SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
ELT 234S ROBOTIC SYSTEM INTEGRATION
3 CREDIT HOURS

COURSE DESCRIPTION

Develops a framework for the practical application of robotics, programmable logic controllers, and other automation into a successful system integration for manufacturing. The topics covered include typical industrial applications for robots, development and simulation of robotic systems, specification preparation, financial justification, and successful implementation. Hands-on labs culminate in teams constructing, testing, and evaluating a working industrial workcell. Prerequisite: ELT 151S or ELT 233S. Lab fee.

COURSE GOALS

The student will:

Bloom's Level		Program Outcomes
1	1. Identify types of robots and other automation components.	2
1	2. Select a manufacturing application to safely automate.	4
3	3. Develop and simulate a workcell design.	3
5	4. Justify the financial use of automation in a workcell.	7
5	5. Construct an automated workcell.	1, 3, 8
5	6. Test and evaluate an automated workcell.	5
5	7. Construct and deliver a presentation of the team's workcell.	6

CORE VALUES

The Core Values are a set of principles that guide in creating educational programs and environments at Edison State. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

TOPIC OUTLINE

1. Introduction to automation
2. Industrial Robots
3. Automation system components
4. Typical applications of robotic integration
5. Solution development
6. Specification preparation
7. Financial justification
8. Successful implementation