

INSTRUCTOR CONTACT INFORMATION

Instructor: Weldon Jacobs
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Office Location: ATC Building
Office Hours: TR 4:3- - 5 or by appointment.

CREDIT

3 Semester Credit Hours (2 hours lecture, 4 hours lab)

MODE OF INSTRUCTION

Face to face

PREREQUISITE/CO-REQUISITE:

none

COURSE DESCRIPTION

An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems.

COURSE OBJECTIVES

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

- Describe general characteristics of flexible robotic manufacturing systems.
- Utilize different teaching pendants.
- Describe different control systems.
- Develop various applications for robots.
- Identify and calibrate, test, manipulate, update, fabricate parts for, and maintain automated equipment.
- Discuss the impact of flexible automation on production and labor.

REQUIRED TEXTBOOK AND MATERIALS

List required texts and materials.

ATTENDANCE POLICY

Robots and Robotics: Principles, Systems, and Industrial Applications

By Rex Miller, Mark Miller, Mark Richard Miller

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR

DATE	TOPIC	READINGS	ASSIGNMENTS
1/25	Class Inro		
2/1	Chapter	Chapter One	worksheets
2/8		Chapter Two	worksheets
2/15		Chapter Three	worksheets
2/22		Chapter 1 – 3 Exam	exam
3/1		Chapter Four	worksheets
3/8		Chapter Five	worksheets
3/22		Chapter Six	worksheets
3/29		Chapter 4 – 6 Exam	exam
4/5		Chapter Seven	worksheets
4/12		Chapter Eight	worksheets
4/19		Chapter Nine	worksheets
4/26		Chapter Ten	worksheets
5/3		Chapter 7 – 10 Exam	Exam
5/10		Final Project	robots
5/10		Final Project	robots

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Labwork 25%
- Classwork 35%

- Exams 40%

GRADING SCALE

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

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

*******NO MAKEUP WORK AND NO LATE WORK WILL BE ACCEPTED.*******

CLASSWORK:

Classwork will be done in class or due at the beginning of the next class period if it is a take home. If you are not here that day, or you do not turn the work in, then you will receive a zero.

HOMEWORK:

Homework from questions at end of each chapter of textbook will be assigned. Each homework assignment will be due on the day of the exam. Example. Chapter One homework will be due on the day that Chapter One exam is administered. If it is not turned in by due date, you will receive a zero.

LABWORK:

Lab work will be done in class. If you are not here that day, then you will receive a zero.

Absolutely no talking during an exam. (**no excuses**)

Cell phones are not to be seen during lecture. You may be asked to leave the classroom if they ring. Cell phones **may not** be used as calculators. **No texting** during class.

Make sure that when finished with lab, you turn power off to meters and the lab station, and clean up your work area.