

SAN JOAQUIN DELTA COMMUNITY COLLEGE DISTRICT

Engineering Instructor (Associate Professor)

DESCRIPTION

Under the general supervision of the Division Dean for the Applied Science, Business and Technology Division, teach organized classes in accordance with course descriptions, outlines, and class schedules; to evaluate progress of students; to advise students concerning educational matters; to perform other instructionally related duties as assigned.

DUTIES AND RESPONSIBILITIES

Duties and responsibilities may include, but are not limited to the following:

1. Conduct organized classes at the instructional level to meet the educational requirements stated in the course description and the course information sheets.
2. Conduct related laboratory instruction, including safe handling of materials and equipment as required.
3. Advise and assist students in achieving stated course objectives.
4. Participate in the evaluation of course offerings, including the revision of course descriptions and course outlines.
5. Coordinate with other faculty in the selection of textbooks, audiovisual and other instructional materials.
6. Keep current with new developments and knowledge in technology field of competency.
7. Report to the Division Dean any condition that might jeopardize the health or safety of students or the public.
8. Perform other instructionally related duties as assigned.

MINIMUM QUALIFICATIONS:

- Master's in any field of engineering **OR** Bachelor's in any of the above **AND** Master's in mathematics, physics, computer science, chemistry, or geology **OR** the equivalent.

(NOTE: A Bachelor's in any field of engineering with a professional engineer's license is an alternative qualification for this discipline, pursuant to title 5, section 53410.1.)

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- Demonstrated teaching experience.
- Sensitivity to and demonstrated success teaching in a diverse academic, socioeconomic, cultural, disability, and ethnic environment such as a community college.

DESIRABLE QUALIFICATIONS:

Ability to:

1. Teach at the community college level.
2. Teach dimensioning in accordance with the ASME standards.
3. Teach subjects in areas such as civil, electrical, industrial, or mechanical engineering.
4. Use AutoCAD for preparing two and three dimensional engineering drawings.
5. Operate, demonstrate, and maintain material testing equipment for standard tension, compression, impact, hardness, and torsion tests.
6. Teach students the required steps for designing lighting, plumbing and mechanical systems in accordance with the Uniform Building Codes, ICBO Codes, CBC Codes.
7. Teach basic industrial control systems for process machines (PLC's) using switches, solenoids, and relays.
8. Use a reflected light microscope to examine the microstructure of materials.
9. Use computers for teaching and management of online course information. Familiarity and ability to teach in a distance learning environment.
10. Teach in a technologically rich environment.
11. Teach in a large lecture format.

Knowledge of:

1. Surveying, mapping and site development.
2. Industrial control systems (PLC's)
3. ASME dimensioning standards.
4. AutoCAD for two and three dimensional engineering drawings.
5. Microsoft Windows operating system.
6. Microsoft Word, Excel, and Power Point software
7. Uniform Plumbing Code
8. Uniform Electrical Code
9. Application of physical laws and principles of engineering for the development of machines, materials, instruments, processes and services.