

# ITM 301 – Business Application Programming Section 001

Winter 2012

Tuesdays & Thursdays, 4:35-5:50pm.  
Fairlane Center South 170

**INSTRUCTOR:** Edward Williams  
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Blackboard email; email is the  
preferred method of contact  
**OFFICE HOURS:** Tuesdays before and after class;  
Thursdays before class

## GENERAL INFORMATION

### Class Web Site:

**Blackboard** (<http://blackboard.umd.umich.edu> or via Quicklinks from UMD and COB website) is the major place for class material and communication channel of class news. Use your UMID and its associated PIN to logon to the system. Please visit it often for class announcements and messages.

**Course Prerequisite:** ITM 120 or equivalent introduction (course and/or workplace) to fundamental computer concepts.

### Course Description:

This course is an introduction to basic concepts in computer programming with an emphasis on business applications. In the course, students will develop an understanding of fundamental programming logic and learn to use basic programming structures to solve business problems. Students are introduced to the object-oriented paradigm, program development cycle, and programming principles. The course covers basic concepts of object-oriented programming, principles of program design, programming structures, data types and structures, program testing, and debugging. Emphasis is placed on the implementation of programs with procedural structures, along with graphical user interfaces and event-driven code. Upon completion, students should be able to design, code, test, and debug programs based on business requirements using a selected programming language.

### Course Objectives:

ITM 301 provides both the content and the context unique to management information systems. In this course, we will take an in-depth look at some basic and advanced programming concepts and techniques. We will examine theoretical concepts that make the world of programming unique. Also, this course will adopt a practical hands-on approach when examining programming techniques. Along

with examining different programming strategies, this course will explore the advancement of program development, as well as timeless problem solving strategies which worked well long before computers were invented.

Upon completion of this course, you will have demonstrated an appropriated level of competency in the following:

- Utilize the Program Development Cycle
- Recognize the need for various data types and use them in Java™
- Understand basic programming concepts
- Recognize the need for programming structures and implement them in Java™
- Understand basic Object-Oriented Programming
- Document programs properly
- Implement proper program design using Java™

### **BBA Objectives:**

ITM 301 also provides the overarching *context* through which contemporary issues in ITM can be explored. Key BBA program learning objectives relative to context that will be addressed in ITM 301 are to:

- *Have a basic knowledge of information systems*  
Computer programs are the building blocks of information systems. Efficient programs and effective design are critical to information system success. The knowledge gained in this course will provide students a foundation for system design and implementation.
- *Develop effective interpersonal skills that will enable them to work with other individuals and within teams as either leaders or participants*  
Throughout the course interactive class activities will be used to encourage student participation. These activities promote independent thinking and working in groups when solving problems.
- *Use critical thinking skills to solve real or hypothetical business problems*  
All examples and exercises are business related problems in a simplified version. Students will be able to apply the same solutions to real-world problems.

## **COURSE MATERIALS**

### **Required Textbook:**

Gaddis, Tony. 2010. *Starting Out with Programming Logic & Design*, 2<sup>nd</sup> edition. Boston, Massachusetts: Addison-Wesley. ISBN-10: 0-13-607773-0. ISBN-13: 978-0-13-607773-2.

### **Java online resources:**

<http://java.sun.com/>: main place to find all things about Java, including the latest SDK.

### **Online Java tutorials:**

- <http://java.sun.com/learning/tutorial/index.html>

- <http://www.ibiblio.org/javafaq/javatutorial.html>
- These are just two examples, you can find out more on the Web.

### **Editors for Java:**

<http://www.editplus.com/>: editPlus is used in class and installed in College of Business computer laboratories (191, 192, 138). You can download and install a free trial version (60 days) on your own computer.

<http://www.jgrasp.org/>: jGrasp is a free editor, easy to download and install.

EditPlus and jGrasp are two examples of multi-purpose editors that can write and compile Java.

Java and editPlus are set up already in COB computer labs. You need to download and install them yourself if you want to use them on your own computer.

### **Other Materials:**

The instructor may provide handouts of various related topics in class.

## **COURSE FORMAT**

### **Lecture, Discussion, Activity, and Hands-On Practice:**

Learning occurs best in interactive environment with multiple approaches to teaching. In ITM 301, material is delivered not only through lecturing, but also, and more, in discussion, in-class activities (individual or group), and hands-on practice. Learning is reinforced by assessment, including assignments and examinations.

### **Programs:**

A total of four programs will be assigned, each worth 30 points weighted. These programs will serve to reinforce the concepts in the lectures and textbook. You will develop those programs in self-selected teams.

### **Examinations:**

There are three examinations in the course, 100 points each. All examinations will have closed-notes, closed-book short-answer essay questions and two (the second and the third) will have an open-book, open-notes programming task. Programming tasks require writing a segment or a complete Java program according to the problem statement. All examinations are necessarily **comprehensive**, but the emphasis in the second and third will be on the new material.

You will be permitted to bring:

- one 8.5"x11" *cheat sheet* of your own design
- pencils
- scratch paper will be provided
- **Makeup Examinations:** If you miss an examination because of an extraordinary circumstance, contact the instructor *as soon as possible*. Only those students with valid, externally documented excuses (e.g. bereavement, illness, jury duty, witness duty, business-mandated travel) will be allowed to take a makeup examination. Vacation plans (e.g., the purchase of airline tickets and/or the making of hotel reservations) are explicitly declared *invalid* reasons to request a makeup

examination. You should contact the instructor (by e-mail or telephone) no later than the first class meeting following the missed examination. If you expect to miss an examination, please discuss this with the instructor prior to the scheduled date. The format of the makeup examination will be at the choice of the instructor.

**Extra Programming Exercises:**

Throughout the semester, extra programming exercises may be handed out (posted in Blackboard) to help you study and practice outside the classroom. These exercises will not be collected and graded. Solutions may be provided. However, it is strongly recommended to make use of the exercises on your own. Sometimes, the exercises will be discussed during class for better learning results.

**Class Participation:**

To benefit most from this class, attendance, preparation and participation are very important. This class will provide a risk-free environment in which to explore issues and share experiences. Please be ready to participate fully. Some of the factors that will be considered in the evaluation of class participation include presence in class, preparation for class, enthusiastic and thoughtful participation in class activities (during classes or in online discussion), and persistence while working on class activities. Participation that helps other people learn the class material is especially valued and rewarded.

**COURSE EVALUATION**

	<b>Date</b>	<b>Major Focus</b>	<b>Points</b>
Exam One	9 February 2012	Chapters 1, 2, 3,4	100
Exam Two	15 March 2012	Chapters 5,6,7,8	100
Exam Three	19 April 2012	Chapters 9,10,14	100
Small programs (30*4)			120
Class participation (throughout)			10
<b>Total</b>			<b>430</b>

>=97%	A+
>=90%	A
80%-89.9%	B
70%-79.9%	C
60%-69.9%	D
<60% or cheating	E

The letter grading system (A, B, C, D, E) used in the College of Business will be used in this course. The following interpretation of this grading scale will be used to further help you understand the meaning:

A = Excellent work. (Assigned work is clearly-presented, thoughtful, insightful, and creative. The student has demonstrated that the course material has been thoroughly learned. The student has demonstrated the creative application of the course material to novel situations.)

B = Good work. (Assigned work is clearly-presented and thoughtful. The student has clearly demonstrated that the course material has been learned.)

C = Acceptable work. (Assigned work is completed and course standards are met. The student has clearly demonstrated that much of the course material has been learned.)

D = Marginally acceptable work. (Most of the assigned work is completed in a way that meets the course standards or all of the assigned work is completed in a way that almost meets the course standards. The student has clearly demonstrated that some of the course material has been learned.)

E = Unacceptable work. (The student has not clearly demonstrated that the course material has been learned, and/or is guilty of academic malfeasance.)

Grades of + and - may be used to recognize performance slightly different than these interpretations.

### **Other Class Administrative Information**

#### **Statement of Academic Integrity**

*“The University of Michigan – Dearborn values academic honesty and integrity. Each student has a responsibility to understand, accept, and comply with the university’s standards of academic conduct as set forth by the Code of Academic Conduct, as well as policies established by the schools and colleges. Cheating, collusion, misconduct, fabrication, and plagiarism are considered serious offenses. Violations will not be tolerated and may result in penalties up to and including expulsion from the University.”*

The Code of Academic Conduct: [http://www.umd.umich.edu/policies\\_st-rights/](http://www.umd.umich.edu/policies_st-rights/)

College of Business Statement on Academic Integrity:

[http://www.cob.umd.umich.edu/fileadmin/template/som/files/undergrad/statement\\_academic.pdf](http://www.cob.umd.umich.edu/fileadmin/template/som/files/undergrad/statement_academic.pdf)

In our class, submitting any work done by another person as your own, in any context, is considered a violation of academic honesty and integrity. This is a serious offense, punishable by a failing grade in this course and/or suspension or expulsion from the University.

You are expected to abide by all aspects of the Statement of Student Rights and Code of Student Conduct in this course. It is assumed that you have a copy and have read and understand this code. If not, it is contained in the Undergraduate Announcement as well as the Student Handbook. Further, you are expected, especially as information systems professionals in training, to respect campus computer resources and to use them productively and wisely.

#### **Course Attendance:**

An underlying assumption of this course is that students will attend and actively participate in all classes. Please plan to arrive on time and remain in class until the end of the class session. Students are solely responsible for the content and/or course announcements during missed classes. You cannot participate if you are not in class, and I cannot teach an empty chair. A drink and/or snack, quietly eaten, will be countenanced. It would be appreciated if you do not leave class early! If you will have to leave early for any reason, just let me know before class and then sit near the door in an aisle seat! Cellular telephones are to be *silent* during class. If you receive an *emergency* incoming call via *vibration*, please leave the classroom quietly and unobtrusively to answer it, and return to the classroom likewise.

**Email Account and Responsibilities:**

Each of you has received a UM-Dearborn email account. It is your responsibility to read email messages sent to this account. A majority of the communication will take place in the Blackboard course pages, so please familiarize yourself with them and build a habit of checking them frequently. In case of emergency, I will send out emails to both UMD and blackboard addresses. I check both Blackboard and UMD email each weekday and Saturday unless ill or otherwise indisposed.

Questions explicitly pertinent to the course material and hence of likely interest to the entire class (e.g., how to undertake a certain task in Java) should be posted on the Blackboard site. More individual questions or issues (e.g., notifying me of a problem such as illness, business travel, or bereavement) should be handled via electronic mail.

**Accommodations for Students with Disabilities:**

The University will make reasonable accommodations for persons with documented disabilities. Students need to register with Disability Resource Services (DRS) every semester they are enrolled for classes. DRS is located in Counseling & Support Services, 2157 UC. To be assured of having services when they are needed, students should register no later than the end of the add/drop deadline of each term.

**Inclement Weather (313)-436-9157 and Campus Closure**

Information on whether the campus is open or closed due to inclement weather or for any other emergency situation is always available by calling the Campus Closure Information Line: **(313) 436-9157**. The impact of an official campus closing on the course schedule will be communicated with students via Blackboard email. If the University officially closes due to poor weather conditions (or any other reason) on the day of an examination (other than the third examination), the examination is automatically rescheduled for the next scheduled in-class period.

**HOW TO STUDY****Course Approach:**

Course materials will give you multiple ways to learn the material presented in this course. The textbook will provide one source of information. Lectures will be based on and extend the textbook. I plan to provide audiovisual "how-to" files on Blackboard. Computing labs and tutorials give you an opportunity to learn the tools using a hands-on approach. You should take the opportunity to apply course material on your personal computer or in one of the campus computer labs. The instructor will be available at scheduled times to assist you.

The course schedule lists reading materials associated with each day's lecture. You are expected to have completed the assigned readings prior to class. The instructor will generally work under that assumption. While at times the instructor will reiterate some of the material in the readings to clarify points, he will also take the subject matter to the application level. In order to do this effectively, you must have read the material before class. Throughout the semester, each period of class meeting will be divided into two parts: 1) concept and discussion, and 2) hands-on practice and exercise.

The instructor expects a professional demeanor from you during our interactions. The instructor expects you to be as articulate, respectful, and forthcoming to me as you would your employer. The instructor considers your relationship to be one of Manager/Employee as well as Teacher/Student. This can be applied in several ways. For example, when a student offers an excuse for a missed or late assignment, the instructor views it as an employee missing a deadline or failing a task. UM-Dearborn graduates are known for being exceptional employees who generally move into management and leadership positions. The instructor has an obligation to those that recruit from University of Michigan – Dearborn to produce students who will be the type of employees they expect.

### **Study Recommendations.**

Each of us has developed study methods as we have worked our way through school (up to and including the perfection of the "all-nighter"). Each of you knows best how to study given your habits, personality, learning style, etc. Even so, the instructor believes it is useful to share study methods previous students have found to be effective.

- You are encouraged to outline each chapter as you read it. The instructor may post a version of her lecture notes on the class web page for you to download and print prior to class. The intent here is to create a mechanism for more effective note taking during class and an aid in your studying.
- As you read the textbooks, pay close attention to the bold-faced terms and figures. The textbook for this course has excellent visual material.
- While material in the notes contain information that the instructor believes is especially important, it is not wholly indicative of test material and should not be your only study aid.
- Please make full use of exercises at the end of each chapter and extra programming exercises handed out in class.

### **Acknowledgment**

This syllabus is in large measure the creation and intellectual property of Professor M. Guo; her permission (indeed, encouragement) to use it is gratefully acknowledged.