

CROWDER COLLEGE POSITION DESCRIPTION

Status: FT, 9 months Grant funded	Title	ADVANCED MANUFACTURING INSTRUCTIONAL SPECIALIST
Revised: 07/29/09	Department	Technology (Crowder College Career Institute)
Level: Faculty	IPEDS	FACULTY
FLSA: Exempt	Reports to	Technology (CCCI) DIVISION CHAIR

POSITION SUMMARY

Provides formal instruction and program development services in all areas of advanced manufacturing offered by the college (*). Various instructional strategies will be used including traditional classroom methods, hands-on demonstrations/participation, computer/web-based instruction, and/or various combinations of approaches. Also participates in curriculum development, supports both college and division marketing efforts, establishes/coordinates industry-based advisory panel, and works to actively integrate alternative and renewable energy concepts into the advanced manufacturing program in support of Crowder's MARET (Missouri Alternative and Renewable Energy Technology) activities.

() - The U.S. Department of Labor/Employment and Training Administration defines "advanced manufacturing" as "the accelerated use of high-tech processes in the manufacturing plant....[including] product design, process engineering, and software support, as well as product packaging, shipping (though not the actual transportation), inventory management, and maintenance of capital equipment." (DOLETA, "Advanced Manufacturing Industry",11.1.05). The focus of "advanced manufacturing" in the context of this position will initially be in the setup and maintenance of equipment and systems required for the support of any type of automated and/or robotics-based manufacturing.*

MAJOR FUNCTIONS

1. Provide formal instruction and leadership in advanced manufacturing technology (AMT) as assigned utilizing appropriate curriculum, equipment, and materials. As noted above, the initial focus of AMT in the context of this position will be the setup and maintenance of equipment and systems required for the support of any type of automated and/or robotics-based manufacturing. As the program matures, this scope may be broadened to include other aspects of advanced manufacturing.
2. Work with Division Chair to determine appropriate curriculum, equipment, and materials utilizing either third-party resources [e.g.- consortium-based curriculum providers, commercial vendors, etc.] or by developing original coursework if necessary and as required.
3. Teach 15 credit-hours per semester. (Release from some teaching is possible for special projects or non-credit training or development activities with administrative approval.)
4. Specify, select, install, operate, and maintain necessary equipment and/or training modules required to support the specific course(s) being taught within departmental budget restraints.
5. Prepare course syllabi addressing targeted student abilities, specific competencies, textbook requirements, grading/assessment methodology, course scheduling, and/or other items as required.
6. Provide regular, timely reports to students of academic performance including current grades in course(s) taught.
7. Establish and/or maintain industry-based advisory panels in support of college-level advanced manufacturing technology program.
8. Complete and submit all required third party certification/documentation/reporting forms in a timely manner as specified by bona fide requesting agency or organization. (e.g. – accrediting/registration agency, Crowder's Grant Office, contracting consultants, etc.)
9. Demonstrate commitment to the program, division, and total institution by timely attendance and submission of required grade, attendance, or other miscellaneous reports to the administration.

10. Participate in marketing activities for the division and/or institution by interfacing with the college's Public Information Director to provide supporting materials as required for the development of advertising promotions such as brochures, media spots, web pages, posters, etc.
11. Initiate and maintain contact with area businesses and/or manufacturers for the purpose of promoting division programs through donations, employee referral, job shadowing/internship programs, advisory panel participation, and hiring of program graduates.
12. Initiate and/or maintain the ongoing integration of alternative and renewable energy concepts into the advanced manufacturing program in support of Crowder's MARET (Missouri Alternative and Renewable Energy Technology) activities.
13. Assist in student job placement and follow-up.
14. Develop and maintain a professional development plan.
15. Participate in professional development activities including workshops, conferences, and meetings.
16. Assist in obtaining or maintaining possible third-party accreditation [e.g.- National Association of Manufacturers (NAM), Association for Technology, Management, and Applied Engineering (ATMAE), or similar] for programs taught as assigned.
17. Assist in obtaining or maintaining appropriate grant funding as assigned.
18. Obtain/maintain applicable career-technical (CTE) teaching certifications as required by the state of Missouri. (*Note: Not currently required for teaching college-level CTE courses, but rules can change.*)
19. Participate in institutional committee work as interests dictate or as assigned.
20. Develop awareness of and maintain adherence to local, state, and federal regulations addressing the confidentiality of student information.
21. Perform other assigned duties and tasks as appropriate for the position.

KNOWLEDGE AND CRITICAL SKILLS/EXPERTISE
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1. Must qualify for and obtain any third-party certifications required by a curriculum provider or certifying organization approved by the college (such as: NAM, AWS, ATMAE, NCCER, etc., or selected vendors) in applicable advanced manufacturing subject areas.
2. Must meet basic eligibility requirements to obtain Missouri Technical Education Teacher Certification for post-secondary teaching assignments in advanced manufacturing technology, although actually obtaining such certification is not currently a requirement for employment.
3. Bachelor or Master's Degree in advanced manufacturing, manufacturing technology, or closely related area is preferred. Requires a minimum of Associate's Degree in advanced manufacturing, manufacturing technology or closely related area plus two years directly applicable experience.
4. Applicants holding no degree will be considered (subject to requirements No. 1 and 2 above) but a minimum of five years of directly applicable experience in advanced manufacturing, manufacturing technology or closely related area is required. If employed, applicant must establish and implement a professional development plan aimed at obtaining an Associate's Degree within five years of employment.
5. If employed for this position, applicants lacking teaching credentials or having no recent teaching experience must attend the New Teacher Institute, provided by Missouri's Department of Elementary and Secondary Education (DESE) at Crowder's expense at the earliest time at which such attendance can be scheduled. If questions arise relative to attendance requirements, the final decision shall be at the sole discretion of the Associate VP for Technical Education.
6. Ability to plan, organize, and implement assigned tasks in an effective and timely manner.
7. Ability to establish and maintain positive working relationships with students, other faculty, professional/classified staff, supervision, industrial advisory panels, and the public.

EQUIPMENT/SOFTWARE

1. Applicant must be able to specify, select, install, operate, and maintain all equipment specified in curriculum materials applicable to the areas being taught.
2. Must be fully computer literate and be able to operate a personal computer using the Microsoft Windows environment utilizing common Microsoft word processing, spreadsheet, and graphical presentation applications.
3. Must demonstrate ability to access the Internet, perform organized searches, and download/save/retrieve information.
4. Must utilize common computer-related tools/applications provided through Crowder's internal computer network such as e-mail, file transfer utilities, institutional ERP systems, and similar programs.
5. As required, must complete the college's internal training courses in Web-based ("Online") instruction and, upon completion, be able to develop and present applicable coursework in an "online" environment.
6. As required, must be able to select, setup, and utilize third-party curriculum packages or modules in either a classroom or online learning environment.

POSITIONS SUPERVISED

No direct administrative supervision but occasional task assignment/monitoring for an administrative assistant, student classroom assistant, work-study helper, or student intern. The incumbent may also be assigned limited responsibility in recruiting and mentoring adjunct instructors in the department (i.e. Advanced Manufacturing).

WORKING CONDITIONS

1. Generally indoors in a normal classroom as well as shop time in an advanced manufacturing setting. Can involve considerable exposure to temperature changes, noise, dust, or chemicals.
2. Working hours: Position is salaried/exempt, with 40 hours per week being considered a normal work load. As with any salaried position, however, it is sometimes necessary to devote additional hours beyond the minimum requirement. Hours are typically Monday through Friday during the day but alternate scheduling on evenings and/or weekends can be expected depending upon specific needs during a particular term. Reasonable prior notice of pending non-typical hours will be provided.
3. The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
4. A neat appearance and apparel appropriate to a classroom/shop environment are required.

PHYSICAL DEMANDS

1. Work involves the setup and operation of potentially hazardous equipment and machinery as well as the occasional lifting and moving of industrial and manufacturing components and materials requiring the lifting of at least 50 pounds. Mobility within the classroom and shop are required.
2. While performing the duties of this job, the employee is routinely required to stand; walk; sit; use hands to finger, handle or feel; reach with hands and arms' stoop, kneel, or crouch; and talk or hear. Specific vision abilities required by this job include close vision for the assembly of parts and for the avoidance of mechanical and electrical hazards.

LANGUAGE/COMMUNICATIONS SKILLS

1. Ability to communicate effectively with a variety of people, including staff, students and the general public, in both written and oral mediums.
2. Fluency in a second language, such as Spanish, is desirable but not required.