FIRE TECHNOLOGY

CURRICULUM AND TEACHING DESIGN

Curriculum and Teaching Design analyzes currency of modalities, articulation, and industry needs. It includes content review, currency and relevance, accessibility, and equitable practices. Sample activities include the following:

   Possible topics:
   - Review courses and programs through an equity lens to assess access and success.
   - Review prerequisites, corequisites, and advisories, and limitations on enrollment, modality, articulation and transfer, and units and time to completion. Is there disproportionate impact within certain demographic groups?
   - Assess teaching practices, equipment, supplies, and materials, and technology (like homework, syllabus, text, videos, classroom technology, etc.)
   - Assess and integrate program learning outcomes (PLO).

1. **What data were analyzed and what were the main conclusions?**

   The data that was used to populate this review was taken from the college's toolbox of data via the Allan Hancock College and California Community College websites.

   FIRE TECHNOLOGY

   The "Fire Technology" Program Review is a representation of six distinct areas of study under the topic. The following programs all fall under the umbrella of Fire Technology.

   1. Fire Technology Associates Degree and Certificate Program
   2. Wildland Fire Technology Associates Degree and Certificate Program
   3. State Certified Firefighter I Academy (CSFM)
   4. Firefighter Internships (CWE)
   5. California State Fire Marshal In-Service Training (CSFM)
   6. Fire Department Instructional Service Agreements (ISA)

   SUCCUESS RATE

   The Fire Technology Program continues to enjoy a high success rate in almost all its course offerings. This is due in part to a very motivated student base. Generally, once a student starts down the road to a Fire Service Career they are embraced and supported with a high expectation by their instructors which helps provide a sense of pride and accomplishment in what they are striving for as a career. They also become a part of a highly motivated cohort of students who are all striving for a similar goal. The high expectation and rigor live in several dimensions across the Fire Technology Program.

After the 2021-2022 Academic year, the Fire Technology Program posted an overall success rate of 86% for its student base. This percentage is in-line with a trend that dates back to the 2017-2018 Academic year where a program high 88% success rate was achieved.

Associate degree and Certificate Programs: The Fire Technology Program offers two degree and/or certificate programs. First students can receive an Associates of Science Degree or Certificate of Accomplishment in Fire Technology after completing 33 units in the major. Of the 33 required units 18 of them come from the 6 core courses as prescribed by the National Fire Academy and FESHE Standards.

The second degree or certificate opportunity provided by the Fire Technology program is in Wildland Firefighting. Students can receive an Associates of Science Degree or Certificate Accomplishment in Wildland Fire Technology after completing 30 units in the major. Of the 30 required units 15 of them come from the 5 core courses.

The Fire Technology Program has been working to bring into its portfolio an additional Certificate of Accomplishment for in-service Firefighters. This program will be launching soon under the non-credit, Instructional Service Agreement area. Students will attend FTNC 7001-7003 (Firefighter In-Service Training Spring, Summer, Fall) over an academic year. These courses are focused on job related skill development and refresher training. Students who complete all courses will receive a certificate of accomplishment for that academic year.

2. **Based on the data analysis and looking through a lens of equity, what do you perceive as *challenges* with student success or access in your area of focus?**

Once students enter the program as stated above our success and retention rates are high. Our issue lies in recruitment. We continue to have very low enrollment from two ethnicities. The Fire Technology Program must make additional efforts in recruiting Black African Americans as well as Asian Native populations. The college has the same lack of theses populations with just 2% of the college population being Black African American and only 1% Asian Native. I would say a college-wide recruitment effort in these populations would be appropriate.

An addition significant challenge for the Fire Technology Program is the recruitment and retention of females into the program. Of 22 graduating Fire Academy Cadets this Spring only three were female. This is a Fire Service wide problem which has been continually addressed for many years. The Fire Technology program is currently working to open a Women's Fire Camp project in conjunction with the Success Teams initiative. Our hope is to reach women and young girls and introduce them to the profession and the resources and facilities available to help them succeed.

3. **What are your plans for change or *innovation*?**

Through the Success Teams Initiative we are working to develop a Women's Fire Camp program. The goal is to bring women and young girls to the Allan Hancock College Public Safety Training Complex (PSTC) for a two-day immersive program to introduce them to the trade. We are working to have the Camp Councilors be women who are currently professional Firefighters to model for the student the success of women in the Fire Service. In many cases the women that will serve as Camp Councilors will be Allan Hancock College Fire Academy graduates.

The Fire Technology Program is working to further develop the relationship with our local fire services. We are doing this through bringing Instructional Service Agreements (ISA's) to the operational area. This program will be supported by the current college catalog for Fire Technology and Wildland Fire Technology. It will also be supported by three new non-credit courses designed to allow for vocational training and apportionment sharing between the college and its fire service partners. The hope is that this new program will launch in the Fall 23' semester.

We have been working hard to upgrade and improve existing facilities at the PSTC to better serve our students. We have received funding to replace the current roof prop which has reached end of life for safe service. We are also working with the college to establish a new bathroom on the drill ground to service all public safety programs. This is a much-needed facility as we are currently using outhouses for public safety students. This is not sanitary or appropriate. It is our sincere hope that this project will be funded soon to eliminates outhouses from the training center.

4. **How will you *measure* the results of your plans to determine if they are successful?**

The measurement tool used for the proposed plans are as follows:

Women's Fire Camp Project: Use the Fall 23' semester to continue and complete plans or the Camp with a goal of a Summer 24' first offering. We have done a lot of work already to support this effort. We will continue to recruit Part-Time Faculty to support this vital recruitment effort. We will have funding needs to support the start up of this effort. Some will be one-time costs while others will be ongoing.

The Roof Prop Project: This project is well on its way. The bid period will close on May 24th. There will then be a bid awarded with a 90-day construction period. This training prop will then start to service the Fire Academy in the Fall 23' Battalion. It will also service the currently being developed Central Coast Truck Operations Academy for many years to come.

PSTC Bathroom Facility: This project has been on the college's Five-Year Construction plan for many years. It has never risen to the level of being funded. Public Safety Staff including our Dean and Director continue to make the case for the need. It is our hope that we will receive funding soon to support the effort. A bathroom facility was recently built at the college's baseball facility on the main campus. The design has already been approved under DSA. The current request from Public Safety is to simply build the same bathroom facility at the PSTC.

5. **What practices are used in your program's DE courses that support or demonstrate regular and substantive interaction?**

All of the core courses for the Fire Technology and Wildland Fire Technology associates and certificates programs are offered in an asynchronous on line fashion. This has been the case for many years. All Fire Technology DE Faculty are made aware of the required rigor and substantive interaction with students that is required. The following are the current tools used to reach this goal.

1. Course Discussions: All courses provide 4 course discussion sessions over the semester. Students are required to provide an original post and then respond to two of their fellow students' original posts. This is a graded assignment and encourages a classroom community in the online course. Faculty then provide expert feedback on the given topic to provide students with real world experiences to round out the topics discussion.

2. Assignment Grading: Faculty work to interact with students by providing detailed response and comments on all writing assignments and chapter work.

3. Video Conferences: Some courses provide students the opportunity to log in to a live video conference with their professor to discuss fire service-related topics.

4. Fire Service Opportunity Announcements: Faculty will routinely post announcements of fire service-related job opportunities including open recruitment testing processes, job fairs, written test, and interview assistance.

Validation for Program Planning Process: If you have chosen to do the Validation this year, please explain your process and the findings.

1. **Who have you identified to validate your findings? (Could include Guided Pathway Success Teams, Advisory Committee Members, related faculty, industry partners or higher education partners)**

   The Fire Technology program is guided by several outside partners to assist its vision and direction towards maximizing student success.

   Fire Technology Advisory Committee. This group is made up of representatives from across the Santa Barbara County Fire Service agencies. The group generally meets at least once per semester to discuss the current efforts by the college to provide formal education and hands-on training to our students. We also discuss the needs of the local fire services that the college may assist with through various partnerships. A few of the recent topics that are being worked on are, women in the fire service, Regional Truck Operations Academy, Instructional Service Agreements and Drivers Training programs to name a few.

   The Wildland Fire Technology Program also has established an Advisory Committee to help the growth of this new associate degree and Certificate program. This group is currently focused on recruitment to improve its student population.

   The Firefighter Internship Program also has an advisory committee that is made up of the participating fire departments in the program. This group meets each semester to discuss the heath of the program and discuss how the program can get better.

   The Women's Fire Camp project is represented regularly through the guided pathways "Success Teams" initiative. We have established a "Success Team" and are looking forward to making progress this fall with this endeavor.

2. **Are there specific recommendations regarding the core topic responses from the validation team?**

Fire Technology Advisory Committee Recommendations:

1. Develop a Women's Fire Camp to increase female recruitment to the Fire Academy and the local fire services.
2. Develop a Drivers Training Cadre to assist local fire agency training efforts.
3. Develop a Regional Truck Academy to assist local fire agency training efforts.
4. Provide additional offsite training opportunities to the local fire services.
5. Initiate Instructional Service Agreements to improve relationships and outcomes with local fire services.

Wildland Fire Technology Committee Recommendations:

1. Develop an outreach and marketing effort to increase enrollments.
2. Develop in-service training programs to assist local fire agencies.

Firefighter Internship Program Advisory Committee Recommendations:

1. Continue administering the program as is currently being done.
2. Increase number of interns available to fire departments.
3. Reach out to new fire departments for participation in the program.

Based on the narratives for the prompts above, what are some program planning initiatives and resources needed for the upcoming years? Use the tables below to fill in **NEW** resources and planning initiatives. ***This section is only used if there are new planning initiatives and resources requested.***

New Program Planning Initiative	
Title:	*Women's Fire Camp Initiative*
Planning years:	*Academic Year Fall 2023 to Spring 2024*

Description:
As described one of the major barriers for the Fire Technology Program and for the greater Fire Service in California is the recruitment and retention of female Firefighters. The Women's Fire Camp Initiative is an effort to provide the opportunity for women and young girls to be exposed to the Fire Service profession. The Camp will provide students the opportunity to immerse themselves in a two-day program which includes lectures and hands on training. The camp will be staffed with mostly female Firefighters to provide relevant role models.

Resources:
Priority Level: Low   Medium   **High**   **Resource Type: Equipment, Supplies and Materials**   **Quantity:** Various   **Per Item Price:** Various   **Description:** The major needs for the Women's Fire Camp lie in a few areas   1. Equipment: The Fire Technology Program can already support most of the equipment needs for the program. However, there are specific needs that we can not provide for namely gloves, helmets, turnout gear, brush coats, eye protection, saws, etc. This protective equipment is critical to the students feeling that they are dressing the part and enhances their experience and confidence during the program. The request in this area to start is $10,000.00   2. Supplies and Materials: There will be a need to provide adequate supplies and materials to the Women's Fire Camp. Theses needs are critical to the success of the program. Rehab supplies will be needed (water, ice chests, ice). Wood will be a significant need for cutting drills with saws as well as to support forcible entry props. Additional funding will be needed for marketing, camp signage, shirts, wrist bands etc. The request in this area is $20,000.00

New Program Planning Initiative	
Title:	Fire Academy Equipment Needs
Planning years:	Fall 2023-Spring 2024

Description:

The Allan Hancock College Academy has been serving Santa Barbara County and the state of California for over 50 years. The Fire Academy strives to provide the best facilities, props, and equipment in the state. It is the goal to equip our Fire Academy students with industry standard tools and equipment as we prepare them for the workforce. The below requests are in line with that mission.

Resources:

Priority Level: Low   Medium   **High**
Resource Type: **Equipment** Staff Faculty Supplies and Materials
Quantity: 1 Paratech VSK Stabilization Kit
Per Item Price: $10,000   **Price with taxes/shipping, etc:** $11,000.00
Description: Fire Department vehicle stabilization kit. Designed to provide Fire Academy students industry standard equipment experience when responding to vehicle accidents.

Resources:

Priority Level: Low   Medium   **High**
Resource Type: Equipment Staff Faculty **Supplies and Materials**
Quantity: 10
Per Item Price: $250   **Price with taxes/shipping, etc:** $3,000
Description: Wildland Hose Packs used during Wildland Training in the Fire Academy. Theses are heavy duty backpacks designed to carry hose up hills and into fire areas in support of progressive hose-lays.

Resources:

Priority Level: Low   **Medium**   High
Resource Type: Equipment Staff Faculty **Supplies and Materials**
Quantity: 5
Per Item Price: $100   **Price with taxes/shipping, etc:** $600

Description: Heavy duty Velcro straps to bundle hose and allow for transport up stairs in multi-story and high-rise buildings.

Resources:

Priority Level: Low   Medium   **<u>High</u>**
Resource Type: **<u>Equipment</u>** Staff   Faculty   Supplies and Materials
Quantity: 4
Per Item Price: $1000   Price with taxes/shipping, etc: $5,000
Description: Smoke Machines used to provide simulated fire and smoke conditions for Fire Academy students.

Resources:

Priority Level: Low   **<u>Medium</u>**   High
Resource Type: Equipment   Staff   Faculty   **<u>Supplies and Materials</u>**
Quantity: 1
Per Item Price: $14,000   Price with taxes/shipping, etc: $15,000
Description: Rhino Liner to re-surface the flat decks of the Draiger Prop due to normal weathering and water damage.

Resources:

Priority Level: Low   Medium   High
Resource Type: Equipment   Staff   Faculty   **Supplies and Materials**
Quantity: 2
Per Item Price: $4,000   Price with taxes/shipping, etc: $5,000
Description: Two 55 Gallon Drums of fake smoke used with smoke machines to provide a safe smoke environment.

Resources:

Priority Level: Low   Medium   **<u>High</u>**
Resource Type: **<u>Equipment</u>** Staff   Faculty   Supplies and Materials
Quantity: 1
Per Item Price: $2000   Price with taxes/shipping, etc: $2,500
Description: 1 Auto Extrication Hydraulic Tool used to provide students industry standard equipment in the area of auto extrication.

Resources:
Priority Level: Low   Medium   **High**
Resource Type: Equipment   Staff   Faculty   **Supplies and Materials**
Quantity: 60
Per Item Price: $500   **Price with taxes/shipping, etc:** $30,000
Description: Fire resistant tiles used to protect the training Tower Burn areas.

Resources:
Priority Level: Low   **Medium**   High
Resource Type: **Equipment**   Staff   Faculty   Supplies and Materials
Quantity: 2
Per Item Price: $5,000   **Price with taxes/shipping, etc:** $5,500
Description: Firefighting Turnouts for two Fire Academy Part-Time Faculty to be used when providing live fir training to Fire Academy students.

Program Review Signature Page:

_____   _____May 28, 2023_____

Program Review Lead, John Ceceña   Date

_____   _____

Program Dean   Date

_____   _____

Vice President, Academic Affairs   Date

2022-2023 FIRE Tech Program Review Yearly Planning Update and Curriculum and Teaching Design Discussion Topic John Ceceña May 2023

Final Audit Report   2023-07-20

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