

# Section 1 and 3 - Analysis of Unit PIE & Updates on Goals

## PIE - Technology & Health Division Manager

**2018-19**

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**1. Summary of Notable Achievements:** This year, there continues to be many reports of student and division achievements.

Last year, the Chancellor's office awarded Strong Workforce Stars as a new recognition for Career Technical Education programs whose graduates have shown significant achievement in one or all of the following areas:

1. At least 70% of students attained regional living wage;
2. Students experienced an increase in income of 50% or more; and/or
3. At least 90% of students secured employment in their field of study.

Our programs (AD, ADJU, AERO, AIRM, AIRT, ARCH, ELEC, FIRE, MENT, MFG, RAD, and RESD) received several of those awards. Additionally, HVAC, NURS, and Paramedic received Gold Awards. Tech & Health was the only Division to be Gold Winners!

Other Academic program achievements include:

1. AERO: Unmanned Aircraft Systems (Drones, UAS) Courses approved and Aeronautics taught the first drone classes in Fall 2018. Aeronautics is ranked three on the number of degrees awarded at Mt. SAC.
2. AIRC: The department is involved in marketing strategies for the BAS courses and participated in a video promotion through Doing What Matters. This video was added to the AIRC home page and includes Mt. SAC faculty in interviews.
3. RESD: For the 5th consecutive year, the program was awarded the Distinguished RRT, Credentialing Success Award from CoARC (Commission on Accreditation for Respiratory Care).
4. NURS: The program graduates continue to exhibit above average NCLEX passing scores. The annual pass rate for 2017/2018 was 94.53% The first quarter NCLEX results for 2019 were 98.00 pass rate. The nursing program had a very successful BRN visit in Spring 2019 with only two recommendations and zero non-compliance ratings.
5. RAD: Continued refinement and growth of the department's Mammography Certificate Program. Final development of the RAD Tech program's online application system was completed. The online system improved operational efficiency and effectiveness.
6. ADJU: Increased online course offerings from 2 to 10 courses. Students may now obtain the Administration of Justice Transfer degree/AS-T completely online. Successfully completed dual enrollment offering for Fall 2018 with Bonita Unified School District.
7. PSP: The Public Safety Program department continues to have an agreement with Southern Illinois University to offer a Bachelor's degree in Public Safety Management with specializations in Fire Service Management, Emergency Medical Services, or Emergency Management Administration, which benefit FIRE, ADJU and EMS. Fire Technology Program has successfully implemented online course offerings. Fire Technology is participating in the high school dual enrollment program teaching FIRE 1 in three local high schools. Modified the Paramedic curriculum from 6 individual courses to 3 Core Content courses. This allows curriculum delivery to be best suited for student retention, learning, and success.
8. ARCH/MFG/IDE: Nineteen (19) student transfers in ARCH to CalPoly Pomona, Cal Poly SLO, UC Berkeley, UCLA, Pratt Institute, and SCI Arc. Twenty-eight (28) MFG 220 students passed the SolidWorks industry certification (CSWA) exam and 9 passed the higher level CSWP exam.
9. ELEC/CNET: The Electronics department is actively collaborating with the Continuing Education division's short-term vocational training organization to bring this course to students much faster than if it had to be offered through the credit side of the institution.
10. Mental Health: Eleven (11) Psychiatric Technician Program students won a total of 19 medals (12 gold, 6 silver, 1 bronze) at the Health Occupations Students of America (HOSA) 2019 State Leadership Conferenc

11. WELD: Maintained a significant pass rate for students completing both written and practical welding certifications. Three female Welding students graduated with Associates Degrees in June 2018 and all three are employed! And also of note, one of these students is working on the construction of the new Hilmer Lodge Stadium here at Mt. SAC.

12. TERC: The Office of RIE team has concluded that the results demonstrate a clear relationship between TERC use and increased degree of awards. The trend for certificates is less strong, though there is a consistent pattern indicating that TERC students earn certificates at slightly higher rates than those who do not attend TERC.

13. HCRC: Continue to increase the number of students who utilize the HCRC (Fall 2017 - Hours 3,800, Students: 1,688; Fall 2018 - Hours: 4,890, Student: 1,736).

**Closing the Loop - Analysis of Progress on College Goals:** During the 2018-19 year, the departments in the Tech and Health Division continued their commitment to using our six clearly articulated goals to drive division activities and assessing our progress on those goals through the use of multiple data sources. Some of these results are gathered from the individual Unit PIEs and other results are from the Fall Student Survey and the Spring Alumni Survey. These surveys are sent out every two years.

The results allowed us to assess our progress on our goals across multiple departments in Tech & Health:

A. Drawing New Students to Our Programs through both In-reach and Outreach activities:

1. In-reach:

a. One way our Division draws students into our programs is by In-Reach activities such as collaborating with Continuing Education. We have several pathways from Continuing Ed into our credit programs. One example is the EMT program, which is now housed in Continuing Ed. Students who receive their EMT license apply for enrollment to our Paramedic and Fire programs. Another example is the Certified Nursing Assistant program in Continuing Ed. These students often express interest in our RN program. There will also be a new pathway to the RN program when Continuing Ed begins the Licensed Vocational Nursing (LVN) program.

2. Outreach:

a. Health Science Campus Visit from high schools. The students visit the following departments: Nursing, Psychiatric Tech, Respiratory Therapy, Radiology Tech, EMT/Paramedic, CNA/Home Health Aide through Continuing Ed. Some of the schools served are Walnut High, Upland High, Los Altos High, Covina High, San Gabriel High, Wilson High, Palomares Academy, Gladstone High, Bassett High, Diamond Ranch High, Baldwin Park High, and Pomona Adult Ed.

b. Some other Outreach activities are: Welding Campus visit for Tri-Community Adult Ed (Covina District High School student served); Public Safety Campus visits for Fire, EMT, Paramedic, Law Enforcement (Walnut High School served).

c. T&H Division also has many courses which have articulations with high schools. Some of these courses are mirrored with Continuing Ed. (see attachment)

B. Providing Our Students with Industry-Valued Skills:

1. HCRC: Continue to work with the five health programs (Credit and Non-credit) to determine their students needs and prepare them for the workforce.

2. Work Experience: Our work toward achieving the goal of "Providing a Clear Path to Employment" is also revealed in our Work Experience opportunities for Technology & Health students.

a. A total of 154 students placed in 35 Occupational Work Experience (WE) sites. Four Tech & Health Work Experience students were offered jobs across AD, FIRE, and ADJU. This is an enrollment decrease from the 174 students in 2017-18, which may be linked to the change in program requirements for Alcohol and Drug program that cancelled AD 13 & 14 and replaced it with AD 82, as well as antiquated tracking and processes methods. All specialists and the coordinator manually track and record all WE data using Google sheets and Excel. There is no CMS platform in place for Work Experience program to assist with recruiting and processing.

b. The Coordinator, Experiential Learning also facilitated:

1. Prepped students for the Annual AIRC Speed Interview with industry partners.

2. LA County Fire & LA County Sheriff monthly recruitment sessions during the Spring semester. Students were able to receive advice and direction regarding the hiring process.

3. Resume, interview, and professionalism workshops

4. Mock interviews.

5. Coordinated classroom visits from employer

6. Coordinated and offered "Tell Your Story Workshop" for AIRC students

C. Providing Our Students with Clear Paths to Employment or Transfer:

1. Bachelor University Centers and Articulation:

a. Tech & Health has multiple Bachelor Degrees: Aviation Management, Nursing, Criminology, Health Care Management

for Radiology and Respiratory students, Public Safety Management for EMS and Fire students, and Radiology Education and Management for Radiology students.

b. We also have articulation agreements for our Architecture and ELEC programs at Cal Poly Pomona. Cal Poly San Luis Obispo. 19 students transfers in Arch to CalPoly Pomona, Cal Poly SLO, UC Berkeley, UCLA, Pratt Institute, and SCI Arc.

2. Paths to Employment: Many of our graduates from our programs have received jobs right after completion. Some program grads who get hired are: AIRC/HVAC, Welding, AERO, AIRM, Nursing, Paramedic, Psych Tech. Our Welding students have been hired as apprentices in the Local 433 Ironworkers Union, the UA 250 Steamfitters, The Sheetmetal Workers Union, The Glaziers' Union and the Elevator Mechanics' Union.

Although not all programs send out Grad surveys, we are assured by the most recent Mt SAC Alumni Survey that 68.3% reported securing a job that is closely related to their program of study.

CTE Current Student Survey Results from Fall 2018:

The survey results allowed us to assess our progress on 3 goals across multiple departments in Tech & Health:

A. Drawing New Students to Our Programs through both In-reach and Outreach activities:

1. Friend or Relative was the number one reason students chose Mt. SAC, with the result of 35.44%; the second at 33.05% with the combined responses of General Internet Search & the Mt. SAC Catalog (this was a drop from 44.82% in 2017, which might mean that we need to work on improving our web pages).

2. Mt. SAC or College Career Fair events at their high schools or at Mt. SAC: 16.88% (drop from 17.87%) This indicates the need to increase our Outreach to high schools.

B. Providing Our Students with Industry-Valued Skills

1. Current students satisfied or very satisfied with the education and training received at Mt. SAC = 93.69% (91.4% in Fall 2017) and 41.48% indicated that their current job is in a similar field as their coursework and training.

2. The last Alumni Survey provided additional validation as 92.3% of respondents were satisfied with their programs of study at Mt. SAC and 68.3% reported securing a job that is closely related to their program of study.

C. Providing Our Students with Clear Paths to Employment or Transfer

1. Students were asked to indicate their interest in the following Bachelor's Degrees offered at Mt. SAC. Tech & Health had two of the top three, with Aviation Management (So. Illinois University) at 20% and Criminology (Mt. Saint Mary's University) at 14.91%. The bachelor program with the highest percentage of interest was Business Administration through University of La Verne at 62.08%. This totals to 96.99% of Current students respondents were interested in BS degrees currently offered on campus!

2. In the last Alumni survey, 50% (43% in 2016) of graduates reported they had transferred to a university.  
a. This affirms our assumptions that the gap between the traditional "transfer" student and "CTE" student is narrowing.  
b. More and more CTE students seem to be realizing that a earning a Bachelor's degree could be beneficial in their future success.  
c. This number is also a good indicator that our focus on University "Fast Tracks" and bringing more University Centers onto our campus is appropriate.

**Tracking Conditions and Trends: a. External Conditions Analysis:** Many of the External Conditions have not changed from last year. In general, external conditions impacting programs in Tech and Health include industry changes, accreditation mandates, and economic growth which has prompted increased hiring in many industries. Specific challenges include:

- Establishing and maintaining clinical sites for our Nursing, Allied Health, and EMS programs.
- Demand for bachelor-prepared health-care providers has challenged the health program graduates who are seeking employment.
- Industry demand of a broader range of skills in its entry-level employees.
- Technological advances in the industry require curriculum changes, purchase of industry standard equipment, and professional development of faculty
- The need to infuse OSHA standard safety training for classified staff serving in programs
- Challenges in hiring qualified faculty and classified staff in some of our specialized CTE programs.

**Tracking Conditions and Trends: b. Internal Conditions Analysis:** The Internal conditions and challenges are similar in many of the Unit Pies.

- Industry need prompts program growth, which results in need for more support of resources, staff, and faculty.
- Industry change prompts program improvement and this results in need for new equipment/upgrade, space to house it in, and professional development for faculty. (Example: Faculty in the AIRC department need to participate in significant training and professional development to learn and infuse Variable Refrigerant Volume (VRV) technology and VRV systems into

the classroom and the curriculum.)

- The increase in enrollment growth for the EMS or FIRE programs, requires the increase in professional experts in the lab portion of class. This could be costly.
- Additionally, many improvements are still needed in Building 28 to minimally meet standards of maintaining an environment conducive to teaching. (Example: many of our AV equipment are old, but the presence of asbestos makes upgrades very costly.) The Instruction Team is now in the process of collecting information regarding what AV equipment the different divisions need to better serve our students.

**Tracking Conditions and Trends: c. Program Planning Dialogue:** In our College's Integrated Planning and Assessment Data Report captured the following data:

A. Retention rates of our students. Over the 17-18 and 18-19 years, our Division Retention Rates across all of our programs have been 91.6 - 91.7%. These consistent positive numbers could be attributed to efficient scheduling, embedded tutors and supplemental instructors, and the increased student usage of our resource centers (TERC [Spring 2018=4212 student visits; Spring 2019=4560 student visits] and HCRC [Fall 2017=1688 student visits; Fall 2018=1736 student visits]) and the cohort-type approach taken by ARCH & HVAC (coreqs and sequential pre-reqs).

B. Over the last 3 academic years, our Certificate and Degree Awards have increased from 778 (15-16), 851 (16-17), and 907 (17-18). Aeronautics is ranked three on the number of degrees awarded at Mt. SAC. Some of our programs have great enrollment numbers, but have low degree and cert numbers. Many of these type of students are Skill Builders and/or "job-out."

**Tracking Conditions and Trends: d. Critical Decisions Analysis:** Critical Decisions Analysis:

A. The moving of the EMT courses to Non-Credit Adult Education was completed in Summer 2018. This will be the first stage of a Pathway crossing to the credit side, where students will have the option to pursue a traditional path or a future fast track to Firefighter/Paramedic certification. Our dedicated counselors have been invaluable in this transition and will continue to be needed when the fast-track program is completed.

B. Psych Tech is now required by facilities for all their instructors to be trained in Certified Assault Response (CPI). All students attending the facilities must be taught by a CPI Instructor before going to the clinical site. CPI certification was requested in their 2017-2018 PIE and they were awarded ongoing funds, which will cover the amount for two faculty members to attend certification training and following recertification. The full-time faculty members were also able to attend the 2017 Statewide CAPTE conference for training of best practice and trends in their field.

C. The AIRC department developed a Fast Track Program to give students the opportunity to finish the Residential HVAC Certificate within one year. They have been able to hire a new tenure track instructor this year! There is still a need for additional adjunct faculty in order to grow the programs.

D. RAD maintained slightly reduced cohort size at 36 due to employment demand and will continue to adjust up or down, as needed.

E. All Allied Health programs are now up and running with Online Application Processes!

F. RESD: An increasing number of students attempt to work full-time while in the program, which affects their academic success. Students need counseling on how to apply for financial aid and scholarships.

G. NURS is making a decision to become ACEN-accredited. They just completed their BRN 5-Year Review and have received accreditation from the BRN for another 5 years. The ACEN accreditation will be additional to the BRN accreditation and will be extra work for the department; however, needed for graduates to be able to work in a Veterans Affairs facility. They have revised their curriculum with the new QSEN competencies, which was recommended by the BRN at the 2015 program accreditation site visit.

**Tracking Conditions and Trends: e. Progress on Outcomes Analysis:** The Overall Summary for Course Outcomes by Assessment for Tech & Health: (Info from Mt. SAC PIE site)

# of Assessment Units Reported: 15

# of Assessment Units with Course Outcomes: 15

Assessment Units Engaged in Ongoing Assessment of Course Outcomes: 100%

There are 271 courses in the selected units

All 271 courses have been assessed in the summary of data status selected= 100%

**Analysis of Curriculum Currency:** The Division now utilizes a server for monthly tracking of all department submissions of Curriculum and SLOs. In the last semester since this tracking method has been employed, 100% of DCs have participated in the review of their curriculum and SLOs. We have some curriculum that is past due for the 4-year review and the faculty is encouraged to complete them. The Associate Dean conducts a monthly review of Curriculum currency remotely and gives a status report at the Division Chair Meeting.

**Analysis of Division's Plans, Activities, and Resources:** Tech and Health Division continues to use six clearly articulated goals to drive division and department activities. We have assessed our progress on those goals through the use of multiple data sources, including the Current Student Survey and Alumni survey. The data indicates progress toward goals but it also indicates

the need for increased web presence, promotion of Bachelors' opportunities, enrollment improvement in some courses, increased completion of program certifications, and increased funding for professional development.