ISAT 252—Spring 2008 Course Syllabus

Analytical Methods IV: Programming and Problem Solving

# Course Description

Use of formal logic to represent and assess properties of natural language constructs important to scientific inquiry, with application to the development and use of knowledge-based systems; introduction to procedural programming and its uses for producing and tailoring information systems supporting scientific, technical and business problem solving. *Prerequisite: Sophomore standing or permission of instructor.*

# Course Goals

* To introduce the concept of “computational thinking” and get students comfortable with the use of a computer as a tool for doing scientific problem solving
* To introduce procedural (algorithmic) and object-oriented knowledge modeling (acquisition, representation, and programming)
* To introduce declarative (symbolic) knowledge modeling (acquisition, representation, and programming)
* To practice ongoing teaming, project management, presentation and analytical writing skills.

# Text, Software, and Materials

Schneider, David I. 2006. *An Introduction to Programming Using Visual Basic 2005, 6th Ed.* Prentice Hall, Upper Saddle River, NJ. ISBN: 0-13-030654-1

Visual Studio 2005. Download from:   
<http://msdn03.e-academy.com/elms/Security/Login.aspx?campus=jmu_cs>   
You should have received an email at the beginning of the year giving your username/password. In case you forgot or lost the email, your username is your full JMU email address.

A USB memory stick upon which to save work done in the labs.

# Common Exams

There will be three common exams for this course. They are currently scheduled for:

1. Wednesday, February 13th, 6:00PM
2. Wednesday, March 26th, 6:00PM
3. Wednesday, April 30th, 6:00PM

Location and format are still TBD.

# Assignments and Grading

Your grade will be determined as follows:

|  |  |
| --- | --- |
| Assignment | Points |
| 3 Exams @ 100pts/exam | 300 points |
| 13 Labs | 400 points |
| 2 Projects @ 100pts/project | 200 points |
| Participation, Homework, Quizzes, Miscellaneous | 100 points |
| Total | 1000 points |

# Course Website

<http://isat252.isat.jmu.edu>

Instructors may also use Blackboard or another online course management system. You are expected to check your email/Blackboard regularly (at least once a day) so as not to miss communications from your instructor.

# Make-Up Policy

There will be NO make-ups. A zero will be assigned for missed assignments.

# JMU Honor Code

Honor code violations will be dealt with strictly. For most assignments, collaboration is encouraged, although each individual is responsible for all material and must take exams without assistance.

# Important Dates and Deadlines

* **January 15th:**  End of drop period. “W” will apply after this date. Tuition refund deadline.
* **January 15th:** End of Add period. Instructor and Department Head signatures required after this date.
* **January 24th:** Last day to add classes with Instructor and Department Head signatures.