

COMP 250

Introduction to Computer Science

Professor: Mike Langer

Who am I ?

See my webpage

google "Michael Langer McGill"

Who are you ?

B.Sc.	60	(large variety of programs)
[B. Eng.	30	
[B. Soft. Eng.	20	
B. Arts	5	
B. Arts & Sci	5	
B. Com.	5	
other ...	5	

Who are you ?

U0	15
U1 new	65
U1 returning	20
U2	20
U3	10
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	130

• Course web page (public)

- lecture notes, slides, exercises, etc

• WebCT (private)

- discussion boards
- submit assignments
- grades

Course Outline (PDF online)

- prerequisites
- lecture notes / slides
- evaluation
- academic integrity
- topics / schedule

Prerequisites

- COMP 202 or equivalent (intro programming in Java: variables, assignments, loops, arrays, objects, classes)

COMP 208 is not quite equivalent (Computers in Engineering: C, Fortran)

⇒ Some extra work required ASAP
See Course Outline for suggestions

(Unofficial Math) Prerequisites

- grade 12 math

e.g. $1 + 2 + 3 + 4 + \dots + n = \frac{n(n+1)}{2}$

$$1 + x + x^2 + x^3 + \dots + x^n = \frac{1 - x^{n+1}}{1 - x}$$

(Unofficial Math) Prerequisites

Logical reasoning and expression
what you think what you write

"Every car has a steering wheel."

≠

"Every steering wheel belongs to some car."

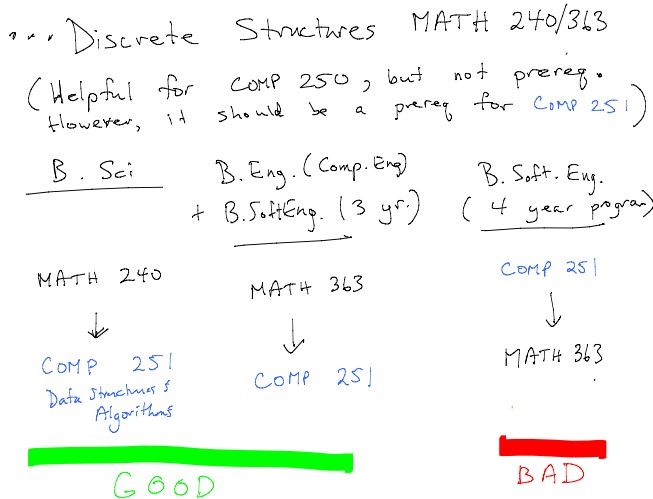
(also discussed "Car steering wheel")

(Unofficial Math) Prerequisites

Proof Techniques?

- by contradiction
- by induction

You will see some of this in 250.
 You will see more of it in your Discrete Structures/Math course



Lecture Notes / Slides

See course web page

(all slides from winter 2010 will be available for keepers)

Evaluation

- 4 x 10% Assignments
- 2 x 10% in class Quizzes
- 40% Final Exam
(optional 60% Final i.e. replace Quiz grades)

Academic Integrity (cheating)

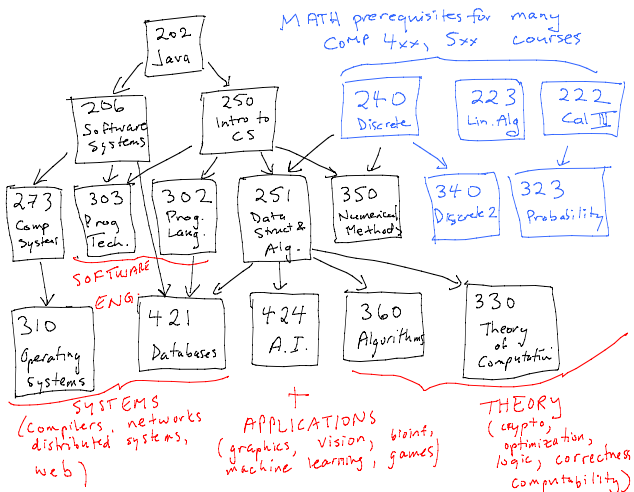
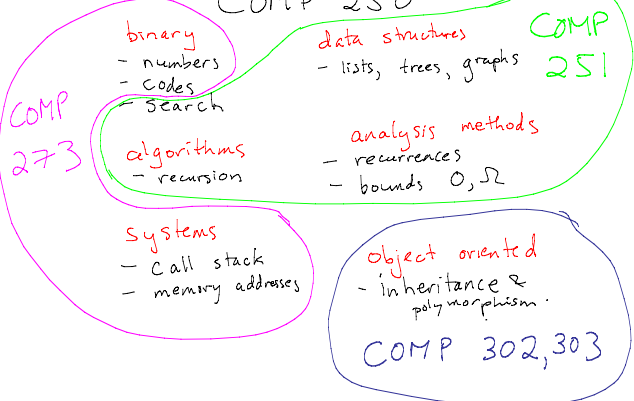
Assignments

- ✓ collaboration at early stages
 - ✓ helping to debug code
 - ✗ telling your friend how to solve it or posting the main idea on WebCT
- (rule of thumb - would you be comfortable if the discussion were public?)

COMP 250 TOPICS

- binary**
 - numbers
 - search
- data structures**
 - lists, trees, graphs
- algorithms**
 - recursion
- analysis methods**
 - recurrences
 - bounds O, Ω
- systems**
 - call stack
 - memory addresses
- object oriented**
 - inheritance & polymorphism

COMP 250



My Availability?

- MW after class (here, come see me)
- by appointment (send me email)