



Bethesda University

730 North Euclid Street, Anaheim, California 92801 Tel: (714)517-1945, Fax: (714)683-1440

IT 235 Introduction to Embedded System

Prof. Benjamin Rah			
Class Hour:	Tuesday 6:50 - 9:20 PM	Class Room:	Room 301: Computer Lab
Office:	Room 309	Phone:	714-517-1945 ext. 1301
Office Hours/ Consultation:	TBA	E-mail:	benjaminrah@buc.edu
TA:	none	Credit Unit:	3

A. Mission Statement

Bethesda University

Mission of the Bethesda University

Bethesda University is a Christ-centered community of higher education preparing men and women with professional competence, academic excellence and spiritual integrity to be servant leaders in the Church, the Community and Global Society.

B. Course's Academic Level and Place in Curriculum:

There is no pre-requisite to take this course. This course may be taken at any time.

C. Course Description

This course introduces Arduino Embedded Board to students. Students will have hands-on experience on programming C and Arduino Board for various embedded system and C programming projects.

D. Course Objectives & Student Outcomes

Upon completion of this course students will:

1. Demonstrate professional knowledge and skills in information technology with Christian values.

E. Class Formation



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F. Required Textbook(s)

No.	Title	Author	Publisher	Year
1	Make: Getting Started with Arduino, 3 rd Ed.	Massimo Banzi & Michael Shiloh	Maker Media, Inc	2014
2	C Programming for Arduino	Julien Bayle	Packt Publishing	2013

G. Recommended Reading and Other Course Resources (All reserved for reading)

No.	Title	Author	Publisher	Year
2	Arduino Cookbook, 2nd Edition	Michael Margolis	O'Reilly Media	2011

H. Course Calendar/Schedule, include the following

N	Date	Theme	Reading	Assignments
1	8/27	Course Introduction		
2	9/3	Arduino Platform	Getting, Ch. 1,2,3	
3	9/10	Really Getting Started, Part 1	Getting, Ch. 4	
4	9/17	Really Getting Started, Part 2		
5	9/24	Really Getting Started, Part 3		
6	10/1	C Basics	C Programming, Ch. 3	
7	10/8	Improve Programming with Functions, Math, and Timing	C Programming, Ch. 4	
8	10/15	Advanced Input and Output, Part 1	Getting, Ch. 5	
9	10/22	Advanced Input and Output, Part 2		
10	10/29	Advanced Input and Output, Part 3		
11	11/5	Book Project 1, Part 1	Getting, Ch. 7	
12	11/12	Book Project 1, Part 2		
13	11/19	Troubleshooting, Part 1	Getting, Ch. 9	
14	11/26	Thanksgiving Reading Week		
15	12/3	Troubleshooting, Part 2		
		Final Exam		

I. Assignments

1. TBA



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J. Evaluation/Assessment Rationale for Grade Determination

1. Grade Assessment

- TBA

2. Grade definition

- A Excellent
- B Good
- C Satisfactory
- D Poor
- F Failure

3. Grade scale

Letter Grade	Numeric Grade	Grade Points
A	95-100	4.0
A-	90-94	3.7
B+	87-89	3.3
B	84-86	3.0
B-	80-83	2.7
C+	77-79	2.3
C	74-76	2.0
C-	70-73	1.7
D+	67-69	1.3
D	64-66	1.0
D-	60-63	0.7
F	59 or below	0

K. Course Policies

1. Attendance, Preparation, and Participation:

Attendance, preparation, and participation in the class, its discussions, exercises, and assessments are a crucial part of the learning process. Students who incur two unexcused absences from scheduled classes will suffer a drop in their grade. Students who incur three or more unexcused absences from scheduled classes shall receive a grade of F for the course.

2. Deadlines:

All Assignments are due at the end of class, unless otherwise noted by the instructor.



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3. Advance Assistance:

Discuss with your professor.

4. Assignment Options:

If you have an option that fits your situation and fulfills the course requirements please discuss your idea with the professor to determine whether it will be approved.

5. Make up work:

Students who miss deadlines due to excused absences are permitted to turn in late assignments or projects without penalty. The professor does not accept late assignments after Dec 12, 2014.

6. Extra-credit work:

None.

7. Emergency procedures:

Check with Student Handbook for emergency procedures.

8. Other policies on Withdrawal and Grade Permanence, Academic Integrity, and Appeals and Grievance procedures refer to the Student Handbooks and Catalog.

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L. Support Services

1. **Cheating** - Intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.
 - Students completing any examination should assume that external assistance (e.g., books, notes, calculators, and conversations with others) is prohibited unless specifically authorized by the instructor.
 - Students may not allow others to conduct research or prepare work for them without advance authorization from the instructor.
 - Substantial portions of the same academic work may not be submitted for credit in more than one course without authorization.
2. **Fabrication** - Intentional falsification or invention of any information or citation in an academic exercise.
3. **Facilitating academic dishonesty** - Intentionally or knowingly helping or attempting to help another commit an act of academic dishonesty.



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- 4. Plagiarism** - Intentionally or knowingly representing the words, ideas, or work of another as one's own in any academic exercise.

M. Bibliography

Banzi, Massimo and Michael Shiloh. Make: Getting Started with Arduino. Maker Media, Inc, 2014.

Bayle, Julien. C Programming for Arduino. Packt Publishing, 2013.

Margolis, Michael. Arduino Cookbook, 2nd Edition. O'Reilly Media, 2011.