Science, Technology, Engineering, and Mathematics
Career and Academic Pathways (CAPs)
Program Map: Skills Certificate for Rocketry Level 1 Certification

Total number of units: 5 units **Top Code/Academic Plan: 9500.00** **Updated on 9/30/2021**

Semester 1	Course Code	Course	Units	Notes	Notes for Part-time students
Program Course	EET 124	**Introduction Level 1 Rocketry**	**2**		
Program Course	EGD TEK 101 or EGD TEK 102	**Engineering Graphics with Geometric Dimensioning and Tolerancing or Engineering Graphics with Introduction to GD & T and 2-D CAD**	**3**		Typically offered in a morning session.
		Total Units	**5**		

Degree Path and Requirements:

This map is a suggested term-by-term sequence of courses to complete the program in a recommended time frame. This is an efficient and recommended plan, but actual plans may vary by individual student need. This map cannot replace a meeting with counselors.

Department Advising Notes:

We recommend that students meet with an academic counselor as well as with a career counselor before deciding on which elective courses to take for this degree. Please take note of the prerequisite courses that are requried for the courses in this degree.

Program Description

The primary purpose of this certificate is to teach students to successfully build a level 1 solid fuel rocket. These courses cover the topics of basic definitions and elementary principles such as total impulse, mass flow, specific impulse, the ideal rocket equation, thrust chamber design, nozzle theory, heat transfer, flight performance, propellant chemistry, and propulsion operation in space. A detailed investigation of rocket fundamentals is necessary to acquaint the student with 21st century technology. At the end of this course students over 18 will be ready to launch their rocket and if successful receive a Level 1 certification from NAR (National Association of Rocketry).

Career and Transfer Opportunities

NATIONAL ASSOCIATION OF ROCKETRY: LEVEL 1 HPR CERTIFICATION

The NAR was created in 1957 as an advocate of the model rocketry hobby. Over the past four decades the hobby has grown to encompass rocket motor types and performance unavailable to the modeler at the NAR's inception. In response to this growth the NAR offers a certification process which permits individuals to purchase and use rocket motors whose physical constraints and performance exceed traditional model rocket boundaries. Rocket motors which exceed model rocketry motor definitions and the models that use these motors are collectively referred to as high power rocketry. Certification for high power rocketry consists of three progressive levels:

Level 1 allows the purchase and use of H and I impulse class motors; solid and hybrid. Certain F and G motors may also require Level 1 certification for purchase and use.

Visit the Transfer Center for transfer information, which varies based on transfer college. Make an appointment with a counselor. Students can visit Career and Job Services for career counseling and further exploration.

Youtube Videos

You Belong at East Los Angeles College

Program Map

A suggested sequence of classes to complete a degree, certificate, or program of study. Students should consult an academic counselor for variations to this plan based on part-time or full-time status, transfer plans, pre-requisites needed, etc.

Prerequisite Course

A specific course that must be completed before advancing to the next course.

Check the online catalog at elac.edu for the latest and most accurate information.

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