

# DACC Assessment Newsletter-- Fall 2017

## DACC Program and Department Assessment of Student Learning Successes: 2016-2017

Department chairs and program directors submit assessment reports each September. This year the assessment reports were, as in past years, thoughtful and reflective. All program assessment reports submitted demonstrated how assessment data can be used to improve in student learning – which is cause for celebration. Assessment is all about improvement – and sometimes that means continuing on a certain path and sometimes it means changing or shifting direction. Each of DACC's programs takes this responsibility seriously. A few accomplishments based on assessment projects are highlighted in this newsletter to communicate to the campus community the results of assessment efforts here at DACC.

### Architecture and Construction Department

The Architecture and Construction Department, under the leadership of Mr. Chipper Moore, has begun soliciting student feedback during supervisor classroom observation. The information collected has helped faculty in this department make adjustments during the semester – not just at the end of the semester. The goal of this initiative is to improve student learning and increase retention. Congrats to Chipper for taking the lead in developing a tool to gather feedback and then using the results to facilitate conversations with faculty!

### Biology

Biology faculty under the leadership of Dr. Ratna Pankayatselvan developed and implemented three specific activities in BIOL 111 to help students better understand and apply course concepts. Results of the use of the three activities were observed in final exam data – and indicate that the activities improved student learning. The data below provide evidence of improvement from fall 2016 to spring 2017. Congrats biology faculty.

Question	Fall 2016		Spring 2017	
	Exam 1	Final Exam	Exam 1	Final Exam
1	53	63	70	71
2	68	69	88	88
3	55	80	92	92
Average	59	71	83	84

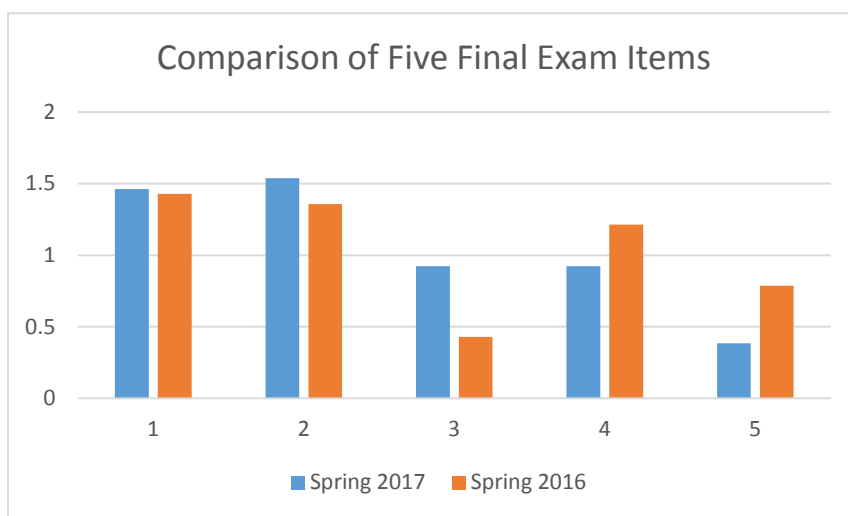
### Chemistry

Chemistry faculty under the leadership of Dr. Ratna Pankayatselvan developed and implemented a peer-learning and hands-on project in CHEM 110 to strengthen students' understanding of specific course concepts. Data were gathered to assess the effectiveness of the intervention. Results indicate an increase in understanding for the topics listed below when taught and reinforced in team activities. Nicely done!

	Traditional Techniques	Team Activities	% Increase/Decrease
Density	42	73	74%
Half-Life	70	95	36%
Ionic Formulas	52	61	17%
Polar/Nonpolar Cmpds	66	80	21%

## Developmental Math

The Math Department assessment report submitted by Dr. Rita Gonzalez and Dr. German Moreno demonstrates that results from assessment projects sometimes indicate that an intervention needs revising or tweaking. This result is every bit as important and useful and finding out that an intervention can be continued as is to improve student learning. In the chart below, data from spring 2016 and spring 2017 compare the results for five final exam questions – pre and post intervention. The results are clearly mixed, suggesting an examination and possible revision of the interventions employed. Congrats to the math department for making an important discovery through assessment of student learning that they can use to inform their next steps!



## Emergency Medical Services

The EMS Program under the leadership of Ms. Joyce Bradley focused last year on improving students' ability to provide a comprehensive written patient care report. Students were required to build a portfolio that included a patient care report (PCR). The PCR was evaluated via a rubric developed by the EMS faculty. The intervention showed positive results, as seen in the chart below, and analysis of the data indicate that the change to the curriculum should be continued. It's encouraging to see how revising curriculum as a result of assessment can lead to improvement in student learning!

Course	# of PCR Submitted	# PRC At or Above Standard	# PCR Below Standard	Percentage Passing
OEEM 120L. D01	54	46	8	86
OEEM 120L. D02	54	48	7	89
OEEM 120L. D03	48	37	11	78
OEEM 150L. D01	48	46	2	96

## Radiologic Technology

The Radiologic Technology Program under the leadership of Ms. Annja Cox, collected data to better understand if TEAS scores (Test of Essential Academic Skills Assessment) could be used to help select students for the program who would be successful. The data collected indicate that the answer is complicated; however, through thoughtful analysis, program faculty have decided to continue to use the TEAS exam as one part of the selection process. Assessment results are not always black and white and often require that program faculty make the best possible decision based on the data. Congrats for investigating how to use data to predict student success!

## Diagnostic Medical Sonography

Faculty in this allied health program under the leadership of Ms. Darla Matthew, used case studies in all clinical internship courses classes to improve critical thinking skills in students. Results were positive:

- All students scored higher than 85% on the final Sonographic Case Analysis in DMS 126
- Six students completed the final sonographic case analysis; the average score was 95.8%
- Three students scored 100%; one student scored 96%; one student scored 92%; one student scored 86.7%

Program faculty noted in their analysis that the category that scored the lowest was "Previous Exam/Related Imaging" (3.8/5.0) and "Laboratory Data" (4.2/5). If the case study did not have "prior exams/related imaging" or "laboratory data" provided, students were required to speculate as to how this information would have helped support the diagnosis/findings. These two categories are of particular importance in critical thinking. The program will continue to implement the sonographic case analysis for students in the clinical internship courses. Nicely done!

## Culinary Arts/Hospitality and Tourism

Under the leadership of Dr. Kim Seifert, professionalism, communication, human relation skills and technology skills were among the student learning outcomes assessed in the Culinary Arts and Hospitality programs. Data were collected in three courses (HOST 207, HOST 208, and CHEF 235), and an aggregate score was reported.

Competency scores (aggregated) FA16/SP17 n=69

- Professionalism 78% 82% 80%
- Communication 95% 81% 73% 83%
- Human Relations skills ---- 89% ---- 89%
- Technology Skills 77% 82% 76% 78%

The program reported the following in the analysis section of the report:

Technology aspects of the Customer Service training revolve around utilizing technology (cell phone, computers, etc.) as part of the interactions between organizational representatives and the customer. When the course is taught again, role-playing exercises will be utilized to teach more appropriate responses to customer inquiries and questions. Communication in the Culinary Arts industry takes on two elements- peer and customer. Students in the CHEF 235 course will be coached in their application of positive communication techniques when dealing with each type of communication.

This is the kind of thoughtful analysis in which many of our departments/programs engage to improve student learning.

## HVAC

HVAC program faculty under the leadership of Ms. Terry Mount and Mr. Edward Lopez asked important research questions as part of their assessment efforts:

- Can students in the program accurately demonstrate the proper procedures for wiring a series and parallel system diagram with a step down transformer on the lab trainer?
- Can the student accurately demonstrate the identification of electrical control components?

By collecting data using a rubric, program faculty discovered that students need additional help with identification of electrical system components and will receive additional handouts and classroom lectures on this topic. Discoveries like this one can only happen as the result of meaningful assessment practices. Congrats to a program that has taken assessment of student learning seriously for several years!

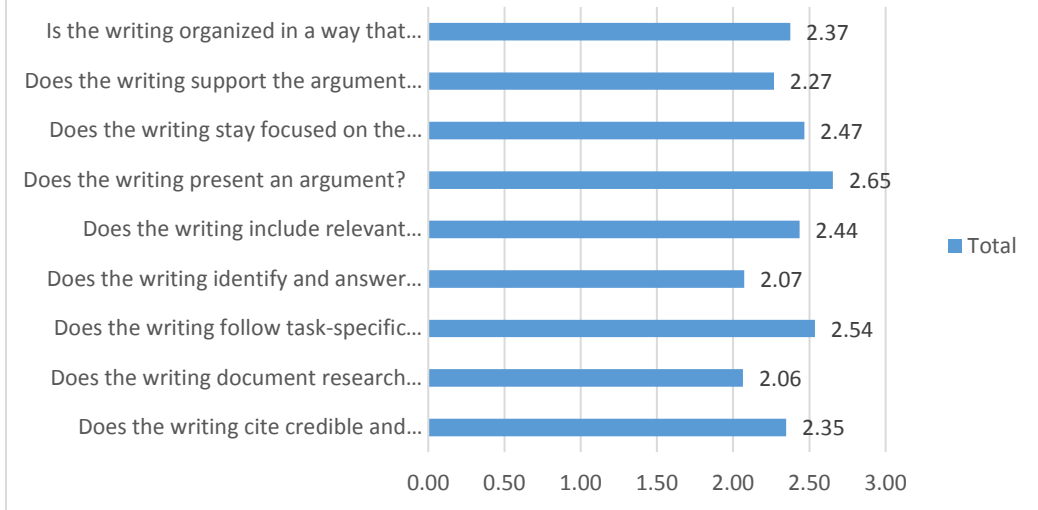
## Welding

The Welding Program under the leadership of Ms. Terry Mount and Mr. David Twitty collects data that compare all lab competencies for all sections of WELD courses (those taught by full-time faculty and those taught by part-time faculty) that require demonstrations of competencies. Data collected systematically show that average scores are consistently above 90%. Areas of concern are duly noted on excel spreadsheets, which help guide instructors as to which competencies they need to give extra attention. If you are interested in seeing how David Twitty uses Excel to collect large amounts of data over time, please email him. It's quite impressive! And very useful.

## English

The English program under the leadership of Ms. Michelle Guzman-Armijo continues to study why students struggle with two specific student learning outcomes: identifying and answering alternative points of view and documenting sources. A series of interventions have been employed to address these challenging outcomes and English faculty stay committed to trying various interventions to improve student learning. Longitudinal data help this program make decisions about where to focus efforts to make the most meaningful changes.

### Fall 2016 ENGL 111 Assessment Data 38 sections



Thanks to all department chairs, program directors, and program faculty for taking assessment of student learning seriously and recognizing assessment is most effective when approached as action research.