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Docket Item:

Community College Approval: Lane Community College, Associate of Applied Science in Aviation Unmanned Aircraft Systems within 49.0101 Aeronautics/Aviation/Aerospace Science and Technology, General.

Summary:

Lane Community College proposes a new Associate of Applied Science in Aviation Unmanned Aircraft Systems. Higher Education Coordinating Commission (HECC) staff completed a review of the proposed program. After analysis, HECC staff recommends approval of the degree as proposed.

Staff Recommendation:

The HECC recommends the adoption of the following resolution:
RESOLVED, that the Higher Education Coordinating Commission approve the following degree: AAS in Aviation Unmanned Aircraft Systems.

Lane Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to an Associate of Applied Science in Aviation Unmanned Aircraft Systems.

Program Summary

This program provides students with training and ratings/certificates for UAS Operation, UAS Maintenance, and UAS Manufacture to aviation and industry standards. Graduates obtain a Commercial Part 107 UAS Operator License and multiple Institutional CPC certificates aligned to UAS Industry needs.

1. *Describe the need for this program by providing clear evidence.*

   This Aviation UAS AAS replaces the current Unmanned Aerial Systems AAS, adding new industry-applicable and needed courses. This new shift is towards UAS maintenance, an essential and needed area of study and education in the UAS industry. Industry alignment will be ensured by close coordination and advising from the UAS Advisory committee and other Lane Faculty members.

   The Unmanned Aircraft System field and industry is one of the fastest-growing sectors in the world, with explosive growth already occurring globally. There is a significant need to instruct and produce industry professionals with aviation-grade knowledge and experience both operating UAS aircraft, and also performing Aviation UAS Maintenance. This program provides students with a Part 107 FAA Remote Pilot License, multiple CPC Certificates, experience with UAS flight operations, hands-on commercial Unmanned Systems applications with various Industry Partners throughout Oregon, technical training for aviation-grade maintenance, repair, and documentation procedures, and operating theory and software training on industry-standard UAS systems and aircraft. This strongly prepares students with the knowledge and training needed to excel in the UAS workforce and industry, and significantly increases the safety and quality of the UAS workforce.

   Labor Market Analysis

   Attached documents provide valid and reliable data describing the current UAS Pilot industry need projections and industry growth analyses. Unmanned Systems is one of the fastest-growing sectors in aviation, with over a ten-fold increase in pilot and industry needs within the next 5 years and will be globally valued at over $88 billion within 10 years. This represents enormous demand and growth for the UAS industry, and the need for pilots and UAS maintenance-trained technicians.

Wages
Burning Glass Reports, Industry Job Survey
Occupation: UAV Pilots, UAS Operators

National Annual Wages:
10th Percentile - $98,000-$110,000
25th Percentile - $76,000-$98,000
75th Percentile - >=$48,000-$78,000
90th Percentile - >= $40,000-$78,000
Median - $53,007

Oregon Annual Wages: (State of Oregon Employment Department)
10th Percentile - $0.00
25th Percentile - $0.00
75th Percentile - $0.00
90th Percentile - $0.00
Median - $53,007

2. ***Does the community college utilize systemic methods for meaningful and ongoing involvement of the appropriate constituencies?***
The Aviation Unmanned Aircraft Systems Program works with various industry partners from manufacturing technology businesses, UAS aircraft component manufacturing companies, government agencies, private businesses, and community individuals, and UAS aircraft manufacturing companies across the US and Oregon to offer the highest-quality, most-applicable education experience possible. These partnerships and collaborations offer the students practical, hands-on skills development and training which is essential for critical tasks such as remotely operating an Unmanned Aircraft or maintaining the UAS Aircraft Systems. In addition, this allows the college to closely work with the FAA regulatory authority and the industry. The UAS Program is currently approved as a FAA UAS Collegiate Training Initiative (CTI) college, a rating of standardization and industry collaboration across UAS training institutions, coordinated by the FAA. This partnership and membership allows Lane Aviation and the AUAS Program to continue to be the leader in two-year College UAS training across the Pacific Northwest and the country.

Continuous conversations have been held with LCCAA faculty, classified, and leadership staff. Lane Community College's Aviation Academy (LCCAA) has had ongoing discussions with advisory committees, industry partners, and government agencies.

LCCAA's UAS Technology Advisory Committee is currently being formed, and regular meetings will be held in the near future. LCCAA UAS Program faculty are in ongoing conversations with current industry partners and FAA representatives about the new degree program, personnel, training, and equipment changes to meet that need, and the importance and industry demands, as well as for this new AUAS Program and the student job outlook.

3. *Is the community college program aligned with appropriate education, workforce development, and economic development programs?*
Student learning outcomes/proficiencies are aligned with industry and Federal Aviation Administration (FAA) regulations. Students receive an FAA Part 107 Commercial UAS Operator License and will be following industry-standardized training on modern, applicable, and aviation-grade and commercial/industrial grade equipment and aircraft.

Students may use transfer credit or receive credit for prior learning. The three primary examples include:

- Transfers: Students may transfer from other institutions or programs and receive credit for similar courses. For example, "AV273, Unmanned Aerial Sys OPS Maintenance" at Central Oregon Community College (COCC) could be used to satisfy Lane's AUAS Program's Data Acquisition and Analysis.

- Industry Certifications: If a student enters the program with industry certifications or ratings, they can receive credit for prior learning and satisfy a number of courses that relate to that specific certificate or rating.

- Previous Flight Training without Certificates or Ratings: If a student enters with prior flight training but no industry certificates or ratings a chief instructor or Director of the program may review the students log books and training information to apply toward LCCAA's AUAS Flight labs.

The Director of LCCAA is continuing to work on alignment with high schools, industry partners, and other 4-year universities, and LCCAA AUAS Program Faculty are in close communication with UAS Industry Partners and the FAA to ensure modern and applicable instruction and tools are utilized within our Program of Study.

4. *Does the community college program lead to student achievement of academic and technical knowledge, skills, and related proficiencies?*
This program represents a powerful and effective training path to becoming a UAS professional for both

UAS Operations and UAS Technical Maintenance and Manufacture. The Aviation UAS Program will prepare students to excel in manufacturing, maintenance and repair, UAS avionics programming and installation, and UAS pilot operations. We are one of the only colleges offering this curriculum in the Pacific Northwest, which will garner significant attention due to our cutting-edge curriculum and industry-essential training. This program leads to student achievement of academic and technical knowledge related to all aspects of UAS operation and maintenance. Graduates of this program receive an FAA UAS Commercial Operator Part 107 License, and a variety of Career Pathway Certificates. Students do not need any prior experience to enter the Aviation UAS Program, which lowers the barrier of entry to this powerful field of study and industry. Equity and inclusivity are at the core of this new UAS Program.

To receive industry certificates and ratings, students must pass multiple FAA written tests and practical hands-on examinations. FAA written tests must be passed with a minimum score of 70%. Course material is in alignment with FAA regulations and aviation industry standards. Program updates and alignment verifications are continuous and greatly dictated by FAA regulations.

Students take lecture classes along with hands-on practical application labs, ensuring critical skills and learning are assessed and trained to aviation standards.

5. ***Does the community college identify and have the resources to develop, implement, and sustain the program?***
   The College is currently offering an Associate of Applied Science (A.A.S) in Unmanned Aerial Systems and will be sunsetting that AAS and shifting to the new Aviation Unmanned Aircraft Systems AAS degree in order to properly align with industry needs and provide effective, applicable and industry-standard instruction. Therefore, the college is able to financially support the new Aviation Unmanned Aircraft Systems AAS Degree.

   The College has a full-time contracted faculty instructor to teach the UAS core classes, and has sufficient lab, classroom, and equipment/tools access and availability to properly offer and teach the AUAS program courses.

   Course Fees Schedule is attached. These fees will accommodate expendable items, safety equipment, and training tools. The Aviation UAS Program will be funded by student tuition generated by enrolled, degree-seeking and non-degree-seeking students.

   Generous support has been offered for certain training equipment from various industry partners and is currently being utilized for instruction. We will continue to partner with the industry to offer quality instruction and standardized training.

Students enrolled in the UAS Program currently cooperate and work with various businesses, governmental agencies, and companies to train with hands-on and industry-relevant UAS Operations, and these partnerships and educational opportunities will continue to be developed and used in the new Aviation Unmanned Aircraft Systems AAS Degree to extend the learning beyond the classroom and into the real world.

Assurances

Lane Community College has met or will meet the four institutional assurances required for program application.

1. *Access.* The college and program will affirmatively provide access, accommodations, flexibility, and additional/supplemental services for special populations and protected classes of students.

2. *Continuous Improvement.* The college has assessment, evaluation, feedback, and continuous improvement processes or systems in place. For the proposed program, there will be opportunities for input from and concerning the instructor(s), students, employers, and other partners/stakeholders. Program need and labor market information will be periodically re-evaluated and changes will be requested as needed.

3. *Adverse impact and detrimental duplication.* The college will follow all current laws, rules, and procedures and has made good faith efforts to avoid or resolve adverse *inter*segmental and *intra*segmental impact and detrimental duplication problems with other relevant programs or institutions.

4. *Program records maintenance and congruence.* The college acknowledges that the records concerning the program title, curriculum, CIP code, credit hours, etc. maintained by the Office are the official records and it is the college's responsibility to keep their records aligned with those of the Office. The college will not make changes to the program without informing and/or receiving approval from the Office.