and specific “W” guidelines created, there has been no structural follow-up on the implementation and evaluation of the guidelines in the years since. And despite the “W” being among the core educational skills, it is not clear what ECC as an institution truly values about writing in the context of learning or how the college might improve upon its approaches to writing to better serve the students in today’s work and education environment.

In spring 2011, a college-wide assessment of the Communication CLO, under which writing falls, was conducted, revealing some fundamental differences among the academic departments about what makes good writing and how good writing is taught in classes. Discussions about the CLO Communication assessment pointed directly to reassessing the “W” designation and the need for further consideration of classroom assessment and practices.

Thus, several areas for review have been identified regarding the “W” designation:

- Because the “W” designation was, at the time, defined and quantified by the English Department, and no non-English faculty, many of whom teach “W” courses, were part of the original discussion, the cross-curricular conversation about writing is missing.
- At the time the definition was established, no mechanism for assessing or reporting on the course fulfillment of the “W” was devised. As a result, there is no formal means to confirm that students are indeed completing the requirements.
- The “W” definition has not been revisited since the time it was first established; therefore, the designation needs to be reviewed and possibly revised to better reflect current pedagogy of writing as a means of learning and to coincide with the practices of the faculty teaching “W” courses.



- In terms of the second project component, the motivation to provide ongoing faculty support and development comes from the variety of perceptions about what constitutes good writing in an academic setting. If the college wants to encourage and support the use of writing in the classroom, current areas of strength and areas for improvement must be identified. The institutional approach to writing should align with best practices and reflect the needs of ECC students.

#### ***Organizational Areas Most Affected/Involved***

- Academic departments and faculty across the curriculum will be affected and involved through implementation of assessment procedures and on-going faculty development. Any course designated as a “W” will be under review, but all courses that are potentially “W” will also be included.
- The Assessment Committee and Academic Council will also be affected as curricular changes become necessary.
- Student Services will also be involved as a result of course designation modifications and in advisement for students about “W” courses and requirements.
- The Office of Institutional Research may be involved for any needed baseline data and follow-up evaluations.

#### ***Key Organizational Processes/Activities***

- Student learning through more clearly defined goals, practices and assessment of the “W” designation.
- Faculty development through the creation of resources and ongoing development opportunities for new and refined teaching practices and through cross-curricular conversations about the role of writing in learning.
- Curricular development and design as best practices are implemented in courses and new approaches to courses created.

#### ***Project Timeframe Rationale***

This project will primarily require faculty participation to define, refine, and implement the “W,” to measure effectiveness of assessment and create development resources for ongoing improvement of writing in learning.

##### Fall 2012

- Review and revise the current W designation and develop a formal means of assessment.
- Identify current “W” courses and possible new “W” courses.

##### Spring 2013

- Pilot and review “W” assessment process and address any necessary changes.
- Identify needs of faculty using or wanting to use writing as a tool for learning in their courses.

##### Fall 2013

- Develop resources and support for faculty regarding writing in courses: workshops, online resources, campus-wide writing handbook.
- Implement any necessary changes to W as determined by assessment process.

##### Spring 2014

- Evaluate project.

***Project Publication and Monitoring***

This AQIP committee has already begun meeting regarding the “W” designation to review current definition and begin addressing possible changes. The committee has also already met with a majority of faculty during spring 2012 in-service to gather initial information regarding how writing is used in classes across campus.

- Project members will visit divisions during their meetings to discuss questions and issues regarding the W.
- During in-service weeks, sessions will be set aside to inform faculty of goals for the semester and report on project progress.
- Ongoing workshops will be advertised and presented to provide all faculty members with support for using writing in classes.
- Campus-wide promotion can come in the form of flyers and posters promoting the role of writing in learning.

***Overall Outcome Measures/Indicators***

- Assessment process for “W” designation created, implemented and reviewed.
- Faculty resources developed and implemented.

## **Project Exit Questions**

### ***1. Briefly describe the current status of the project.***

The original end date for the project was spring 2014. The Writing Project Committee stopped meeting at that time. While the committee members had not completed all the work they originally set out to do, they disbanded as a group because the project had become part of the purview of a new position on campus: the writing/composition coordinator. Because an institutional “home” had been found, the work of the project would presumably continue.

### ***2. Explain how this project relates to any strategic initiatives or challenges described in the institution’s most recent or soon-to-be submitted systems portfolio, if applicable.***

The Writing Project is under the category of Helping Students Learn. The effectiveness of using writing as a tool for learning is well researched and documented outside of ECC. Part of the goal was to determine the effectiveness of the institution’s writing instruction across disciplines. As such, the project aimed to create more clearly defined course objectives for the teaching of writing and establish vibrant and up-to-date practices for assessing writing in the classroom.

The “W” designation is also a component of curricular changes occurring with the Common Learning Objectives. Part of the challenge of the general education redesign is to envision what the “W” designation will look like in this new model.

### ***3. List the project goals as stated in the original project declaration along with the metrics/measures for assessing the progress for each goal.***

#### Project Goal

This project will support the current commitment to writing as a means for learning that is part of the ECC General Education Requirements, specifically the Common Learning Objective of Communication. The project will also develop resources to enhance classroom writing practices and approaches. The project will include two distinct but related components:

1. Review and assess current practice/implementation of the “W” as a general education requirement.
2. Identify the needs of and offer support to faculty who utilize writing in their instruction.

#### Measures

In fall 2013, a survey was given to both students and faculty regarding how writing is incorporated into “W” courses, how it is assessed and to what degree both students and faculty believe the “W” requirements are being met.

In the same semester, the CAAP English assessment was administered in several sections of the Freshman Seminar class to serve as a base-line score to track students through the “W” requirement. It was decided to use the CAAP at the beginning of students’ writing career at ECC to provide a nationally normed measurement and for comparative data when the “W” writing assessment was administered (not completed).

A “W” Faculty Consultation Process was developed. The purpose of the consultation is to talk with “W” faculty about course goals as they pertain to writing, look at samples of best practice and help faculty identify any areas for improvement.

**4. Describe what has been accomplished with this project over the past year, specifically referring to quantifiable results that show progress. You may need to include a discussion clarifying how the original goals and anticipated outcomes may have shifted during the year.**

The “W” Designation was revised to more clearly reflect best practice described in current disciplinary literature and as exemplified among similar programs in other institutions, emphasizing the intentional teaching of writing in discipline courses, approaching writing as a process and committing to ongoing faculty development. A Moodle page was also created to house AQIP documentation and also serve as a clearinghouse of resources for all faculty interested in using writing in their courses. Current research, helpful websites, model programs and sample assignments are available.

During the two-year of the project, several sessions of faculty development regarding writing to learn were offered. The sessions were scheduled during in-service weeks and at various times during the semesters that the project ran. Such development opportunities rest at the heart of the original mission for this project: to assist the faculty already teaching “W” courses in improving and strengthening their use of writing in the classroom. Another goal of the project was to reach out and offer techniques and encouragement to faculty who had not yet committed to teaching classes as “W” but were interested in using more writing in their instruction.

Both student and faculty-based surveys were conducted regarding impressions about writing instruction at ECC. Results were gathered from almost 150 students and at least 20 faculty members. The survey measured impressions such as effectiveness and extent of writing instruction, transference of writing skills in other courses and understanding of the role of “W” courses in the curriculum.

An assessment plan and procedures were developed to evaluate the “W” designation on both programmatic and classroom levels. While researching practices at other institutions, project members found that not many schools actually assess their faculty in terms of meeting the goals and objectives of “W” courses. The model they created was meant to reinforce and deepen the “improve and strengthen” goal of the faculty development offerings.

**5. Describe how various members of the learning community have participated in this action project. Show the breadth of involvement by individuals and groups over the project’s duration, particularly during the past year.**

“W” faculty from across disciplines (but not representative of all areas that offer W courses), Learning Center staff and the Developmental Education coordinator comprised the working group. People who genuinely believe in writing to learn participated. But refocusing and renewing campus culture regarding writing is not a quick turnaround concept nor does it yield immediate results. As such, commitment to the project admittedly waned in the second year.

Too pulled between responsibilities, faculty went on to other projects or commitments. While sub-committees were charged with different components of the project, follow through was minimal, and the bulk of the work rested with the committee chairs.

The spring semester of the first year was spent in revising the “W” designation, and much of the other work was concentrated in fall term 2013. It may seem that the project could have taken just one year; however, that initial semester was needed to begin conversations about and capture attitudes toward writing within institutional culture. And, work fell off in the final semester in part because of the sense

that project members didn't know what was going to happen to the "W" designation within the new CLO framework.

**6. Describe the effect that this project has had on the institution, students and others in the learning community. What has the institution learned that can be identified as a good practice to use in other aspects of its quality work or from which other institutions might benefit?**

The project has had minimal effect at this point. Many of the originally stated goals have been only partially accomplished. The goals themselves are valid and could teach faculty much about how to improve writing instruction and the potential of writing across the disciplines at ECC. But to fully implement such a plan requires more time than is allotted. In the first year of the project, the chairs were not given any release time to meet goals. In the second year, both chairs had one class release time, but their duties also included other discipline-specific responsibilities. Currently, the role of overseeing "W" courses is part of the composition coordinator's position, which is a positive step toward greater implementation of the original objectives.

But with the shift to the CLOs, the "W" designation is in flux. It is possible that becoming one of just three instead of five learning objectives will allow writing to play a more prominent curricular role on the campus. However, it is also possible writing may become isolated from the disciplines and the work this project set out to accomplish may have no bearing on the culture of the college. As it is, faculty have not shaken the view that to teach a "W" designated course is anything more than extra work, and writing does not play any more of a significant curricular role than it did before. In the end, the project has failed to change the attitudes of both faculty and students in terms of the importance of writing as a means of learning.

One component that the committee developed that could benefit other institutions is the Faculty Consultation Process. This process is intended to be a positive, congenial and communal way to help "W" faculty improve instruction. Once that process actually becomes a working model, it could help formalize and reinforce "W" instruction within disciplines.

**7. Describe the anticipated challenges that may be encountered in successfully completing the project or for institutionalizing the learning from the project's goals.**

Time is always a challenge, especially at a two-year institution where full-time faculty members are stretched thin. They still feel that writing is "just one more thing" they have to do in a class. To help assuage these feelings, more time is needed for faculty participation in development activities and for writing instruction and assessment in courses. The composition coordinator also needs time for review and implementation of program level assessment activities.

Money is also an issue: faculty members receive minimal financial support for development activities. There are many resources available regarding writing instruction across the disciplines, but they cost money. There is no budget for this area/position for any kind of on-going development for the coordinator, nor is there money for bringing in outside experts for continued faculty development. Until the institution shows it truly values the kind of effort it takes to teach writing well within and across the disciplines—through resources of time and money—not much will come of this project.

Finally, the revised CLOs may also pose a challenge. While Communication remains one of the three learning objectives, and writing is, of course, considered a means of communicating, it seems that

writing is destined to be disconnected from content area courses rather than remaining integrated. The CLO model is still in development, but it appears at this time that the writing-in-the-disciplines model will probably cease to exist, and it is unclear what role writing as a tool for learning will play outside of composition courses.

**8. In light of the project goals, current circumstances, institutional learning from this project, and anticipated barriers to success, list the next steps to be taken over the course of the next 12 - 24 months in order to complete or institutionalize the results of this action project.**

**Provide a timeline for completing each next step.**

The current Composition/Writing Coordinator is participating on the AQIP General Education Redesign Committee to remain an active participant and advocate in conversations about how writing will remain a part of the general education requirements.

The coordinator also plans to follow through on several elements of the original project:

*By December 2014:*

- Implement the Faculty Consultation process with at least two participants to determine what changes to the process might be needed.
- Provide a faculty development opportunity regarding writing to learn strategies.

*By February 2015:*

- Analyze survey results and publish for institutional review.

*By May 2015:*

- Through participation in the CLO Redesign committee, help shape the role of writing within the new learning objective matrix.
- Implement the second assessment mechanism, a common assignment for all “W” courses, which was not completed during the original project.

**9. Provide any additional information, inquires or concerns that the institution wishes for reviewers to understand regarding this action project.**

Unfortunately, each of this project’s successes could also be considered less than successful. While the faculty development opportunities were well-received, there simply was not enough time to offer more events. The goal was to provide regularly scheduled faculty workshops, but that wasn’t possible given the teaching load of the AQIP Writing Project chair and the teaching/meeting schedule of faculty in general. Additionally, many faculty who do teach “W” classes did not attend the sessions offered, thus opportunities for improvement or strengthening were lost.

For similar reasons, the results of the surveys have yet to be fully analyzed. Conducted in mid-fall term of 2013, AQIP committee members simply did not have adequate time to read results and determine directions to go based upon responses.

Time—more correctly, the lack of it—has been the continual bugaboo of this project. There is so much potential for having such a branch of the curriculum flourish under the right circumstances, but directing, implementing and participating in all that potential takes more time than exists currently in faculty schedules.

## **SECTION 8: SUMMARY**

This fifth edition of the *ECC Assessment Report* captures the depth and scope of assessment activities on campus.

It also demonstrates the need for continued work on the reporting formats, the use and analysis of data, the roles of program review and voluntary program accreditation, and diligence to the use of all of the information for improved student learning.



EAST CENTRAL COLLEGE ~ 1964 Prairie Dell Road ~ Union, Mo. 63084  
(636) 584-6500 ~ <http://www.eastcentral.edu>