

**Missouri University of Science & Technology**  
**Department of Business and Information Technology**

**Department Mission:**

*“Capitalizing on the strong technological emphasis of Missouri University of Science & Technology (S&T), the Department of Business and Information Technology prepares professionals for careers in modern business organizations. The Department emphasizes management through technology with particular focus on information systems and their application in a fast-changing, global and competitive environment.*

*Through innovative instruction and research, the Department serves the economic interests of industry and the evolving needs of society. The Department provides distance education opportunities utilizing advanced learning technologies”*

**Course:** IST 151

**Days and Times:** MWF 9:00-9:50

**Semester:** FS 2013

**Room:** Toomey 251

**Instructor’s Name:** Carla Bates

**Office Phone:** 573-341-6078

**Web Locations:** Blackboard

**Office Hours\*:** Mon, Wed, Fri 10:00 – 11:00 a.m. or Thurs 1:00 – 3:00 p.m.

*\*I am willing to help you anytime outside of office hours. Stop by the office, email me, or submit your assignment to the Need Help? assignment and email me.*

**Office Location:** 101 Computer Science

**Email:** carla@mst.edu

**COURSE INFORMATION**

**Catalog Description:** Continuation to object-oriented programming in the context of developing and implementing the various components of an information system with particular attention given to database incorporation. Class will include numerous projects covering intermediate topics.

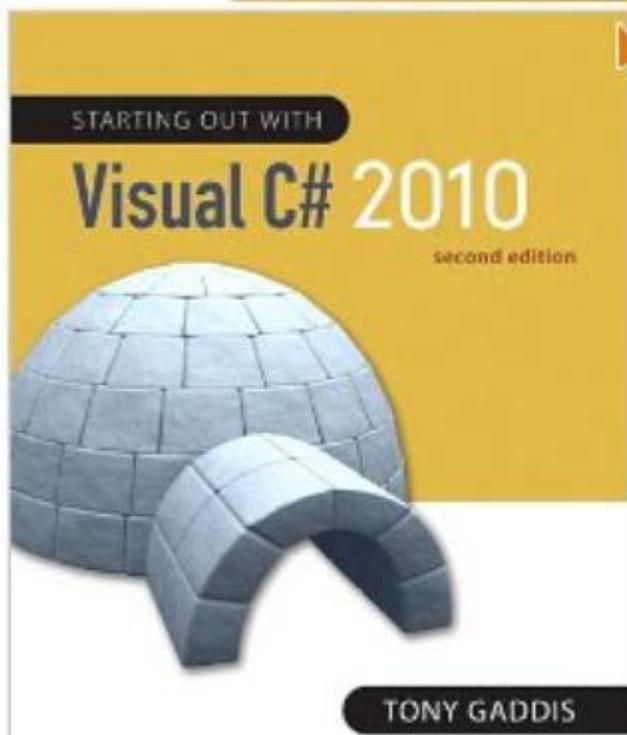
**Prerequisite:** IST 51\*\*\*

*\*\*\*If you substituted another course for IST 51 and it wasn’t visual C# using Microsoft Visual Studio, I strongly suggest to look through the first 9 chapters of the book.*

**Extended Description:** Information systems are the focus of the Information Science and Technology department. An information system is a large set of programs and interfaces that provide timely data for business operations and decision making requirements. There are many important aspects of information systems common to most commercial implementation. This course will introduce students to the Visual C# language in the context of implementing an information system. In particular, IST 151 focuses on the issues of implementation surrounding the system data layer. This layer will be composed of file structures as well as relational databases.

**Course Prerequisites:** IST 51

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**Required Materials:** *Starting out with Visual C# 2010. Second Edition. Tony Gaddis. ISBN: 0-13-216545-7 or 978-0-13-216545-7.*

**Instructional Methods:** The instruction is a combination of lecture and laboratory. The lectures will be used to teach important concepts, definitions, and techniques. The labs will be highly interactive and directed experiences allowing a hands-on approach to learning the programming exercises. Tegrity will be used to record lectures when I will be out of town. The Tegrity videos are provided to be viewed by students enrolled in this course and are not to be shared or altered.

**Course Learning Objectives:**

	Program Learning Objectives				
	Oral Communication	Written Communication	Critical Thinking	Information Technology	Teamwork
<b>Course Objectives</b>					
Understand the various components of an information system and their role in a corporate organization	X	X	X	X	
Learn how to use the Visual C#.NET environment to build information system components		X	X		

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Understand and utilize basics of object-oriented design and how it relates to .NET Framework			<b>X</b>	<b>X</b>	
Integrate databases into Visual C# programs using ADO.NET			<b>X</b>	<b>X</b>	
Master the core programming concepts with regards to the manipulation of data fields			<b>X</b>	<b>X</b>	
Learn to read simple programming requirement documents		<b>X</b>			

**COURSE ASSIGNMENTS**

**Homework/Labs (50 or 100 points each):** Homework and computer laboratory assignments will be made frequently. They are expected to be completed separately. You are allowed to receive help from friends or classmates, but there **must** be differences (different filenames, object names on form, variables, etc.). If I have homework that is identical between students, all students involved may receive a 0 for that assignment and the Office of Undergraduate Studies will be notified (See **Academic Integrity Statement** below). Homework and lab exercises are to be completed before the specified date and time and uploaded to BlackBoard in the Assignments tab. Late homework or lab exercises will receive a 10% reduction for each day late with a maximum of up to 3 days late. **NO** assignments will be accepted more than 3 days late. A zero will be given for any assignment not posted within the deadline. **Please DO NOT ask after the 3 day grace deadline.**

**Quizzes/In-Class Assignments (10 points each):** We will have regular quizzes and in-class assignments. Quizzes will be administered at the **start** of the class and will be multiple-choice. The quizzes will not be available more than 5 minutes after the beginning of class. These will use the Blackboard assessment tool and your score will be posted immediately. They will be open notes and book but must be taken in class that day.

Along with quizzes, we will also have some in-class assignments. The in-class assignments will not have to run without errors, but **MUST** be submitted within 10 minutes of the end of class.

Combining quizzes and in-class assignments, we will have more than 20, but only the best 20 will be used to calculate your grade (this will allow you to miss a few classes without your grade suffering).

**Examinations:** The midterm and final will consist of two parts, a debugging exercise and a programming exercise. When working in a business environment, you will be expected to debug your own code as well as other people's code so this qualification is important.

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**COURSE POLICIES AND GRADING**

**Grading Breakdown:** Grades will be based on total points, as defined below. I will **NOT** round your final grade up at all if you miss **ANY** assignments. If you do complete every assignment and attend most classes, I will be **generous** about rounding up. So, it will benefit you to attend class and complete **EVERY** assignment.

I have added 5 extra credit points on every assignment. It is suggested that you take advantage of these extra credit points on each assignment. Please do not ask me at the end of the semester for extra credit opportunities. *Note: Remember in-department students, a C is a passing grade.*

**Attendance:** Attendance is strongly encouraged, particularly as the quizzes and assignments will be based on the important definitions and concepts presented in the lectures. You will likely want to ask questions. The class moves quickly and it is **easy to fall behind and not get caught up**. The more you miss class, the more material will be foreign to you and more difficult to complete your assignments.

If emergency circumstances arise, please contact the instructor as soon as possible to avoid penalties, and to try to catch up to the rest of the class.

**Academic Integrity Statement (<http://registrar.mst.edu/academicregs/index.html>):** Violations of the University's academic code include, but are not limited to, possession of or use of unauthorized materials during quizzes or tests; providing unauthorized information to another student; or copying the work of another person. Violations may result in academic penalties in addition to receiving an "F" on the assignment in question. (See page 30 of Missouri S&T's "Student Academic Regulations" handbook for further details about student standards of conduct relative to the system's Collected Rules and Regulations section 200.010).

**Academic Alert System: (<http://academicalert.mst.edu>):** Missouri S&T is committed to the success of its students by providing an environment conducive to teaching and learning. To ensure that every student takes full advantage of the educational opportunities and support programs on campus, the University has implemented an Academic Alert System, a web-based application. The purpose of the System is to improve the overall academic success of students by:

- Improving communication between students, instructors, and advisors;
- Reducing the time required for students to be informed of their academic status;
- Informing students of actions they need to perform in order to meet the academic requirements in the courses they are taking.

To assist you, I will initiate an academic alert for students who are not meeting academic course requirements through poor performance on assignments or poor attendance. When an alert is initiated, an email is immediately sent to the instructor, student, and

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advisor. You are encouraged to respond quickly to all academic alerts. If you fail to open the alert within one week, email notification is sent to your advisor.

**Disability Support Services (<http://dss.mst.edu/>):**

If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Services staff send a letter to me verifying your disability and specifying the accommodation you will need before I can arrange your accommodation. If you have a disability that might require academic accommodations, please visit Disability Support Services in 204 Norwood Hall (341-4211; [dss@mst.edu](mailto:dss@mst.edu)) very early in the semester.

**Classroom Egress Maps (<http://registrar.mst.edu/links/egress/>):**

Please familiarize yourself with the classroom egress maps posted on line so you will know where emergency exits are located.

**LEAD Learning Assistance (<http://lead.mst.edu>)**

The Learning Enhancement Across Disciplines Program (LEAD) sponsors free learning assistance in a wide range of courses for students who wish to increase their understanding, improve their skills, and validate their mastery of concepts and content in order to achieve their full potential. LEAD assistance starts no later than the third week of classes. Check out the online schedule at <http://lead.mst.edu/assist>, using zoom buttons to enlarge the view. Look to see what courses you are taking have collaborative LEAD learning centers (bottom half of schedule) and/or Individualized LEAD tutoring (top half of the schedule). For more information, contact the LEAD office at 341-7276 or email [lead@mst.edu](mailto:lead@mst.edu).

**Evaluation Methods:** Assignments, daily quizzes/in-class assignments and examinations as seen below.

Assessment	Description	Points	Number	Total Points
Assignment 1	Menu Application	50	1	50
Assignment 2	Reading and Modifying a Comma Separated Variable File	100	1	100
Assignment 3	Creating Databases in Access	50	1	50
Assignment 4	Reading Information from a database	100	1	100
Assignment 5	Updating Information in a database	100	1	100
Assignment 6	Validating data before inserting into a database	100	1	100
Examinations	Debugging Exams	50	2	100
	Programming Exams	100	2	200
Daily Quizzes / In-Class Assignments	Quizzes over the Reading Material and Lectures	10	20	200
				<b>1,000</b>

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**Grading Scale:**

- A: 100% - 90%
- B: 89% - 80%
- C: 79% - 70%
- D: 69% - 60%
- F: Below 59%

**COURSE OUTLINE**

The course will proceed as follows. This schedule is a best estimate. We may drift a bit from it.

It should be made clear that you are expected to work on the assignments outside of class. Pieces of the assignments will be worked during lectures and we will have some lab time for each assignment, but you will need time to bring them closure. Plan on a couple of hours outside of class for each hour spent in class.

Lecture Week	Topics	Reading (Ch. & Section)
1	Preliminaries, Review of basic programming constructs, loops, and characters/strings. Tegrity introduction	Loops: (5.1-5.5); Character and strings (8.2); Arrays & Lists (Chapter 7)
2	Menu Systems; OpenDialog/SaveDialog	Appendix B (Page 727-733); Chapter 5 (5.7)
3	Using Files for Data Storage	Chapter 5 (5.6) ; posted material
4	Using Files for Data Storage	
5	Using Files for Data Storage	
6	Using Files for Data Storage	
7	Mid-term	
8	Databases	posted material
9	Databases	Chapter 11; posted material
10	Databases	
11	Databases	
12	Databases	
13	Validating data	Posted material
14	Validating data	
15	Work on final Programming and Debugging	Notes will be posted
Final	Programming/Debugging	