




Lab III (Embedded System) ECE 324C



Benha University

Computer Systems Engineering
Electrical Engineering Department

Faculty of Engineering
(at Shoubra)

- Course Title:** Lab III (Embedded System)
- Course Code:** ECE 324C
- Course Page:** <http://bu.edu eg/staff/islam.elshaarawy-courses/14157>
- Instructor:** Dr. Islam ElShaarawy (<http://www.bu.edu eg/staff/islam.elshaarawy>)
- Main Textbook:** Edward Angel and Dave Shreiner. *Embedded Systems: Introduction to Arm® Cortex™-M Microcontrollers*. 5th Edition (2nd printing), CreateSpace Independent Publishing Platform, 2014, ISBN 978-1477508992.
- Online Resources:**  <http://users.ece.utexas.edu/~valvano/>
<http://www.ti.com/tool/sw-tm4c>

- Course Contents:**
1. Introduction to Computers and Electronics
 2. Introduction to Embedded Systems
 3. Introduction to the ARM Cortex-M
 4. Introduction to Input/Output
 5. Modular Programming
 6. Pointers and Data Structures
 7. Variables, Numbers, and Parameter Passing
 8. Serial and Parallel Port Interfacing
 9. Interrupt Programming and Real-time Systems
 10. Analog I/O Interfacing
 11. Communication Systems

Course Policy:

1. Attendance is compulsory.
2. **Reading the relevant chapter(s) ahead of lectures is essential.**
3. Keeping track of whatever happens during the lectures is the student responsibility regardless of attendance.
4. Side talking, cellphones, laptops, food/drinks, and walking¹ are not allowed.



5. **Leaked solution manual as well as any other resources (unless otherwise specified) should never be used for solving the assignments.**

Grading System:

Attendance²:	000
Homework:	010
Lab Work:	010
Midterm Exam:	010
Oral/Practical:	020
Final Exam:	050
Total	100

¹ If you are late for the lecture, then you are allowed to walk into the lecture hall but quietly.

² Attendance will be taken anyway.