



## **BUSA 523 Business Analytics Programming 01-W SYLLABUS: Fall 2015**

**Instructor:** Dr. Bob Folden

**Office Location:** BA 336B

**Office Hours:** Tuesday & Thursday 10:00 am - 12:00 pm & 1:00 pm - 2:00 pm

**Office Phone:** Office (903) 468-6053 (email is the best way to contact me)

**University Email Address:** [Bob.Folden@tamuc.edu](mailto:Bob.Folden@tamuc.edu)

**Preferred Form of Communication:** **Email is the best way to contact me**

**Communication Response Time:** Usually 24 to 48 hours except weekends and holidays.

### **COURSE INFORMATION**

#### **Textbook(s) Required**

*Problem Solving and Programming Concepts. Maureen Sprankle & Jim Hubbard, 9th edition, 2012. ISBN: 0-13-249464-4*

*Discover ABAP (2nd Edition). Kuhnhauser, Karl-Heinz & Franz, Thorsten, 2nd Edition, 2011. ISBN: 978-1-59229-402-2*

#### **Course Description**

In this course, you will gain both an understanding of and the ability to work with programming languages. They are the fundamental tool of business in today's marketplace. You will also gain facility in using the ABAP language in the SAP ERP platform to interface with the SAP ERP system.

#### **University Catalogue Description**

An introduction to the program development and design process, including computer-based concepts of problem-solving, structured programming logic and techniques, algorithm development and program design. Topics include program flowcharting, algorithms, input/output techniques, looping, modules, selection structures, file handling, control breaks, pseudocoding, and user documentation. Offers students an opportunity to apply skills in a laboratory environment.

#### **Additional Course Description**

Programming is a fundamental skill for technology workers. Most will never be fulltime programmers, but they will need to understand the process to be able to work well with those who do program on a fulltime basis.

*Syllabus/schedule subject to change*

## Student Learning Outcomes

Students will:

1. Describe various problem solving techniques and the concept of programming language.
2. List the steps in the program development method and identify various programming elements.
3. Identify decision-making constructs and looping constructs and demonstrate their appropriate use.
4. Differentiate between subroutines and functions as well as identify the techniques for parameter passing.
5. Identify the use of arrays, pointers and binary trees.
6. Differentiate between subroutines and functions as well as identify the techniques for parameter passing.

## COURSE REQUIREMENTS

### Instructional / Methods / Activities Assessments

### ASSIGNMENTS

You will have six (6) assignments. You will need to complete the assignment in a word processing document and submit it in the proper drop box provided. Failure to follow the directions provided will result in a lowering of the grade. These are to be done independently. You may consult with one another, but each of you is to do their own work.

### DISCUSSIONS:

In this course, you will be expected to participate in Discussions regularly. Professional communication is always expected. In order to achieve the maximum number of points for your Discussion grade, please answer each thread on three separate levels:

- 1) Answer the posted question (10 points);
- 2) Respond to other's posted answers (6 points);
- 3) Reply to any persons who have responded to you (4 points).

YOU ARE TO CONSIDER THE QUESTION OR TOPIC AND POST AN APPROPRIATE RESPONSE. YOU SHOULD SUPPORT YOUR RESPONSE WITH **EXTERNAL SOURCES (NOT TEXTBOOKS)** WHENEVER APPROPRIATE. I WILL GRADE YOUR RESPONSES BASED UPON THE QUALITY OF THE RESPONSE, INCLUDING WHETHER IT IS SUPPORTED FROM EXTERNAL SOURCES. ALL SUPPORT SHOULD INCLUDE ALL OF THE APPROPRIATE ELEMENTS AS IDENTIFIED IN THE APA STYLE MANUAL.

**This is to be an attempt to create a seminar environment where you will be able to increase one another's knowledge of the subject. You should visit this area at least once a week to read the material and respond appropriately. You may add information at a later time as you would in a regular discussion.**

## PROGRAMMING ASSIGNMENTS

There are basically six (6) assignments, one for each unit. While they may take some time, you should be able to complete them in the allotted time, but you should not leave them to the end. You will be graded on the quality of the work performed and not the quantity. I have an idea of what I expect for each assignment and that is what I will use to grade your work. None of the assignments require programming experience or knowledge. All the information that you need to complete the assignments will either be found in the text or can be easily looked up online. You will do your best if you read the assignment before reading your text, allowing you to seek solutions while you are reading.

## ESSAY EXAMS

There are six (6) essay exams that must be completed during the semester. Each exam is a single question. You are to answer them in as much detail as possible. **You should support your answers from the literature not your textbook.** Your support must come from sources other than course textbooks. You must document your sources or you may receive a zero for any work submitted. You may work offline to complete the exams and then copy and paste your answers into the appropriate space. You must submit them by the due date. I would recommend that you pace yourself so that you are not doing them all at one time. Your grade will be determined on the basis of the quality of your answer and not on the basis of quantity of answer.

**These answers are to be solely your own effort. You are not to collaborate with other students or use another individual's or group's work without proper citation.**

**Essay Exam 1:** Discuss the steps in the program development method. Identify the important principles and processes that are accomplished in each step. Provide an example of each one.

**Essay Exam 2:** Discuss internal and external documentation. Include their purposes and the kind of information one would find in each.

**Essay Exam 3:** Do the methods used to process data in a program change as the quantity of data increases? Why or why not?

**Essay Exam 4:** Why have RDBMSs become a necessary staple for all enterprises and most businesses? How do they improve the performance of the business? Support your answer.

**Essay Exam 5:** With all of the advantages of OOP, why is a procedural language like COBOL still the most prominently used language in business today? Please support your answer from the literature.

**Essay Exam 6:** What kind of file processing is appropriate for game design? Why?

**Extra Credit:** What type of data might be useful to a community in the wake of a natural disaster? Who should pay for the expense of gathering, storing, and maintaining this data? Where would this data be gathered from? How would you validate the data.

## **ABAB PROGRAMMING PROJECTS:**

You will complete six (6) SAP ABAP projects to demonstrate your ability to use the ABAP application in the SAP ERP system to develop an understanding of programming fundamentals. This is a demonstration of how one would go about adapting a complex system like SAP ERP to fit with the vagaries of companies around the world. For the most part they will be a step by step guided exercise to help you gain an understanding in how a program is developed and tested in SAP. They will also help you to understand how we use the different programming elements to produce a business information system.

### **Student Responsibilities**

## **DEALING WITH TECHNICAL ISSUES**

It is inevitable to have technical issues when dealing with technical subjects. In a perfect world, those would not happen and we could just do the work and everything would turn out fine. In an even more perfect world, systems would intuit what we wanted them to do and just do it. The fact is that we don't live in either of those worlds. Systems often do not work and we have to do our best to troubleshoot the problems and solve them. Sometimes we have good-to-great tech support to help us, but even that is more of an illusion than a fact. In order to really learn, you must experience obstacles and spend enormous amounts of energy to overcome them. A certain amount of frustration is involved in dealing with obstacles to system performance. While I attempt to minimize it, it is not possible to eliminate it.

For some of you this course may provide a great many obstacles and much frustration. I am sorry for that, but it cannot be avoided with the tools and technology at our disposal today. However, in an attempt to help you learn from the experience, I would like to offer the following solution.

For every assignment that you were unable to complete for technical reasons, you would need to create a problem discussion document that would include the following elements:

1. A clear description of the problem that you encountered with a full description of your computer system, including your network and internet connection information. (This information will help us to identify possible local causes for the difficulty)
2. A discussion of the steps that you took leading up to the problem (with screen shots to support your actions). (This will help us to see what you did and how the system responded. With this information, we can begin to develop a repeat of the problem so that we can overcome it.)
3. Steps that you took to find solutions to the problem (with screen shots to support your actions).
4. Descriptions of online searches, books referenced, etc. to find a solution to your problem.
5. A discussion of what you see as the nature of the problem after all of your work.
6. A discussion of lessons that you learned from the activity.

This should be included in a single word processing document and placed in the appropriate drop box for the assignment.

Your grade for the assignment will be based upon the thoroughness of your effort to resolve the problem.

## GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

### Assessments

Six Assignments @ 300 points	1,800
Twenty Discussions @ 20 points	400
Six Essay Exams @ 100 points	600
6 SAP ABAP Projects @ 200 points	1,200
<b>Total Points Possible</b>	<b>4,000</b>

**You will submit your work through eCollege.**

## TECHNOLOGY REQUIREMENTS

- To fully participate in online courses you will need to use a current Flash enabled browser. For PC users, the suggested browser is Google Chrome or Mozilla Firefox. For Mac users, the most current update of Firefox is suggested.
- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site](http://www.java.com/en/download/manual.jsp)  
<http://www.java.com/en/download/manual.jsp>

- Current anti-virus software must be installed and kept up to date.
- Run a browser check through the Pearson LearningStudio Technical Requirements website. [Browser Check](http://help.ecollege.com/LS_Tech_Req_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset) [http://help.ecollege.com/LS\\_Tech\\_Req\\_WebHelp/en-us/#LS\\_Technical\\_Requirements.htm#Browset](http://help.ecollege.com/LS_Tech_Req_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset)

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - [Adobe Reader](https://get.adobe.com/reader/) <https://get.adobe.com/reader/>
  - [Adobe Flash Player](https://get.adobe.com/flashplayer/) (version 17 or later) <https://get.adobe.com/flashplayer/>
  - [Adobe Shockwave Player](https://get.adobe.com/shockwave/) <https://get.adobe.com/shockwave/>
  - [Apple Quick Time](http://www.apple.com/quicktime/download/) <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Microsoft Access is the standard database management system software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.
- For additional information about system requirements, please see: [System Requirements for LearningStudio](https://secure.ecollege.com/tamuc/index.learn?action=technical) <https://secure.ecollege.com/tamuc/index.learn?action=technical>

## ACCESS AND NAVIGATION

### Pearson LearningStudio (eCollege) Access and Log in Information

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to [myLeo](http://www.tamuc.edu/myleo.aspx). <http://www.tamuc.edu/myleo.aspx>

**You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).**

It is strongly recommended that you perform a “Browser Test” prior to the start of your course. To launch a browser test, login to Pearson LearningStudio, click on the “My Courses” tab, and then select the “Browser Test” link under Support Services.

### Pearson Learning Studio Student Technical Support

Texas A&M University-Commerce provides students technical support in the use of Pearson LearningStudio.

Technical assistance is available 24 hours a day/ 7 days a week.

If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certain material, etc.) please contact the Pearson LearningStudio Help Desk, available 24 hours a day, seven days a week.

The student help desk may be reached by the following means 24 hours a day, seven days a week.

- **Chat Support:** Click on '*Live Support*' on the tool bar within your course to chat with a Pearson Learning Studio Representative.
- **Phone:** 1-866-656-5511 (Toll Free) to speak with Pearson Learning Studio Technical Support Representative.

**Accessing Help from within Your Course:** Click on the '*Tech Support*' icon on the upper left side of the screen inside the course. You then will be able to get assistance via online chat, email or by phone by calling the Help Desk number noted below.

**Note:** Personal computer problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, an Internet cafe, or a bookstore, such as Barnes & Noble, etc.

### **Policy for Reporting Problems with Pearson LearningStudio**

Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure **MUST** be followed:

1. Students must report the problem to the help desk. You may reach the helpdesk at [helpdesk@online.tamuc.org](mailto:helpdesk@online.tamuc.org) or 1-866-656-5511
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and to provide me with the helpdesk ticket number
4. At that time, I will call the helpdesk to confirm your problem and follow up with you

**PLEASE NOTE:** Your personal computer/access problems are not a legitimate excuse for filing a ticket with the Pearson LearningStudio Help Desk. You are strongly encouraged to check for compatibility of your browser **BEFORE** the course begins and to take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform. **ONLY** Pearson LearningStudio based problems are legitimate.

## Internet Access

An Internet connection is necessary to participate in discussions and assignments, access readings, transfer course work, and receive feedback from your professor. View the requirements as outlined in Technology Requirements above for more information.

## myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu) or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at [myLeo](https://leo.tamuc.edu). <https://leo.tamuc.edu>

## Learner Support

Go to the following link [One Stop Shop](#)- created to serve you by attempting to provide as many resources as possible in one location.  
<http://www.tamuc.edu/admissions/onestopshop/>

Go to the following link [Academic Success Center](#)- focused on providing academic resources to help you achieve academic success.  
<http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/>

## FREE MOBILE APPS

The Courses apps for phones have been adapted to support the tasks students can easily complete on a smaller device. Due to the smaller screen size course content is not presented.

The Courses app is free of charge. The mobile Courses Apps are designed and adapted for different devices.

	<b>App Title:</b>	<b>iPhone</b> – Pearson LearningStudio Courses for iPhone <b>Android</b> – LearningStudio Courses - Phone
	<b>Operating System:</b>	<b>iPhone</b> - OS 6 and above <b>Android</b> – Jelly Bean, Kitkat, and Lollipop OS
	<b>iPhone App URL:</b>	<a href="https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8">https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8</a>
	<b>Android App URL:</b>	<a href="https://play.google.com/store/apps/details?id=com.pearson.lsphone">https://play.google.com/store/apps/details?id=com.pearson.lsphone</a>

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

- View titles/code/Instructor of all Courses enrolled in online
- View and respond to all discussions in individual Courses

- View Instructor Announcements in individual Courses
- View Graded items, Grades and comments in individual Courses
- Grade to Date
- View Events (assignments) and Calendar in individual Courses
- View Activity Feed for all courses
- View course filters on activities
- View link to Privacy Policy
- Ability to Sign out
- Send Feedback

## **COMMUNICATION AND SUPPORT**

### **Interaction with Instructor Statement**

You are welcome to discuss any topic with the Instructor. You may come by during office hours or arrange for a more suitable time with the Instructor. I operate with an open door policy and welcome students to come to visit. I am even willing to help resolve technical issues with your computer system, I just need to have access to it or clear explanation of the problems presented.

## **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

### **Course Specific Procedures**

<sup>+</sup> **Assignments are due 2400 hours (midnight) of the date that they are assigned.**

### **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### **University Specific Procedures**

#### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See current Student Guidebook).

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette](http://www.albion.com/netiquette/corerules.html)  
<http://www.albion.com/netiquette/corerules.html>

#### **ADA Statement**

#### **Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with

disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

**Office of Student Disability Resources and Services**

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [Rebecca.Tuerk@tamuc.edu](mailto:Rebecca.Tuerk@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

**Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## COURSE OUTLINE / CALENDAR

Unit	Date	Reading Assignment	Assignment
1	September 7	Chapter 1	Discussion 1 Assignment 1
	September 14	Chapter 2	Discussion 2 ABAP Project 1
	September 21	Chapter 3	Discussion 3 Essay Exam 1
2	September 28	Chapter 4	Discussion 4 Assignment 2
	October 5	Chapter 5	Discussion 5 ABAP Project 2
	October 12	Chapter 6	Discussion 6
		Chapter 7	Discussion 7 Essay Exam 2
3	October 19	Chapter 8	Discussion 8
		Chapter 9	Discussion 9 Assignment 3
	October 26	Chapter 10	Discussion 10
		Chapter 11	Discussion 11 ABAP Project 3
	November 2	Chapter 12	Discussion 12 Essay Exam 3
4	November 9	Chapter 13	Discussion 13 Assignment 4
	November 16	Chapter 14	Discussion 14 ABAP Project 4 Essay Exam 4
5	November 23	Chapter 15	Discussion 15 Assignment 5
	November 30	Chapter 16	Discussion 16 ABAP Project 5 Essay Exam 5
6	December 8	Chapter 17	Discussion 17 Assignment 6
		Chapter 18	Discussion 18
	December 14	Chapter 19	Discussion 19 ABAP Project 6
		Chapter 20	Discussion 20 Essay Exam 6