

# ATR 215

Sensors and Transducers (2-3-3) section 301  
FALL 2017

**Instructor:**

**Email:**

**Class Time:** Wednesday 10:00-11:50AM

**Office Location:**

**Office Hours:**

## COURSE DESCRIPTION

This course provides the theory and application of sensors typically found in an automated manufacturing system. Topics include physical properties, operating range, and other characteristics of numerous sensors and transducers used to detect temperature, pressure, position, and other desired physical parameters. Upon completion, students should be able to properly interface a sensor to a PLC, PC or process control system.

## REQUIRED COURSE MATERIALS

**Textbook –**

Instrumentation and Process Control by Kirk, Weedon and Kirk, American Technical Publishers, ISBN- 978-0-8269-3442-0

**Supplies –**

No Supplies Required

**Technology –**

Computer for accessing the internet

USB Drive for saving work

## STUDENT LEARNING OUTCOMES

- A.** Describe the purpose of sensors and transducers in automation
- B.** Identify a number of devices widely used in industry
- C.** Integrate sensor and transducer devices into a PLC operated system

## EVALUATION / GRADING

Your final grade will be determined as follows:

Tests	10%
Assignments	30%
Labs	30%
Final Exam	10%
Attendance/Participation	20%

## GRADING SCALE

This course uses the following grading scale:

<b>A</b> =	93-100
<b>B</b> =	85-92
<b>C</b> =	77-84
<b>D</b> =	70-76
<b>F</b> =	Below 70
<b>I</b> =	Incomplete

## ATTENDANCE POLICY

[The Cleveland Community College Attendance Policy](#)

## CODE OF CONDUCT POLICY

[Student Responsibilities \(Student Code of Conduct\)](#)

## ACADEMIC AND PHYSICAL ACCOMMODATIONS

**Access and Accommodations:** Your experience in this class is important to your instructor, and it is the policy and practice of Cleveland Community College to create inclusive and accessible learning environments consistent with federal and state law. If you experience barriers based on a temporary health condition or disability (which could include but is not limited to mental health, attention-related, learning, vision, hearing, physical or health impacts) and as a result cannot participate fully in this class, complete course requirements, or benefit from the College's programs or services, contact Disability Services as soon as possible.

To receive any academic accommodation, you must be appropriately registered with Disability Services at CCC. This office works with students confidentially and does not disclose any disability-related information without the student's permission. You are welcome to contact them at 704-669-4096 or [disabilityservices@clevelandcc.edu](mailto:disabilityservices@clevelandcc.edu). If you have already established accommodations with Disability Services for this semester your instructor has been notified. You will want to discuss your approved accommodations with your instructor at your earliest convenience to make sure your needs in this course are met.

If you have a condition which may affect your ability to exit the premises in an emergency or which may cause an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or Disability Services.

## ACADEMIC INTEGRITY POLICY

[CCC Academic Integrity Policy](#)

## CALENDAR / IMPORTANT DATES

[Calendar and Important Dates](#) for this term.

## COURSE SCHEDULE

Wednesdays 10:00AM-11:50AM

## ADDENDUM

Any information the individual faculty member deems appropriate for the course. If pasting text, right-click and choose "Keep text only".