

GRADUATE CERTIFICATE IN AUTOMATION ENGINEERING AND PLC

OFFERED BY: Department of Electrical and Computer Engineering

Programs: M.S. in Chemical Engineering, M.S. in Electrical Engineering, M.S. in Mechanical Engineering

ADMISSION:

This graduate certificate program is open to all persons holding a B.S. degree in any field of engineering from an ABET accredited undergraduate program or a degree in a closely related technical field such as physics or mathematics. The minimum overall GPA in the B.S. degree program should be at least 2.5.

Once admitted to the program, the student must take four designated courses as given below. In order to receive a graduate certificate, the student must have an average graduate grade point average of 3.0 or better in the certificate courses taken.

Students admitted to the certificate program will have non-degree graduate status. If the four-course sequence is completed with a grade of B or better in each of the courses taken, they will be admitted to the M.S. program in chemical engineering, electrical engineering, or mechanical engineering, provided that all other program prerequisites and admission requirements are met. The certificate courses taken by students admitted to the M.S. program will count towards their master's degrees. Students who do not have all of the prerequisite courses necessary to take the courses in the certificate program will be allowed to take "bridge" courses at either the graduate or undergraduate level to prepare for the formal certificate courses.

Once admitted to the program, a student will be given three years to complete the program so long as he/she maintains a B average in the courses taken.

CURRICULUM:

Students enrolled in this graduate certificate program will take two required courses and two elective courses. Alternative courses may be substituted with the departmental approval dependent on the availability of the courses listed below:

Required courses:

Chem Eng 5190/Elec Eng 5350 – Plantwide Process Control

Elec Eng 5340 – Advanced PLC

Choose two of the following:

Chem Eng 5140 – Intermediate Chemical Process Safety

Elec Eng 5345 – PLC Motion Control

Elec Eng 5870/Mech Eng 5478 – Mechatronics

Mech Eng 5449 – Robotic Manipulators and Mechanisms

Mech Eng 5655 – Manufacturing Equipment Automation