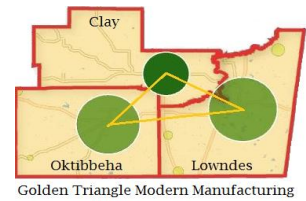


East Mississippi Community College Golden Triangle Modern Manufacturing Project



Open Source Sites for Academic Instruction and Remediation

- Action 4.3 Expand usage of self-paced, open-source, online, academic instruction/remediation resources.

Related Deliverable – List of open source, online academic instruction/remediation resources.

The following courses are free, web based sites that contain open source materials in science, mathematics and language arts, along with other subjects. Some require a user name and password to be established prior to viewing and are indicated by *.

www.khanacademy.com provides a free series of videos on various topics including sciences, mathematics and humanities.

- Electrical, Automation & Control, Electronics - Ohm's Law, Circuits, Reverse Engineering, Robots
- Drafting & Design - Trigonometry, Mapping Points
- Manufacturing Discovery (remediation) - a review of basic principles and fundamentals of math:
 - Arithmetic (<http://www.khanacademy.org/math/arithmatic>)
 - Pre-Algebra (<http://www.khanacademy.org/math/pre-algebra>)
 - Algebra I (<http://www.khanacademy.org/math/algebra>)

<http://www.learnatest.com/LEL/index.cfm>/* offers practice tests, exercises, skill-building courses, eBooks, and information you need to achieve the results you want.

- Automotive, Electrical, Automation & Control, Electronics - Career and Technical College Skills (math, reading and writing skills practice)
- Drafting & Design, Welding - Geometry and Trigonometry

www.curriki.org offers free online curricula.

- Drafting & Design, Welding - Geometry and Trigonometry
- Electrical, Automation & Control, Electronics - Ohm's Law, Circuits, Reverse Engineering, Robotics

www.udacity.com includes videos, exercises, personalized support, and verified certificates

- Drafting & Design - 3-D graphics

- Electrical, Automation & Control - Intro to Physics (charge and electric fields)
- All programs - Intro to Algebra and Visual Algebra

<http://open.umich.edu/> encourages researchers, learners, and instructors to maximize the impact and reach of their school

- All students participate in academic courses in Math, Physics, Botany, and English, a life skills course focused on professional development and community building, and a computer lab. Additionally, there are hands-on applications lab for engineering and agriculture.

www.coursera.org is an education platform that partners with top universities and organizations worldwide to offer courses online for anyone to take, for free.

- Drafting & Design - 3-D graphics
- Electrical, Automation & Control - Intro to Physics (charge and electric fields)

www.merlot.org is a free and open peer reviewed collection of online teaching and learning materials and faculty-developed services contributed and used by an international education community.

- Electrical, Automation & Control & Electronics - Intro to Physics (Electricity and Magnetism), All about Circuits, Challenges for Electronics, Power Formulas and Current Flow, Electrical Principles and Applied Calculations
- Drafting & Design - Geometry, Trigonometry
- Automotive - Mathematics for mechanics

www.internet4classrooms.com is a website more geared to high school students but covers interpreting graphs, fractions, geometry, etc.

- Drafting & Design, Welding - Geometry

<http://ocw.mit.edu/index.htm> is MIT's open courseware that allows anyone to register for free college classes.

- Electrical, Automation and Control, Drafting and Design - Engineering related courses.

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