



Job Description

JOB TITLE: Engineering Support Technology Instructor (Specialization in Technical Drafting Applied to Architecture, Civil and Mechanical Disciplines)

LAST REVISED: FEBRUARY 2007

DEFINITION

Under minimum administrative direction of an educational administrator, develop curriculum and provide lecture and laboratory instruction for students in the study of Engineering Support Technology and other related courses, to evaluate students' performance, to coordinate with faculty and other staff regarding support of hardware and software, to assist in the selection of and coordination with adjunct faculty members, to participate in articulation and Tech Prep activities, to coordinate with business and industry partners, to participate in shared governance and other activities in support of the instructional program, and to perform related work as assigned.

JOB CHARACTERISTICS

Incumbent may supervise students and/or other temporary help, as assigned.

EXAMPLES OF FUNCTIONS AND TASKS

Lecture Preparation/ Instruction - ESSENTIAL: Develop syllabi of lecture materials; prepare lesson plans to be used in lectures; coordinate lectures with laboratory assignments; prepare multi-media demonstrations to enhance instructional delivery; integrate the use of the computer throughout the instructional program; prepare handouts and supplemental materials; develop quizzes, tests, and "hands-on" evaluations; evaluate student performance on quizzes, tests, and reports; advise students on matters regarding their academic performance; tabulate scores and assign official grades; review and select learning resources such as textbooks, internet sites, and periodicals determined to be the most useful and appropriate; review and evaluate new instructional material for content, readability, and cost effectiveness; read literature (books, newspapers, periodicals, and other print and non-print materials) to stay current in the field of Engineering Drafting Support Technology. **PERIPHERAL:** Complete instructional materials order forms; review study guides and other supplemental materials for classroom use; maintain appropriate reference materials; develop assignments related to current reference materials in learning resource center; arrange and schedule guest lecturers.

Laboratory Instruction/Supervision - ESSENTIAL: Prepare laboratory instruction for students; research technological data to include in labs; develop quizzes and tests; develop syllabi of lecture materials; prepare lesson plans for use in labs; coordinate lectures with laboratory assignments; prepare multimedia demonstrations to enhance instructional delivery; prepare handouts and other supplementary course materials; test and evaluate classroom/laboratory equipment performance. **PERIPHERAL:** Review study guides and other supplementary course materials.

Student Performance Evaluation -ESSENTIAL: Develop quizzes, examinations, portfolio projects, term papers, homework assignments, projects, and laboratory assignments which fairly evaluate student progress in acquiring knowledge of subject material; monitor student activity during examinations and quizzes; read, evaluate, and grade student responses on examinations, quizzes, and projects; assign, read, and evaluate student homework assignments and projects; tabulate scores and assign official grades; advise students on matters regarding their academic performance; refer students to appropriate student services (e.g. Extended Opportunity Programs and Services [EOPS], the Learning Skills Center, Tutoring Center, Writing Center, etc.) for specialized testing and tutoring.

Curriculum Development- ESSENTIAL: Review and evaluate curriculum to meet student interests and needs within the parameters of division/department budgets and availability of equipment and materials; work with local businesses, industries, and community groups to plan and develop curriculum to meet employment needs; coordinate with full-time and part-time faculty members to enhance consistency and quality of lecture/laboratory

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content; evaluate and/or revise courses of study to fit curriculum designs; present proposals for curriculum changes to the Curriculum Committee and/or other shared governance bodies; design degree and certificate programs; research, evaluate and incorporate current technology into curriculum; function as a liaison with advisory committees to determine appropriate curriculum to meet current needs.

Departmental Management- ESSENTIAL: Schedule advisory committee meetings; develop departmental class schedules for full-time and adjunct faculty members; prepare and manage departmental budget(s) in accordance with established District policies and procedures; assist in record keeping; assist in recruitment and hiring of adjunct faculty members, as requested, in accordance with established District policies and procedures; work with divisional classified staff members and student and/or other temporary help in accordance with established District policies and procedures; prepare capital outlay requests; prepare Staffing Committee requests for new positions; coordinate with adjunct faculty members to ensure proper delivery of departmental curriculum. Coordinate off-site program, as assigned. **PERIPHERAL:** Write grants and Vocational and Technical Education Act (VTEA) proposals; interview and hire student and/or other temporary help; prepare annual Program Assessment and Review (PAR) plans.

Workforce Development Activities -ESSENTIAL: Participate in activities related to local economic development, as appropriate and feasible; provide input to local businesses regarding program capabilities, as requested; participate in the structuring of economic development activities as it relates to departmental operations; function as a liaison with the Workforce Development and Continuing Education Division in developing programs to meet community needs; participate on steering committees, as appropriate; assist in development and delivery of industry-specific classes; assist in maintaining quality and consistency of program delivery; evaluate other economic development models, as necessary.

Articulation- ESSENTIAL: Assist local area high schools and Regional Occupational Programs (ROPs) in developing curriculum to coordinate with community college offerings; function as a resource and attend meetings with representatives from local high schools and ROPs; assist in developing 2+2 articulation agreements with local high schools and ROPs; function as liaison for 2+2 and School to Career programs by developing and administering tests and evaluating performance objectives; provide local schools with appropriate lesson designs to meet departmental standards for articulation; assist local schools with selection of equipment and software, as appropriate. Articulate with universities to provide transfer opportunities into appropriate programs.

Shared Governance- ESSENTIAL: Respond in writing to requests for information, as appropriate; represent department and/or division by serving on District-wide committees, as appropriate and feasible; serve on employee selection committees, as requested; serve as functional member of one or more committees and/or task forces; read and respond to information polls distributed by the Academic Senate and/or other shared governance bodies. **PERIPHERAL:** Attend and participate in departmental staff meetings, division meetings, District meetings, and other activities, including Sierra College Collaborative Process (SCCP) training and activities; attend Board of Trustees and/or Strategic Council meetings, as necessary; read minutes of shared governance bodies, Board of Trustees reports, and other written material to maintain knowledge of District activities.

Professional Development-ESSENTIAL: Maintain membership and participation in activities of the California Drafting Technology Consortium (CDTC) and California Industrial and Technology Education Association (CITEA); attend and present workshops at Sierra College and professional conferences, as approved; attend trade shows and industry-sponsored seminars, as approved; consult with local industry representatives regarding trends in industry and employment standards for training, as appropriate; read literature to keep abreast of current technological developments; participate in faculty/industry internships, as appropriate.

Student Recruitment/Job Placement - ESSENTIAL: Conduct tours of District facilities, as appropriate; visit local area "feeder schools" to enhance visibility of departmental programs; host departmental "open house" activities in

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conjunction with Career Connections functions; prepare program brochures; provide student career advisement, as appropriate; develop departmental student recruitment materials; interact with local industry representatives to attempt to place departmental students in internships and permanent positions; give presentations to high school classes, as appropriate; assist departmental students to develop resumes and cover letters for job applications, as appropriate; coordinate industry recruitment visitations to the EST department; solicit and make recommendations for student scholarships from businesses and industries; coordinate student internships with local industries. **PERIPHERAL:** Attend local job fairs, as approved; make presentations to local area school boards, as requested; work with local area high schools and ROPs to develop a pool of potential departmental students.

MINIMUM QUALIFICATIONS

Licenses/Certifications: ESSENTIAL: Incumbent must possess and maintain (or be able to possess prior to appointment in this position) a valid California Class C or higher driver's license, and must also complete subsequent to appointment to this position requirements for a Hazardous Materials Awareness Training Card as issued by the District pursuant to completing District-provided training mandated by Federal and/or State Occupational Safety and Health Administration (OSHA/CalOSHA) "right to know" laws and regulations concerning handling of hazardous materials.

Degrees/Experience: ESSENTIAL: Incumbent must possess a Bachelor's degree AND two (2) years of occupational experience in the discipline AND any certificate or license required to do this work OR an Associate's Degree AND six (6) years of occupational experience in the discipline AND any certificate or license required to do this work OR the equivalent (areas included: Architecture, Civil, and Mechanical Drafting or related field).

Knowledge of: ESSENTIAL: Technical drafting principles and practices relative to architecture, civil, and mechanical engineering applications; engineering graphics; industry standards to include American National Standards Institute (ANSI), American Society of Mechanical Engineers (ASME), American Institute of Architects (AIA), and Construction Standards Institute (CSI); mathematics as applied to Engineering Support Technology; computer-aided design (CAD) software including general and specialized software applications; manufacturing processes; microcomputer/server management and operations; and resources of continuous re-training to respond to changes in technology.

Ability to: ESSENTIAL: Teach in lecture mode; conduct classes in a laboratory environment; organize lectures and laboratories; develop procedures for laboratories and other student activities; organize and budget departmental activities; work with community members, organizations, and advisory committees; supervise staff, including student and/or other temporary help and/or volunteers; use and teach computer hardware and related software application programs; develop, implement, and evaluate project-based curriculum; utilize safety procedures and techniques.

Physical Suitability Requirements:

ESSENTIAL: Incumbent must be able to function effectively indoors in a classroom/laboratory environment engaged in moderately active work and do the following, with or without reasonable accommodation: Almost constantly: Utilize vision (near and far, corrected 20/20 with color acuity) to see and use equipment, read printed and written materials and computer screens, drive vehicles while engaged in official travel; stand upright and forward flexing, often for long periods of time, to deliver lectures and assist students in laboratories; lift (from overhead, waist and floor levels, max. 40 lbs.) and carry (max. 40 lbs.) to move equipment and training aids in and out of storage and between classrooms and laboratories; stoop, bend, squat, kneel, and climb ladders and step stools to reach storage and other areas above ground level; push and pull to utilize hand trucks, carts and vehicles to move equipment and supplies; Frequently: Utilize speech and hearing for ordinary and telephonic conversation and to respond to students' questions; utilize manual and finger dexterity and fine motor skills to use tools and equipment and to demonstrate visual aids and use of equipment; walk, to move about classroom, laboratory, and campus environs; reach (from overhead and low levels) to demonstrate principles and techniques in a laboratory setting; work in areas subject to risk of exposure to dusts, and falling from heights above ground



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level while using ladders and/or step stools; wear personal protective equipment to protect face, eyes, hands, fingers, and body. Occasionally: Work in areas subject to risk of exposure to allergenic plants/materials; wear personal protective equipment (including respirators or other breathing devices) to protect breathing passages, hearing and skin.

Faculty Salary Schedule, subject to placement at date of hire.

FLSA exempt.

SCFA bargaining unit status.

Classification III, Bloodborne Pathogens Exposure Control Program.