



# Capstone Tuition Waiver Application

## NanoScholar Internship Program

Electronics & Advanced Technologies • 1020 Grove Blvd., #S-104 • Austin, Texas 78741 • (512) 223-6271 • [lottmers@austincc.edu](mailto:lottmers@austincc.edu)

Students enrolled at Austin Community College (ACC) may be eligible for a waiver of tuition fees up to a maximum of 12 semester hours for eligible courses taken within the term of their NanoScholar Internship. Eligible Capstone courses are available only through ACC. Interested applicants who are not currently enrolled in ACC should contact Vidal Almanza at (512) 223-6404 for assistance in ACC admissions and registration.

To qualify for the Capstone Tuition Waiver, applicants must complete, sign and return this Capstone Tuition Waiver Application to the Program Coordinator at ACC and register for any one, two or three of the eligible courses during the term of their internship. Capstone Tuition Waivers are awarded only to applicants that are accepted into the NanoScholar Internship Program, have completed and returned an application, and have registered for eligible courses during their internship. Waivers may be issued as refunds for prepaid courses.

Return to: Laura Ottmers, Program Coordinator  
Nanoelectronics Project Grant  
Austin Community College  
1020 Grove Blvd., Bldg S, Room 104  
Austin, TX 78741

or FAX to: (512) 223-6761

### APPLICANT INFORMATION:

- Name:** \_\_\_\_\_  
FIRST MI LAST (FAMILY NAME)
- Address:** \_\_\_\_\_  
STREET CITY STATE ZIP
- Phone:** ( ) \_\_\_\_\_ ( ) \_\_\_\_\_  
HOME CELL/MOBILE
- Email:** \_\_\_\_\_
- SSN:** \_\_\_\_\_ or **ACC STUDENT ID:** \_\_\_\_\_
- Are you currently an ACC student?  Yes  No
- Please indicate your interest below:

#### Eligible Courses

- |  |   |
|--|---|
| <input type="checkbox"/> DFTG 1495 Special Topics in Mechanical Drafting - MEMS    | <input type="checkbox"/> ELMT 2473 Electrical, Electronic, and Fluid Schematics |
| <input type="checkbox"/> EECT 2188 Internship                                      | <input type="checkbox"/> SMFT 1473 Semiconductor Manufacturing Technology I     |
| <input type="checkbox"/> ELMT 2441 Electromechanical Systems                       | <input type="checkbox"/> SMFT 2473 Semiconductor Manufacturing Technology II    |
| <input type="checkbox"/> ELMT 2437 Electronic Troubleshooting, Service, and Repair | <input type="checkbox"/> SMFT 2341 Vacuum Principles & RF Plasma Systems        |

My dated signature below indicates that I am interested in taking the courses I have indicated above and wish to apply for a tuition waiver from Austin Community College. I understand that if the tuition waiver is offered it is contingent upon my acceptance into the NanoScholar Internship Program and will cover the cost of tuition only for a maximum of 12 credit hours from the restricted list of courses above and is available only while concurrently serving as a NanoScholar intern.

Your signature is required to complete this application.

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Date

For Office Use Only		
ACCEPTED: YES <input type="checkbox"/> NO <input type="checkbox"/>		
SESSION: _____		
SEM	COURSE	CR HRS
_____	_____	_____
_____	_____	_____
_____	_____	_____
STUDENT ID: _____		

- **DFTG 1495 SPECIAL TOPICS IN MECHANICAL DRAFTING AND MECHANICAL DRAFTING CAD/CADD (4-3-3).** Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.  
  
**Micro-Electro/Mechanical Systems**--Micro Electromechanical Systems (MEMS) are physical structures with dimensions in the micron range built using layers of poly silicon and sacrificial silicon dioxide. The designs are created using leading edge technology and design tools. The student will be introduced to MEMS through the use of AutoCAD as a base with extensions to support 2D and 3D modeling, layer cross section views and a design rule verification capability similar to the tools available in the integrated circuit design world. Fee: \$16 Skills: A Prerequisites: DFTG 1433 strongly recommended. ( ) Course Type: W
- **EECT 2188 INTERNSHIP-ELECTRICAL, ELECTRONIC AND COMMUNICATIONS ENGINEERING TECHNOLOGY/TECHNICIAN (1-0-6).** A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Insurance: \$3.50 Skills: [D](#) Prerequisites: ELMT 2441. ( ) Course Type: W
- **ELMT 2473 ELECTRICAL, ELECTRONIC AND FLUID SCHEMATICS (4-3-3).** Study of the techniques used in troubleshooting various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures. Fee: \$16 Insurance: \$3.50 Skills: [B](#) Prerequisites: ELMT 2472 and ELMT 1371 or department approval. ( ) Course Type: W
- **ELMT 2437 ELECTRONIC TROUBLESHOOTING, SERVICE, AND REPAIR (4-3-3).** In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and proper use of test equipment. May be offered as a capstone course. The course covers the troubleshooting of various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures. Fee: \$16 Insurance: \$3.50 Skills: [B](#) Prerequisites: CETT 1425 and ELMT 2441 recommended. ( ) Course Type: W
- **ELMT 2441 ELECTROMECHANICAL SYSTEMS (4-3-3).** A study of devices and components that translate electrical energy into mechanical motion. Topics include DC and AC motors and controllers, servo motors, stepping motors, solenoids, linear motors, and actuators. Introduction to pneumatics principles, components, control systems, and mass flow controllers. Principles of robotics, types of robots, and common applications. Programmable logic controllers and ladder logic. Open and closed control principles. PID controllers. Fee: \$16 Insurance: \$3.50 Skills: [B](#) Prerequisites: CETT 1425. ( ) Course Type: W
- **SMFT 1473 SEMICONDUCTOR MANUFACTURING TECHNOLOGY I (4-3-3).** A study of the processes, materials, and equipment used in the manufacturing of semiconductors, including an overview of the semiconductor industry, related terminology, and standard safety practices. Fee: \$16 Insurance: \$3.50 Skills: [B](#) ( ) Course Type: W
- **SMFT 2341 VACUUM PRINCIPLES & RF PLASMA SYSTEMS (3-2-4).** A study of vacuum principles and RF plasma systems in the semiconductor manufacturing industry. Vacuum topics include principles, components, systems, leak detection, and safety practices. RF plasma topics include plasma physics, RF power amplification and oscillators, transmission line, impedance matching, and safety. Fee: \$16 Insurance: \$3.50 Skills: [B](#) ( ) Course Type: W
- **SMFT 2473 SEMICONDUCTOR MANUFACTURING TECHNOLOGY II (4-3-3).** The continuation of Semiconductor Manufacturing Technology I covering the processes, materials, and equipment used in the manufacturing of semiconductors. Topics address process-yield analysis and process troubleshooting. Fee: \$16 Insurance: \$3.50 Skills: [B](#) Prerequisites: SMFT 1473. ( ) Course Type: W