

King Saud University  
Electrical Engineering Department

GE208: Programming in C  
First Semester 1429-1430 H

Credit Hours: 2 H

**Instructor:** Ibrahim Elshafiey  
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**Textbook:** H.H. Tan and T.B. D’Orazio, “C Programming for Engineering & Computer Science”, *McGraw-Hill*, 1999.

- References:**
- [1] Jeri R. Hanly, Elliot B. Koffman, and Joan C. Horvath, “C Program Design for Engineers”, Addison Wesley 1995.
  - [2] P.J. Plauger , “The Standard C Library”, Prentice-Hall, 1992.
  - [3] B.W. Kernighan and D.M. Ritchie, “The C Programming Language”, 2nd edition, Prentice-Hall, 1988.
  - [4] A.I. Holub, “The C Companion”, Prentice-Hall, 1987.

**Course Outline:**

Week #1	Introduction to Computers and Programming	pp. 1-17
Week #2	The C Language, Compilers, Numbers Systems	pp. 17-31
Week #3	Program Structure, Comments and Printing	pp. 37-50
Week #4	Formatting Output, Escape Sequences, Program Debugging	pp. 50-72
Week #5	Variables, Constants, Arithmetic Operators and Expressions	pp. 75-115
Week #6	Reading Data, Writing to Files, Single Character Data	pp.115-150
Week #7	IF Statements, Logical Operators and Expressions,	pp. 169-191

**First Midterm Exam**

Week #8	Switch statement and IF-ELSE-IF Control Structures,	pp. 191-199
Week #9	WHILE and FOR Loops, Applications	pp. 199-260
Week #10	Function Prototypes, Definitions, and Call	pp. 265-302
Week #11	Address and Pointer Variables, Applications	pp. 302-338
Week #12	One Dimensional Arrays, Array I/O	pp. 348-368
Week #13	Multidimensional Arrays, Arrays and Functions, Applications and Review	pp. 368-438

**Second Midterm Exam**

Week #14	Strings and Pointers	pp. 445-480
Week #15	Applications and General Review	

**Grading:**

- 30% Two Midterms
- 20% Laboratory
- 10% Homework and Quizzes
- 40% Final Examination