Module co-ordinator: Dr. Cristina Hava Muntean

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Focus of course:

- development skills using the C language
- concepts of functional decomposition ("sub-programs") and parameter passing (by value and by reference)
- structured data types
- pointers
- facilities of the C standard library
Syllabus:

- **Functions**
  Introduction, Definition, List of parameters, Return values, Function calls, Formal and actual parameters, “by-value” and “by-address” parameters, Local and global variables, Function declaration/prototype, Header files and libraries, Complex example, Laboratory exercises

- **Arrays**
  Introduction, Definition, Parsing, Complex example

- **Strings**
  Introduction, Definition, Input/Output, Using “string.h” library, Complex example

- **Files**
  Introduction, Operations with files, Complex example

- **Structures**
  Introduction, Definition, Simple example, Complex example, Laboratory exercises

- **Pointers**
  Introduction, Definition, Simple example, Complex example, Laboratory exercises

- **Applications**
  Numerical analysis, Cryptography, Structures handling, Pointer manipulation

Assessment:

- Laboratory Reports (20%)
- Final Exam (80%)
Course Structure:

- **Lectures** - 2 hours/week for 12 weeks
  - Wednesday: 13.00 - 14.00;
  - Thursday: 15:00 - 16.00

- **Tutorials** - 1 hour/week for 12 weeks
  - Monday: 17.00 - 18.00

- **Practicals** - 3 hours/every second week
  - Tuesday/ Wednesday: 9.00-12.00

Instruction Approach:

- Lectures
- Tutorials
- Text books
- Laboratory work
- Work on your own!

Links and E-mail addresses:

- Module EE105 notes:
  
  http://www.eeng.dcu.ie/~ee105

- EE105 talk e-mail list:
  
  ee105-talk@list.eeng.dcu.ie

- EE105 laboratory reports e-mail list:
  
  ee105-reports@list.eeng.dcu.ie

- EE105 exam e-mail list:
  
  ee105-exam@list.eeng.dcu.ie
Recommended Textbooks:


- **Hanly, Koffman and Horvath**, C Program Design for Engineers, Addison-Wesley, 1995