



CONNECTICUT COMMUNITY COLLEGES

Job Description
Advance Manufacturing Technology Instructor

Salary Level:
CCP17 or 18 (subject to Willis)

Date Approved/Revised:
1/5/21

Position Purpose

The Community Colleges offer a wide variety of educational programs including two year academic degree programs as well as technical and occupational programs. Among the programs are Advanced Manufacturing, Mechatronics Automation, LEAN Manufacturing, and Manufacturing Engineering Technology, which combine classroom, precision machining and fabrication training, and internship opportunities as components of the instruction model.

The Manufacturing Technology Instructor teaches courses at a Community College in subject areas such as applied computer use, mathematics, blueprint reading and set up, calibration, and operation of complex machine tools. The Instructor provides both classroom lecture and “hands-on” precision machining instruction and may develop curriculum as needed to respond to workforce needs.

Supervisory and Other Relationships

The Manufacturing Technology Instructor typically works under the direction of a Program Director or other administrator. Though supervision of the work of others is not, normally, a part of the position, there may be opportunities for the direct supervision of Educational Assistant Lab/Machine Shop Technicians and/or student workers.

The position has extensive supportive and cooperative relationships with students, for whom the position not only provides instruction, but may also provide personal tutoring. The position also has collegial and collaborative relationships with employers and manufacturing industry representatives, faculty, administration and staff and is expected to collaborate with academic and student services’ departments to contribute to student retention. The incumbent is expected to represent the College in a positive manner.

Major Accountabilities

The Manufacturing Technology Instructor is accountable for providing beneficial learning opportunities for assigned students through effective performance in these essential functional areas:

- Instruction planning and preparation;
- Classroom and shop instruction;
- Student records;
- Program planning, development, and oversight;

Examples of Duties

The following examples of duties and accountabilities illustrate the general range of tasks assigned to the position but are not intended to define the limits of required duties. Other essential duties may be assigned consistent with the general scope of the position.

A. Instruction planning and preparation: The Manufacturing Technology Instructor is accountable for preparing course materials, syllabi and instruction outlines to address the learning needs of assigned students and for being appropriately prepared for lectures and shop demonstrations. This accountability includes such essential tasks as:

1. Analyzing course content and students' learning needs;
2. Preparing syllabi, course outlines and materials according to curriculum and the learning needs of assigned students;
3. Preparing to present effective lectures and shop demonstrations.

B. Classroom and manufacturing lab/shop instruction: The Manufacturing Technology Instructor is accountable for delivering instruction that results in progressive student learning. This accountability includes such essential tasks as:

1. Presenting lectures, demonstrations and other materials appropriate to the curriculum and the learning needs of assigned students;
2. Providing supplemental instruction, coaching and tutoring as needed to assure the learning objectives of the program;
3. Assessing student progress through examinations and discussions and modifying instruction as needed to assure optimum student learning and success.

C. Student records administration: The Manufacturing Technology Instructor is accountable for accurate, timely and useful recording and reporting of student performance. This accountability includes such essential tasks as:

1. Measuring and recording student performance;
2. Preparing useful reports for students and College administration;
3. Preparing student performance reports for prospective employers;
4. Providing required student performance information for certification, degree and permanent student records.

D. Program planning, development, and oversight: The Manufacturing Technology Instructor is accountable for determining public and industry interest in advanced manufacturing associate degree and certificate programs and for assisting in the design, development, and oversight of these programs and related courses. This accountability includes such essential tasks as:

1. Monitoring advanced manufacturing industry trends regarding existing course offerings and soliciting information from industry sources regarding new programs and/or courses needed to address industry skill set needs.
2. Developing recommendations on courses and programs to meet industry needs.
3. Participating with faculty and administration in planning, developing, and implementing appropriate courses and manufacturing lab/shop content.

Professional Participation and Development

In addition to the accountabilities listed above, the position is required to carry out the essential duties of:

- Attendance and participation at convocation and commencement ceremonies;
- Service on assigned committees and task forces;
- Attendance and participation at committee, staff, informational and professional meetings.

These may involve attendance at evening or weekend events.

The incumbent is required to maintain currency in the position's required fields of professional expertise and competencies and to seek out and maintain membership in professional manufacturing organizations.

The incumbent is required to maintain complete confidentiality of student records and other information of a confidential nature.

Qualifications

Incumbents are required to have demonstrated advanced knowledge and abilities in the following areas:

- Professional competence in the assigned advanced manufacturing subject disciplines;
- Academic and practical instruction techniques and methodologies;
- Student testing and evaluation;
- Information technology literacy skills;
- Effective oral and written communications.

These skills and abilities are typically acquired through a combination of education, training, and industry experience which would either include:

1. High school diploma (or equivalent) from a public comprehensive high school or vocational technical high school and a minimum of 10 years of manufacturing technology industry experience **OR**;
2. High school diploma (or equivalent) from a public comprehensive high school or vocational technical high school and a minimum of 5 years of manufacturing technology industry experience and a CSCU community college advance manufacturing technology certificate or nationally recognized credential (i.e. NIMS, AWS, MSSC) **OR**;
3. Advanced Manufacturing Technology Associates Degree and a minimum of 5 years of manufacturing technology industry experience.

Applicants who do not have prior teaching experience must complete approved professional development in academic and practical instruction techniques and methodologies offered within the Connecticut State Colleges and Universities system.

Work Environment

Incumbents typically perform their work in offices, classrooms and applied instruction facilities such as advanced manufacturing shops or labs. The work does not, normally, involve any significant physical effort but may require demonstration of machine operation. Operation of shop equipment requires the use of safety equipment for protecting against potential injury to vision, hearing and other bodily harm. Incumbents travel to applied instruction sites and meet with employers and student groups. Incumbents need to be able to drive a private passenger automobile or to arrange for alternative transportation. Reasonable accommodation will be made for incumbents with physical limitations.

Job Context

The factor that differentiates salary level 17 and salary level 18 is the accountability for program planning, development and oversight. Advanced Manufacturing Technology (AMT) Instructors that perform instructional planning and preparation, provide classroom and shop instruction, and perform student records' administration are placed at salary level 17. AMT Instructors that also perform program planning, development and oversight in addition to performing instructional planning and preparation, providing classroom and shop instruction, and student records' administration are placed at salary level 18.