University of New Haven Taglitela College of Engineering Computer Science

COURSE SYLLABUS (tentative)

CS110 Section 01 & 50 Introduction to C Programming Spring 2013

T/R: 4:00p-5:50p & 6:00p-7:50p

Buckman 239

Credit Hours: 3 Contact Hours:4 Course Website: BlackBoard 9 (BB9) Joseph (Joe) M. Brignola Office: None Phone (home): 203-389-6177 email: jBrignola@NewHaven.edu Office Hours: before and after classes

Homework: 6-9 hours per week

Course Description

Prerequisite: M 109 or consent of CS coordinator. Prerequisite or corequisite: M 115. A first course in computer programming using the C language; for engineering, computer science, mathematics, and science students. Problem-solving methods, algorithm development, and good programming style. Expressions, functions, libraries, basic types and arrays. Programming assignments will stress numeric applications. Lecture plus lab, including work with LEGO Mindstorm(TM) robots. (4 contact hours); 3 credit hours. 3 credits

Required Text

NONE, only the free PDFs of book, see BB9 for link

Applied C: An Introduction And More...

Authors: Alice Fischer, David Eggert, Stephen Ross

Publisher: McGraw-Hill, 2001

Course Learning Outcomes

This course is intended as an introduction to the programming and software design process using the C language. More specific goals include:

To learn how to prepare and use program specifications and test plans.

To develop the ability to code and debug programs.

To learn the use of good style and clean coding techniques.

To learn how to format input and output in a readable way.

To learn about the use of numeric and character variables and constants.

To understand the limitations of computer representation of numbers.

To learn how to write expressions and draw parse trees for them.

To learn how to use function libraries and create projects.

To understand variable scope and visibility.

To learn about the use of loops, conditionals, and switches in a variety of contexts.

To learn about the definition and use of functions with zero, one, or more parameters.

To learn how to develop a program piece by piece using a top-down technique.

To learn how arrays are implemented and used.

To learn how to control a robot using the NXC language.

To learn about the capabilities and limitations of the Lego Mindstorms robots.

Course requirements, Assessments and Administration

Your grade (tentatively) will be based on the following activities:

15% - Exam 1

15% - Exam 2

25% - Exam 3

25% - Programming exercises

20% - Laboratory reports/demos

An unsatisfactory grade in any 1 area (Exams, Programming or Lab) will be an unsatisfactory for the course.

Attendance – will be used as a weight of the curve.... The more you are in class, the more of the curve you receive. There is NO recording of class lectures allowed.

Expectations and Policies

Adding/Dropping a class

See University rules and dates on the web site

Late / Missed classes, assignments and exams

If you should miss a class, you are still responsible for any and all material covered in that class, so you should make an effort to get this material from a classmate.

An assignment may be turned in up to 1 week late, but the possible grade will be reduced by 1 grade level. After 1 week, the grade is a zero. There are no make-ups and extra credit in the course. Nothing can be handed in after the LAST <u>lecture</u> class.

If you have some valid reason for missing an exam, you must make arrangements **ahead of time** to take a make-up test. In the event of an emergency, you must notify me within 24 hours to make arrangements. Make-up exams will not be given after the exam is graded and returned, or after the last class.

Academic Integrity Policy

Academic dishonesty **of any type** will result in severe consequences. For full details on what constitutes such a violation, please refer to the university's <u>policy on academic integrity</u>. Consequences will include a written report to the Academic Integrity committee (which may require a hearing), and possibly a **0** for the assignment or exam in question, or an **F** in the course.

Most lab exercises will be performed with a partner. You are allowed to collaborate with this partner on these exercises, but not with members of other teams. For all other individual homework and programs you are expected to do your own work.

Under no circumstances should your programs be in the possession of another student. Both the author and the borrower will be deemed equally guilty if essentially similar work is handed in by more than one person or team.

Coursework Expectations Submission of work

In order to keep track of your work and the submission dates, all work will be submitted through the Blackboard Dropbox.

Programs/Labs will be submitted as normal text files (attached/uploaded) with the name extension of .c. Do not submit your code in a Microsoft Word document (this modifies and destroys your program). Please be careful not to submit one of the other files in your project folder, like the .sln file. You must include sample output from your program inside a comment at the end of your program. Make sure the program compiles clean after you add these comments.

Periodically, submissions on blackboard will be downloaded for grading. By using the My Grades feature on blackboard you will be able to check the status of your assignment submission, and eventually the recorded grade as well.

In this course which is 4 contact hours, you can expect between 6 to 9 hours of work per week outside of our classroom scheduled time.

Where to go for Help Facilities

The main PC computer lab for this course is Buckman 239. Hours will be posted for lab usage and teaching assistants will be available for help. The primary teaching assistants for this course will be announced shortly, but all assistants are able to help you in the lab.

Special Needs

Students with disabilities are encouraged to share, in confidence, information about needed specific course accommodations.

Miscellaneous

<u>REMEMBER</u>: You MUST be sure that your program compiles, runs and executes on the Microsoft Visual Studio 2010 before handing in your assignments. This will be the compiler that is used for grading....

Course Outline/Schedule:

See other document for schedule.