



COURSE SYLLABUS

PO Box 1189
1042 W. Hamlet Avenue
Hamlet, NC 28345
(910) 410-1700
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COURSE: ATR 120 INTRODUCTION TO AUTONOMOUS VEHICLES

HOURS: Lecture: 2 Lab/Shop: 2 Work Exp/Clinical: 0 Credits: 3

COURSE DESCRIPTION:

This course introduces trends, control technologies, and applications of piloted and autonomous vehicles. Topics include the current and future trends in technology, design constraints, control systems, data transmission, programming, and the remote or autonomous piloting of vehicles. Upon completion, students should be able to identify and explain common functionality of autonomous vehicle systems, designs, programming, control systems, data transmission requirements, and remote operation.

PREREQUISITE(S): ELC 128 or ELN 260

COREQUISITE(S): None

TEXTBOOK(S) & OTHER SPECIAL REQUIREMENTS:

None

STUDENT LEARNING OUTCOMES:

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

1. Explain basic principles and development of Autonomous Guided Vehicles.
2. Understand the basic components for constructing a material handling and tracking system.
3. Understand the basic principles and applications of commonly used actuators, sensors, and their interfacing technologies.
4. Use actuators, sensors and software programming to develop Autonomous Guided Vehicles.
5. Develop programs using PLCs and embedded controllers for controlling AGVs.

*****Please refer to the online version of the Richmond Community College Program & Course Catalog and the Student Handbook for current academic and general policies.**