

NORCO COLLEGE



Norco College
2001 Third Street
Norco, California 92860-2600
(951) 372-7000
www.norcocollege.edu

Norco College
2015-2016 Catalog Addendum



This addendum to the 2015-2016 Norco College Catalog contains changes that offer new educational opportunities for students. These updates were approved after the 2015 Catalog went to press.

Although every effort has been made to ensure accuracy of the information, students and others who use the catalog and addendum should consult with a counselor, dean, department chair or program director for any additions, deletion or changes.

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Electrician

NAS766/NAS766B/NAS766CNCE766

Electrician Apprenticeship

NAS485/NAS485B/NAS485C/NCE485

A five-year apprenticeship program, consisting of fulltime, on the job employment plus related classroom instruction. Completers of this program may qualify for certificate, Associates of Science Degree, and/or a Journey person trade certificate. Students who wish to obtain an Associate in Arts Degree may do so by fulfilling the general graduation requirements in addition to the completion of the apprenticeship courses.

Applicants for Riverside/San Bernardino/ Mono/Inyo counties should be directed to the Riverside and San Bernardino Joint Electrical Apprenticeship Training. Committees, 1855 Business Center Drive, San Bernardino, CA 92408. Telephone: (909) 890-1703.

Certificate Program

Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Apply a working knowledge of math formulas and complex solution methods related to the electrical trades, along with blueprint symbols and drawings of wiring diagrams with common schematic symbols, including troubleshooting of common system faults, detection and repair, while properly applying OSHA construction site safety standards to all practices.
- Properly apply all pertinent National Electric Code (NEC) to all workplace practices involving DC, AC single and poly-phase systems, utilizing proper grounding, bonding, lightning protection, wire sizing, conduit fill, overload protection, layout, connections, installations, troubleshooting, fault isolation, repairs or modifications.
- Demonstrate appropriate leadership and expertise in applying special control and monitoring functions related to layout, installation, testing, and troubleshooting of digital and analog systems involving such ancillary equipment as CATV, CCTV, telephone circuits, Programmable Logic Controllers (PLCs), sensors, actuators, low-voltage and high-voltage, transformation, interfacing, hardware, setup, and programming services needed to comply with all NFPA-70E (NEC) and OSHA regulations for safety and fitness.

Required Courses (35 units)		Units
ELE-400	Introduction to the Electrical Trades and Construction Safety	3.5
ELE-401	Introduction to Electrical Theory, Basic Math Concepts, and the National Electric Code	3.5
ELE-402	Advanced DC Circuit Concepts, Introduction to 3-Phase AC Circuits, Test Equipment, and National Electric Code Applications	3.5
ELE-403	AC Circuit Concepts, Applied Electronics, and National Electric Code Applications	3.5
ELE-404	Digital Logic Circuits, Conductor Characteristics, Applications, and National Electric Code (NEC)	3.5
ELE-405	Electrician Blueprint Reading with Code Applications for National Electrical Code (NEC)	3.5
ELE-406	Grounding Systems, Advanced Blueprints and Specifications, Motor Design and Installation, and National Electric Code	3.5
ELE-407	Motor Control Principles, Generators and Power Supplies, with National Electric Code (NEC)	3.5
ELE-408	Transformer Theory, Leadership, Management, and Test Equipment	3.5
ELE-409	Electrician Specialty Systems	3.5

Associate of Science Degree

The Associate of Science Degree in Electrician Apprenticeship will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

NEW LOCALLY APPROVED CERTIFICATE

3D Mechanical Drafting

NCE863

This certificate includes courses intended to help students qualify for an entry level CAD operator/drafter or help someone, already in industry, to update their skills. Students can expect an entry level position as a CAD operator, mechanical drafter, engineering assistant and engineering technician.

Certificate Program

Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of 3D mechanical modeling so as to be able to capture design intent in a 3D model.
- Map out the most efficient path in 3D model creation.
- Reverse engineer existing parts and recreate them as 3D computer models.

Required Courses (9 units)

		Units
ENE-21	Drafting	3
ENE-42	SolidWorks I	3
ENE-42B	SolidWorks II	3

The above certificate may lead to employment competency, but does not lead to an Associate of Science degree.

CHANGE TO THE MATH EMATICS COMPETENCY REQUIREMENT

Students must demonstrate minimum proficiency in mathematics by successful completion of a mathematics course with a “C” or higher selected from MAT36 (excluding MAT-32) or MAT-53 or the equivalent [CLEP, AP/1B Exams, Credit by Exam, other pathways such as Completion Counts, courses from other colleges/universities, placement above Math 35, or Early Assessment Test (EAP for CSU, MCAP)].