Fire Science

2025 ANNUAL REPORT OF PROGRAM DATA



UNIVERSITY of HAWAI'I®
HAWAI'I
COMMUNITY COLLEGE

2025 Annual Report of Program Data
Fire Science

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1. Program or Unit Mission

The Fire Science Program prepares individuals with academic knowledge for entry employment in the Fire Service field as well as meeting the needs of in-service professionals.

Upon completion of this program, students will have the knowledge to prepare for a career with federal, state, and local fire and emergency service agencies, with an emphasis on Structural Fire Fighting, Wildland Fire Suppression, Hazardous Materials Incidents, Fire Prevention and Investigation, Emergency Medical Technician, Fire Management and Administration, and Incident Command System.

After earning the Associate in Science (A.S.) Degree, students have the opportunity to pursue a Bachelor's Degree in Fire Administration from an accredited university through distance learning.

Health and physical requirements vary with different employers in the Fire Service field, so prospective students should seek advice before enrolling.

2. Program Student Learning Outcomes or Unit/Service Outcomes

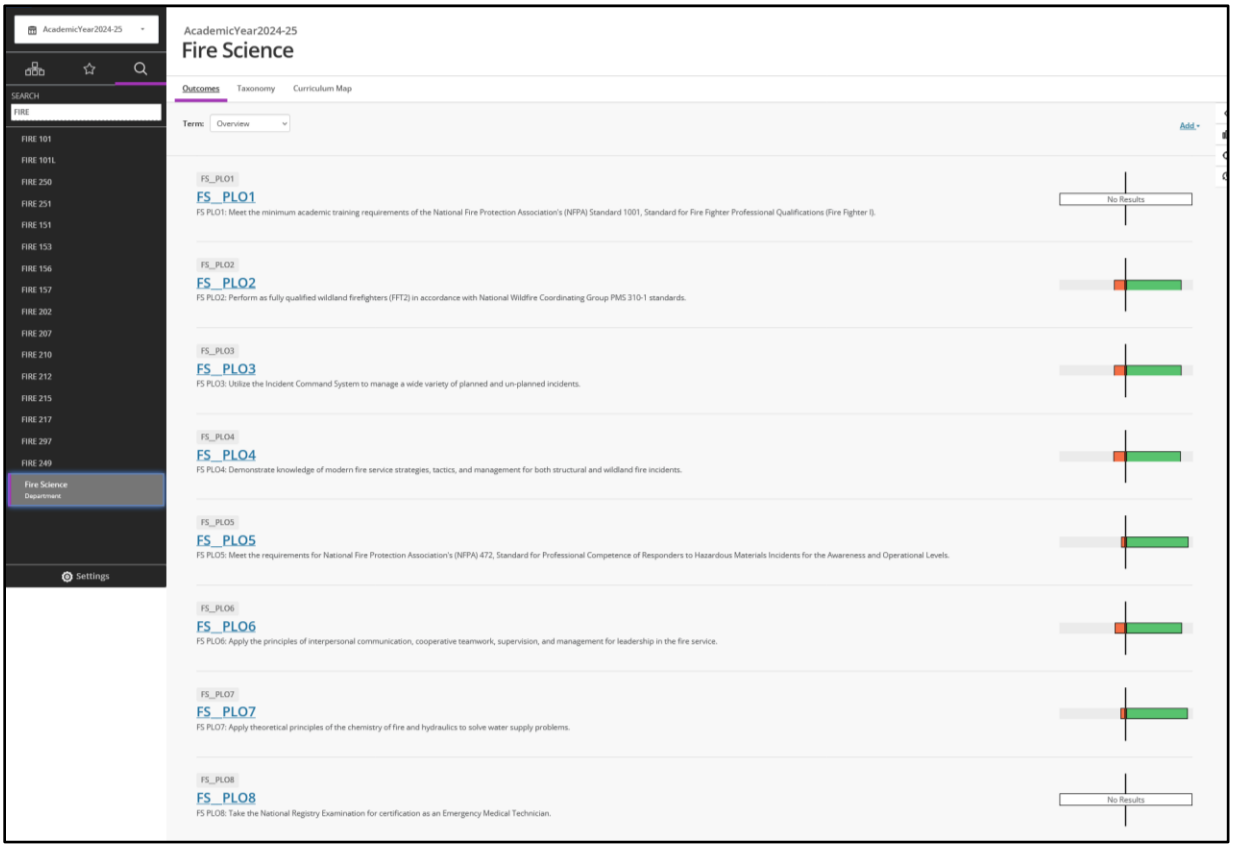
For AY2024-2025, please indicate which program student learning or unit/service outcomes were assessed, the assessment results, and what changes have been or will be made to address the results.

FIRE SCIENCE Program Learning Outcomes	ILO Alignment
PLO 1: Meet the minimum academic training requirements of the National Fire Protection Association's (NFPA) Standard 1001, Standard for Fire Fighter Professional Qualifications (Fire Fighter I).	ILOs 1, 2, 3, 6
PLO 2: Perform as fully qualified wildland firefighters (FFT2) in accordance with National Wildfire Coordinating Group PMS 310-1 standards.	ILOs 1, 2, 3, 6
PLO 3: Utilize the Incident Command System to manage a wide variety of planned and un-planned incidents.	ILOs 1, 2, 3
PLO 4: Demonstrate knowledge of modern fire service strategies, tactics, and management for both structural and wildland fire incidents.	ILOs 1, 2, 3, 6

PLO 5: Meet the requirements for National Fire Protection Association's (NFPA) 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents for the Awareness and Operational Levels.	ILOs 2, 3
PLO 6: Apply the principles of interpersonal communication, cooperative teamwork, supervision, and management for leadership in the fire service.	ILOs 1, 3
PLO 7: Apply theoretical principles of the chemistry of fire and hydraulics to solve water supply problems.	ILO 2

In AY2024-2025, all FIRE PLOs were assessed except PLO #1 and #8. PLOs #2, 3, 4, 5, 6, and 7 were assessed by students' achievements in ***Fire 153*** *Advanced Wildland Firefighting,* ***Fire 207*** *Hazardous Materials Awareness/Operations,* and ***Fire 210*** *Fire Administration.* Students' scores in all courses averaged above 82% meeting or exceeding standards. The graph below shows the details for all PLOs assessed.

No changes in instruction or curriculum are planned at this time.



Red = Does not Meet // Orange = Partly Meets // Light Green = Meets // Dark Green = Exceeds

3. Analysis of the Program/Unit

- The Fire Science program has the highest enrollment of any program at the college with 88 majors.
- The Fire science program has the highest enrollment of Native Hawaiians with 50 students.
- The Fire Science program has a 92% successful completion rate.
- In May 2025 the Fire Science program was awarded 26% of all the AS degrees awarded by the college.
- 24 Pell Recipients were enrolled in the Fire science program.
- The enrollment in Fire Science courses offered at the Palamanui Campus continues to increase.
- We have an Articulation Agreement with Eastern Oregon University which is the only university in the State of Oregon that is Fire and Emergency Services Higher Education (FESHE) approved.
- The Fire Science program exceeded all Perkins Indicator goals.

https://uhcc.hawaii.edu/varpd/index.php?y=2025&c=HAW&t=CTE&p=3234

4. Action Plan

Action Plan from last Comprehensive Program Review 2021.

• Provide students with the educational requirements by the State of Hawai`i for Emergency Medical Technician Licensure. Timeline: Fall 2022
Response: Still in progress

• Increase enrollment in the Pālamanui campus 10% by informing the Kona side communities of the availability of the Fire Science program at Pālamanui. Timeline: Continuous
Response: Enrollment is continuing to increase.

• Address the issue of identified classroom space for Fire Science and EMT classes on the Manono Campus and provide storage space at the Pālamanui Campus for fire equipment. Supplies are currently stored at the Kona Airport Fire Station and the Hualalai Fire AY19-AY21 Hawai'i Community College Comprehensive Program/Unit Review Program or Unit Name: Fire Science 19 Brigade Station (near the Pālamanui Campus). A Matson Container would resolve this issue. Timeline: Fall **2022**
Response*: Although class room space has not be identified, there has been consistency in classroom assignments. Matson donated a 20 ft container which was installed in fall of 2024 and now stores fire and EMT equipment.*

• Increase Successful Completion to 95%. Timeline: Spring 2023
Response; Current Successful Completion rate is 92%.

• Disposition of Fire Engine. Timeline: Fall 2022
Response*: On-going.*

Proposed Action Plan:

The Fire Science program is currently in a Healthy position with high enrollment, high graduation and students finding employment opportunities. The State of Hawai`i considers wildland fire the number 1

threat to the State and has established a Hawaii State Fire Marshall position. The following action items will improve the overall program.

1. With the support of the Administration, HawCC needs approval to add Emergency Medical Technician-Advanced Life Support (ALS) which is 38 hrs. and 1.3 credits to our curriculum. This would allow our students to apply for Licensure at the EMT-Transport level from the Department of Commerce and Consumer Affairs (DCCA).
   Educate more students, empowering them to achieve their goals and contribute to a civil society.
2. Meet with the FS Advisory Board members to ensure the current curriculum meets industry standards and the needs of the community.
   Minimize workforce shortages on Hawaii Island while preparing students for a global future.
3. Explore ways to increase student hands-on experience.
   Educate more students, empowering them to achieve their goals and contribute to a civil society.
4. Promote professional development for lecturers.
   Support the spiritual, cultural, physical, mental, social, emotional and psychological health of the faculty, staff, students, administrators of Hawaii CC and our community.
5. Open a discussion with the Administration on moving the Fire Science program back to Public Safety. This would align the college with how the Fire Service serves the community.
   Meet Hawaii Island's workforce needs of today and tomorrow.

5. Resource Implications
Special Resource Requests not included in your operating "B" budget

☐ **I am NOT requesting additional resources for my program/unit.**
☐ **I AM requesting additional resource(s) for my program/unit.**
Total number of items being requested: _____1_____(4 items max.)

- ✔ **Item Description: Equipment detailed in Fire Equipment FS 2025: https://docs.google.com/document/d/1y6Bo-QTJMG5lcu3mAPUB2QB9r3z4B0Lngpe6prSHyfo/edit?usp=sharing**

- ✔ **Justification: Equipment will provide students with hands-on experience aligned with Action Item 3.**

ALLOWED CATEGORIES	**Category-Specific Information Needed**			
Equipment	Estimated Date Needed	Quantity / Number of Units; Cost per Unit	Total Cost (with S&H, tax)	On Inventory List (Y/N); Decal #, Reason replacing

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