

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Industrial Manufacturing</u>
COURSE RUBRIC AND NUMBER	<u>RBTC 1245</u>
COURSE TITLE	<u>Robotic Interfacing</u>
COURSE CREDIT HOURS	<u>2 1 : 4</u> Credits Lec Lab

I. Catalog Description

A study of the basic principles of robot controllers, controller input/output, memory, and interfacing with computer integrated manufacturing. **(1:4). Lab fee.**

II. Course Objectives

Upon satisfactory completion of this course, the student will be able to:

- A. Safety
 - 1. Perform safety and environmental assessments.
 - 2. Monitor safe equipment and operator performance.

- B. Manufacturing Processes and Production
 - 1. Identify customer needs.
 - 2. Determine resources available for the production process.
 - 3. Set up and verify equipment for the production process.
 - 4. Delegate job assignments.
 - 5. Coordinate work flow with team members and other work groups.

- C. Interfacing
 - 1. Demonstrate techniques of industrial robot interfacing.
 - 2. Interface equipment to enhance performance.
 - 3. Manipulate automated equipment.
 - 4. Diagnose interfacing problems.
 - 5. Solve interfacing problems.

- D. Green Production
 - 1. Monitor environmental aspects at each stage of production.
 - 2. Implement continuous improvement in environmental assurance practices.
 - 3. Reprocess materials by recycling and reuse throughout product life cycle to optimize waste reduction.

III. THECB Learning Outcomes (WECM)

1. Apply interfacing techniques on industrial robotic systems to enhance performance capacity.
2. Diagnose and solve issues encountered.

IV. Evaluation

Students must demonstrate the knowledge and skills stated in the objectives in order to complete the course. Exams, quizzes, and lab assignments will be determined by the instructor.

The final grade report will be based on the percentage of the total points earned.

90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

Students should be able to compute their grade average anytime during the course. Missed assignments and make-up tests will be given at the discretion of the instructor.

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024)

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.

VII. Title IX and Sex Discrimination

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.