



CSULB's Degree Completion Programs  
in Mechanical or Electrical Engineering  
Offered in the Antelope Valley

# Program Uniqueness

## ■ Cohort Based

- Fall admission only of junior-level transfer students
  - No general education courses offered
- 25 seats only in ME & EE (total 50 students per year)
- 5 Semesters, 60 to 69 units (depending on pre-req's)
- Specialized group dynamics and leadership cohort workshop
  - Encourages strong teamwork
  - Develops learning community
- Opportunity to engage in extensive engineering projects
- Industry and Government partners in the Greater Antelope Valley ensure a successful program
  - Many instructors drawn from industry
  - Active advisory board

## ■ Independently ABET Accredited



# AV-based Faculty & Staff

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# Accreditations

- **Western Association of Schools and Colleges (WASC)**

- Accredits the campus
- Accredited since 2011



- **Accreditation Board for Engineering and Technology (ABET)**

- Accredits Engineering Degree Programs
  - First accredited in 2015
  - Re-accredited in 2019
    - BSME-AV
    - BSEE-AV



# Admission Criteria (CSU transfer minimums)

- Applicants meeting all the following requirements will be ranked on transfer GPA
  - Minimum overall college GPA of 2.50 or higher
    - all transferable college course work attempted
  - Complete a minimum of 60 transferable semester units by the end of prior Spring term for Fall entrance
  - “C” or better in required prerequisite coursework
    - Calculus III by Spring semester before admission
  - “Golden 3” GE’s by Fall semester during application
    - Speech Com (A1) , Rhetoric and Comp (A2) , Critical thinking waived for engineering majors
- Second Baccalaureate and F-1 Visa students can not be accepted





# Admission Criteria (COE minimums)

- Category B GE's – Engineering Prerequisites
  - Calculus 1, 2, and 3
  - Physics 1 and 2
- 27 units in courses approved to meet CSU General Education (GE) requirements (Assist.org)
  - 6 semester units cat A (written and oral com -3 units in each) (2/3 of “golden 3”)
    - Critical thinking is not required
  - 9 semester units cat C (art-3 units, humanity – 3 units, either – 3 units)
    - 3 units each in Global Issues and U.S. Human Diversity are recommended in this category (CSU Long Beach graduation requirement, check assist.org, General Education/Breadth Agreement)
  - 9 semester units of cat D (US history - 3 units, Const & USA Ideals – 3 units (other 1/3 of “golden 3”), and social sciences – 3 units)
    - Global Issues and U.S. Human Diversity requirements can be met from this category
  - 3 semester units of cat E (self-integration)
    - Intro to engineering at AVC no longer accepted for Cat E



# ME Major Specific Criteria

- 25 units of mathematics and science with a minimum grade of "C" Cat B
  - 5 semester units of general chemistry (CHEM 111A)
- 6 units of engineering fundamentals with a minimum grade of "C"
  - 3 semester units of 3-D engineering design graphics using SolidWorks (MAE 172B)
  - 3 semester units of calculus-based statics (CE 205)
- Other Course that may be accepted
  - 6 semester units consisting of both Differential Equations and Linear Algebra
    - Together replaces Math 370A
  - 3 semester units of computer methods using MATLAB
    - Equivalent to MAE 205 or EE 202
  - 3 semester units of Materials Science for Engineers
    - Equivalent to MAE 322
  - 6 semester units GE Cat G and H



# EE Major Specific Criteria

- 25 units of mathematics and science with a minimum grade of "C"
  - 3 semester units of calculus-based physics III equivalent to CSULB PHYS 254
- 7 units of engineering fundamentals with a minimum grade of "C"
  - 3 semester units of computer programming in C or C++ (CECS 100 or equivalent)
  - 4 semester units of calculus-based circuits course with lab (EE 211/211L)
- Other courses that may be accepted
  - 6 semester units consisting of both Differential Equations and Linear Algebra
    - Together replaces Math 370A
  - 3 semester units of computer methods using MATLAB
    - Equivalent to EE 202
  - 3 semester units of digital logic
    - Equivalent to EE 201
  - 6 semester units GE cat G and H





# Location



## ■ Lancaster University Center (LUC) 45356 Division Street, Lancaster, CA 93535

- 25,000 square-foot facility
- 11 classrooms
- Dedicated mechanical & electrical laboratories
- Interactive TeleVideo classroom linked to CSULB campus
- WiFi access for students
- Free parking



# Typical Junior Year (Cohort 11) Mechanical Engineering

## Incoming Juniors

### Fall Semester 1 (17 Units)

\*MAE 322 Engineering Materials and Materials Processes (3)

MAE 300 Engineering Instrumentation and Measurement (2)

MAE 330 Engineering Thermodynamics I (3)

MAE 373 Mechanics of Deformable Bodies (3)

\*MATH 370A Applied Mathematics I (3)

\*EE 202 Computer Methods in Engineering (3)

\*\*\* GPE (GWAR Placement Exam) in September

\*Transfer equivalents available

### Spring Semester 2 (12 Units)

MAE 272 Introduction to Manufacturing Processes (2)

MAE 371 Analytical Mechanics II (Dynamics) (3)

MAE 333 Fluid Mechanics (3)

CE 336 Fluid Mechanics Laboratory (1)

MAE 305 Numerical Methods in Mechanical and Aerospace Engineering (3)

### Summer Semester (3 Units)

ENGR 310 English Proficiency (3)\*\*\*

\*\*\* Only required for those students who score below 11/18 on GPE



# Typical Junior Year (Cohort 10) Electrical Engineering

## Incoming juniors

### Fall Semester 1 (17 Units)

- \*Math370A Applied Mathematics I (3)
  - \*EE 201 Digital Logic Design (3)
  - \*EE 202 Computer Methods in Engineering (3)
  - EE 350 Energy Conversion Principles (3)
  - EE 380 Probability, Statistics, and Stochastic Modeling (3)
  - \*\*\* GPE (GWAR Placement Exam) – September
- \*Transfer equivalents available

### Spring Semester 2 (13 Units)

- EE 301 Digital System Design (3)
- EE 310 Signals and Systems (3)
- EE 330 Analog Electronic Circuits I (4)
- EE 346 Microprocessor Principles and Applications (3)

### Summer Semester (3 Units)

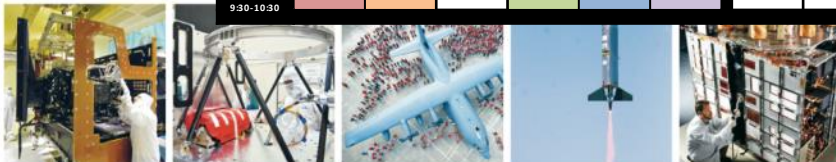
- \*\*\* ENGR 310 Business Communications in Engineering Professions (3)

\*\*\* Only required for those students who score below 11/18 on GPE



# Typical Semester Class Schedule

	Monday						Wednesday						Friday					
	EE 7	ME 7	EE 8	ME 8	EE 9	ME 9	EE 7	ME 7	EE 8	ME 8	EE 9	ME 9	EE 7	ME 7	EE 8	ME 8	EE 9	ME 9
8:00-8:15																		
8:15-8:30																		
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9:45-10:00																		
10:00-10:15																		
10:15-10:30			EE 430 KASSAI 617	MAE 375 620		MAE 172 ORALLA 620				MAE 272 LAB 618			EE 201 KASSAI 617		EE 486 MIRZAE 616		MAE 272 618	MATH 370A TRAN 610
10:30-10:45																		
10:45-11:00																		
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2:45-3:00	ENGR 361 SHELLEY 612	ENGR 361 SHELLEY 612																
3:00-3:15																		
3:15-3:30																		
3:30-3:45			EE 430 KASSAI 617															
3:45-4:00																		
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6:30-6:45																		
6:45-7:00																		
7:00-7:15		CE 406 KIM 614																
7:15-7:30			EE 382 LECTURE 616 LAB 620 ALVARADO															
7:30-7:45																		
7:45-8:00																		
8:00-8:15																		
8:15-8:30																		
8:30-9:30																		
9:30-10:30																		



# Cost

- The AVEP is a self-support program.
  - The entire program is operated based on tuition income and industry support.
  - No fee increase in a decade
- Cost per unit is \$495
- Cost for 3-unit course is \$1,485
- Cost for typical semester (FA/SP) with 12 units is \$5,940
- Total estimate for the 2.5 years with 63 units is \$31,185
  - It is possible to have less than 12 units in the first semester
  - Engr 310 is a 3-unit class offered in summer





## CSULB ANTELOPE VALLEY PROGRAM

- **Guaranteed class availability:** graduate in 2.5 years\*. Cohort provides structure and schedule.
- Small class sizes: 10–25 students
- **Unprecedented industry access:** location enables students to obtain industry internships.
- **Funded by tuition and industry support.** No state support.
- Typical semester (FA/SP) with 12 units: \$5,940 (\$495/unit)
- Total estimated for 2.5 years with 63 units: \$31,185
- Housing: \$15,708; meals: \$5,760 (Total for 2.5 years: **\$53,670**)
- No additional lab fees
- Total cost of program tuition, meals, and housing with a guaranteed 2.5 year graduation date: **\$84,855**

\*Students must pass all classes with a C or better and stay in good standing by paying all fees. All classes needed to complete the degree are offered once per academic year in the appropriate progression to complete the degree in five semesters. The cohort model provides course progression, structure, and schedule.

## AVERAGE CSU CAMPUS PROGRAM

- **No guaranteed class availability:** average graduation rate for transfer students is 4 years\*. More flexible schedule, but class availability varies.
- Large class sizes: 30–40 students
- **Limited access:** little interaction with industry.
- **Funded by taxes and tuition.**
- Typical semester (FA/SP) with more than 6 units: \$3,417
- Total estimated for 2.5 years with 68 units: \$17,085 (\$3,417 for each additional semester)
- Housing and living expenses total for 2.5 years: **\$51,165** (\$81,864 for 4 years)
- Additional lab fees
- Total cost of program tuition, meals, and on-campus housing for 4 years: **\$98,949**

\*Completion rates may vary. The average time for transfer student graduation is 4 years or 8 semesters.



# Financial Aid

- Full-time students (and part time) qualify to apply for financial aid through CSULB
  - Call main campus with specific questions
    - 1-562-985-8403
- Federal Aid programs accepted
  - No CA State Fee Waivers accepted
- Visit:  
<http://www.csulb.edu/depts/enrollment/>



# Applications

- Apply online at [calstate.edu/apply](https://calstate.edu/apply)
- Applications are open October 1, 2020 – Jan 15, 2021
  - Transcript deadline 29 Jan 2021



- First Drop down menu, select CSULB for “campus”
- Second Dropdown menu under “Source”
  - Select “Extended Education”
  - Long Beach Extension, Antelope Valley
- All admission offers are conditional pending confirmation of GE category B course grades (Engineering Prerequisites)

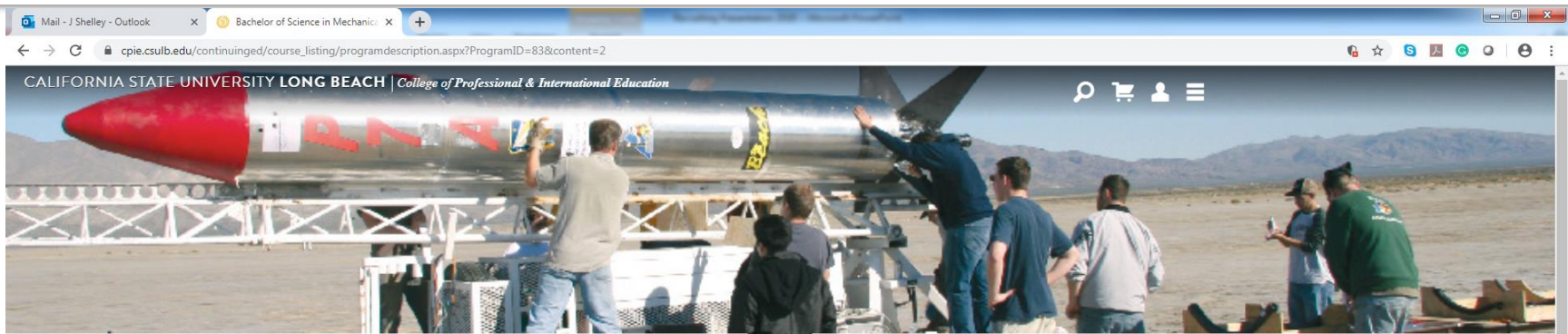
# Application Timeline

- October 1 – Application Window Opened
  - Preferred admissions deadline 1 December 2020
    - Transcript deadline 15 Dec to enrollment services on main campus
    - ETAP applications with UNofficial spring transcript showing spring enrollment due 15 Jan 2021 to [Aubrey.Priest@csulb.edu](mailto:Aubrey.Priest@csulb.edu)
- 15 Jan – Application Window closes
  - Rolling admissions
    - Anticipated offers announced March – early August
  - All admissions offers are conditional
    - Pending Calculus 3 and Physics 2 grade confirmation
      - Send transcript with spring semester grades
- August 6 – Orientation
  - Advising and registration
- August 20 – Cohort Workshop
- August 23 – First Day of Fall Classes



# Program Website

<http://www.cpie.csulb.edu/engineering>



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[How To Apply](#)

[Frequently Asked Questions](#)

[Student Testimonials](#)

[Resources](#)

## Bachelor of Science in Mechanical Engineering - Antelope Valley



**\*The application period for Fall 2020 is now open!**

The Bachelor of Science in Mechanical Engineering - Antelope Valley program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Earn your Bachelor of Science in mechanical engineering within two and a half years through the College of Engineering at CSULB in partnership with CPiE. The Bachelor of Science in Mechanical Engineering - Antelope Valley program is designed for students who are interested in completing their B.S. degree in Mechanical Engineering. Classes are held at the Lancaster University Center (LUC) in the Antelope Valley area, providing unprecedented access to the industry, including internships with local companies and organizations. Participants must have completed their first two years of coursework at a community college or other university.

The Bachelor of Science in Mechanical Engineering - Antelope Valley program is offered as an undergraduate extension program in the College of Engineering. For details about the program,







# QUESTIONS?

Degree Completion Program in  
Mechanical & Electrical Engineering  
Offered in the Antelope Valley

<http://www.cpie.csulb.edu/engineering>

