

**New Horizons Regional Education Center
Introduction to Electronics and Robotics Technology I
Course Syllabus**

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Office Hours: 7:20am- 7:35 am and 10:15am- 10:45am
12:00pm-12:14pm and 2:45pm- 3:00pm

Course Description: The Introduction to Electronics and Robotics Technology program teaches the fundamentals of electricity, electron theory, direct and alternating current, motors, sensors, robotic principals along with basic programming in Easy C/Robot C. People who study robotics can find career opportunities in a number of sub-industries such as robotics in automotive manufacturing, robotics in military applications, robotics in space or even robotics in the home. Consider if you will the future of robotic artificially intelligent androids. Someone will need to build these units, maintain these products and repair them when they do not function.

Required Textbooks and lab Books:

(Electronics I)

Text: Introduction to Electronics Fifth Edition

Author: Gates

Publisher: Thomson Delmar Learning

Lab books: Introduction to Electronics Fifth Edition

Author: Gates

Publisher: Thomson Delmar Learning

Required Software/Hardware:

**Amatrol : 1) Robotics 1 Simulation using the Pegasus Robot with conveyor system ,
2) Electrical Control Systems 1, Computer Control Systems 1, Mechanical Systems I and Pnematics I using the Electrical Systems Trainer containing Allen Bradley PLC hardware,**

**Intellitek Inc: 1) Robotics Engineering Curriculum, using the VEX robot,
2) Scorbot Robot curriculum using the Scorbot robot with conveyor system**

National Instruments: 1) Labview and multisym electronics programs using the digital Elvis Trainers

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Materials for class:

Quantity	Item
2	Pencils (#2 lead)
2	Pens (black or blue ink color)
1	Three subject spiral notebook or 3 single subjects
1	Pack of college ruled filler paper
1	Calculator with scientific and engineering functions
1	Composition book for Engineering notebook
1	Combination Lock for locker

(Course Fees:

(Electronics I)

Class supply fee: \$16.00

Total fees: \$ 16.00

Evaluation of Students Performance:

Grading Criteria:

Employability skills: (example: Attitude, Work Ethics, etc)	30%
Related Instruction: (Class assignments, tests, quizzes, projects, labs)	35%
State Competencies: (Defined by the Department of Education)	35%

Grading system:

90-100 = A
80-89 = B
70-79 = C
60-69 = D

**All software programs, text books and tools/equipment used in class are provided by the school.

Please make sure all items are brought to school within the first week of school to insure a successful school year !