

CMSC104

Problem Solving and
Computer Programming
Fall 2009

Section 0401
Ms. Patricia Ordóñez Rozo

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Contact Information

- Who am I?
 - Patti Ordóñez Rozo
- Best way to contact me?
 - Email! patti.ordonez@umbc.edu
- Office hours:
 - Where? ITE 223
 - When? Tuesday and Thursday
10:00 a.m. - 12:00 p.m.

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Am I in the Right Class?

- CMSC 104
 - Assumes NO programming experience
 - Prepares you for CMSC 201
 - Does NOT count directly towards the CS major
 - Meets a requirement for other majors:
i.e. Physics, Financial Economics
- CMSC 201
 - Assumes some programming experience
 - First CMSC course for CS majors
 - MUCH more challenging

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CS Minor Requirements

- Total of 23 credits (7 classes)
- Required courses:
 - CMSC 201 – Comp. Sci. I for Majors
 - CMSC 202 – Comp. Sci. II for Majors
 - CMSC 341 – Data Structures
 - CMSC 203 – Discrete Structures (can use MATH 301 instead)

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CS Minor Requirements cont.

- Elective courses (9 credits):
 - 1 – 3 courses chosen from CMSC4xx
 - 0 – 2 courses chosen from:
 - CMSC 313 – Computer Org & Assembly
 - CMSC 331 – Principles of Programming Languages
 - MATH 221 – Linear Algebra
- Some example combinations:
 - CMSC313, CMSC331 and CMSC433
 - CMSC461, CMSC471 and CMSC472
 - CMSC461, CMSC331 and MATH221

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CS Gaming Track

- Web site: gaim.umbc.edu
- Not a separate degree just a “track” within the regular CS B.S. program
- Must complete all regular CS B.S. requirements plus...
- **Science courses must include**
 - PHYS 121: Introductory Physics I
- **GFR/GEP courses must include**
 - ART 380: History and Theory of Games (new course)

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CS Gaming Track cont.

- **CMSC 400-level electives must include**
 - CMSC 435: Computer Graphics
 - CMSC 471: Artificial Intelligence
 - CMSC 493: Games Group Project (new course)
 - and two of the following
 - CMSC 437: Graphical User Interface Programming
 - CMSC 445: Software Engineering
 - CMSC 455: Numerical Computation
 - CMSC 461: Databases
 - CMSC 481: Networks
 - CMSC 483: Parallel Processing
 - others with permission (contact olano@umbc.edu)

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What Will We Cover?

- General computer hardware and software concepts
- Basic computer use
- Problem solving
- Basic computer programming in the JavaScript programming language

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1. General Hardware and Software Concepts

- Introduction to computer architecture
- Data representation and memory usage
- Introduction to operating systems
Linux

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2. Basic Computer Use (New software for most of you!)

- Basic use of
 - an operating system (Linux)
 - e-mail (pine)
 - a Web browser (Firefox)
 - a text editor (XEmacs)

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3. Problem Solving

- Problem solving and algorithm development
 - general vs. specific solution to a problem
 - use of top-down design
 - use of pseudocode

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4. Basic Computer Programming

- Creating and executing a computer program
- Testing and debugging a computer program
- JavaScript programming language basics
- Introduction to C Programming

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Course Information

- On the Web:
 - www.cs.umbc.edu/104
- Follow links to Fall 2009 then Section 0401
- Refer to the site throughout the semester (e.g. Announcements on main page)

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Getting a myUMBC Account

- You MUST have a myUMBC account
- If you do not already have one, you can get one by going to:
- <http://accounts.umbc.edu> (NO www.)
 - Your account can be used in approximately ½ hour
- We will discuss how we are going to use it in future classes.

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Computer Science at UMBC

- CSEE Student Services Office (Advising)
 - ITE 203 - 206
- CSHC (Computer Science Help Center)
 - ITE 201E
- Linux Users Group (LUG)
 - <http://lug.umbc.edu>
- Computer Science Council of Majors (CSCM)
 - **President**
Matthew Kalkbrenner mkalk1@umbc.edu

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OIT Labs

- The Office of Information Technology is responsible for all lab computers.
- On Web at: www.umbc.edu/oit
- Labs with PCs:
 - ENG021, ENG104, ENG122, ENG122A, ENG333
- Labs may be on reserve for classes, so plan ahead!
- Print Dispatch -- ENG 019 (10? cents/page)
- Hours of Operations
 - OIT will post outside of labs or go to:
<http://www.umbc.edu/oit/classroomtechnology/labs>

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Consultants vs. Tutors

- OIT labs are staffed by consultants
 - using software (pine, Firefox, etc.)
 - some text editors (XEmacs)
 - operating system commands (Linux)
 - communicating with UMBC computers (TeraTerm)

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Consultants vs. Tutors (con't)

- CSHC is staffed by student tutors
 - Help with homework and projects
 - XEmacs and Linux questions
 - ITE 201E – Hours TBA – help might be limited this semester.

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Hardware and Software Needs

- Do I need my own computer?
 - No, but it is more convenient for you.
- If I have my own computer, can I use it?
 - Sure, but you will use it mostly to log in to your account or for word processing.
- Do I need to install Linux?
 - No, you will be able to do your work in Windows.

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Using Your Own Computer: SSH

- We will discuss this in much more detail in future classes. You do not have to download anything at this point!!
- TeraTerm is a software communications program
- Must be connected to the Internet to use
- Two sources for TeraTerm software:
 - OIT CD
 - Web: <http://www.umbc.edu/oit/software>
- Consult OIT for help

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Getting to Know You

- This class has students from many different backgrounds and majors.
 - ~15 different majors
- I'd like to find out a little bit about what you know. Please take out a sheet of paper.
 - Name, Major, and Year
 - Why are you taking this class?
 - Something you would like me to know about you...

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