

STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK

MASTER SYLLABUS

ELEC 203 – ENGINEERING TECHNOLOGY PROJECT

Prepared By: Stephen E. Frempong

SCHOOL OF ENGINEERING TECHNOLOGY
ELECTRICAL ENGINEERING TECHNOLOGY & ENGINEERING
SCIENCE DEPARTMENT
FALL 2018

ELEC 203 – ENGINEERING TECHNOLOGY PROJECT

- A. TITLE: ENGINEERING TECHNOLOGY PROJECT
- B. COURSE NUMBER: ELEC 203
- C. CREDIT HOURS: (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 1 !
Lecture Hours: per week
Lab Hours: 3 per week
Other: per week

Course Length: 15 Weeks

D. WRITING INTENSIVE COURSE: NO

E. GER CATEGORY: NONE

F. SEMESTER OFFERED: SPRING

G. CATALOG DESCRIPTION:

Senior project (capstone) course that gives the student an opportunity to think, design, construct, and present a finished product based on knowledge/experience from previous or current courses such as electronic circuits, telecommunications, microprocessors, and industrial controls. Each team is expected to do a classroom presentation on the final project. Examples of design project: High Power Emergency Power Supply (Alternative Energy), Industrial Monitoring System (using sensing devices), and Electronics/Communication Systems. All project proposals must be approved by course instructor.

H. PRE-REQUISITES: ELEC141, ELEC215, and ELEC231, or permission of instructor.

CO-REQUISITES: NONE

I. STUDENT LEARNING OUTCOMES

Institutional Student Learning Objectives (ISLO)

- (1) Communication (2) Critical Thinking (3) Foundational Skills (4) Social Responsibility (5) Industry, Professional, Discipline Specific Knowledge and Skills

ABET- STUDENT OUTCOMES (a-k)

Course Objectives	ABET – Student Outcomes (a-k)	Institutional (ISLO’s)
<p>a. Project proposal, design, build, test, and demonstrate engineering project result.</p>	<p>(a) An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities.</p> <p>(b) An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies.</p> <p>(d) An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives.</p>	<p>(2) Critical thinking</p> <p>(5) Industry, Professional, Discipline Specific Knowledge and Skills.</p>
<p>b. Prepare project paper and PowerPoint presentation</p>	<p>(g) An ability to apply</p>	<p>(1) Communication</p>

	written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.	
c. Work as a team, share responsibilities and solve technical problems	(e) an ability to function effectively as a member or leader on a technical team.	(4) Social Responsibility

J. APPLIED LEARNING COMPONENT: Creative Works/Senior Project

K. TEXTS: No textbook required.

L. REFERENCES

Timothy J. Maloney, *Modern Industrial Electronics, 5st Edition*.
Upper Saddle River, New Jersey: Prentice-Hall, 2004.

Robert T. Paynter, *Introductory Electronic Devices and Circuits, .*
7th Edition. Upper Saddle River, New Jersey: Prentice-Hall, 2006.

Jeffrey S. Beasley, and Gary M. Miller, *Modern Electronic Communication,*
8th Edition. Upper Saddle River, New Jersey: Prentice-Hall, 2005.

Joseph J. Carr, and John M. Brown, *Introduction to Biomedical Equipment*
4th Edition. Upper Saddle River, New Jersey: Prentice- Hall, 2001.

M. EQUIPMENT: Regular EET Laboratory Equipment

N. GRADING METHOD: A-F

O. ! SUGGESTED MEASUREMENT CRITERIA/METHODS: Project proposal, Weekly updates, Project quality and demonstration, Presentation skills, and Final paper.

P. DETAILED COURSE OUTLINE

1. Project proposal
2. Project review and approval
3. Project research discussion
4. Final paper requirements and discussion
5. Project design
6. Obtain components and materials needed
7. Project updates/questions and answers (every two weeks)
8. Project construction
9. Final paper submission
10. Project demonstration
11. PowerPoint presentation

Q. LABORATORY OUTLINE: NONE