Blackboard Business Continuity White Paper

Prepared for Maricopa Community College District

By

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Introduction

Maricopa Community College District (MCCCD) consisting of ten community colleges and satellite locations utilizes learning management systems (LMS) to deliver course content in a variety of modalities ranging from traditional brick and mortar classroom delivery to completely Web-based online delivery. Of the ten community colleges, eight utilize the Blackboard learning management system, one utilizes the WebCT learning management system, and one utilizes a custom developed learning management system. Prior to the acquisition of Blackboard, many of the colleges utilized a custom developed learning management system called Midas.

In the early stages of usage, these systems were hosted by individual colleges. However, as MCCCD became more integrated, the need to consolidate these systems became evident in order to provide students access to course materials regardless of the college they were attending and to take advantage of the economics of central management and support of a single hardware/software platform.

Adoption of learning management systems continued to increase at a rapid rate. In 2005, MCCCD discontinued use of the Midas system due to escalating support costs and migrated Midas course content to the Blackboard LMS. These two events led to an increasing demand on several key resources (network, hardware, software, and human). Although the system had acceptable uptime statistics, failures occurred for a variety of reasons and occurred at very inopportune times. Failures affected faculty, students, and support staff and in 2006, discussions regarding the viability of Blackboard led to a decision to consider the outsourcing of hosting Blackboard to Blackboard Corporation. In 2007, the decision was made to outsource the hosting of Blackboard for the fall semester of 2008.

As in any Web-base application, there are numerous components that must function together in order for the system to properly operate. These components are provided by a number of vendors which makes support a more challenging task. A failure in any one of the components can lead to a failure of the system whether hosted in-house or outsourced.

The purpose of this white paper is to provide faculty and support staff with a set of "best practices" regarding the use of Blackboard. Regardless of where Blackboard, or any other LMS for that matter, is hosted, failures will occur. Taking a few proactive steps can minimize the impact of the failure, reduce stress to both students and faculty, and facilitate a more rapid recovery from the failure.

I have included a "Check List" of things you should consider as you prepare and conduct your course. In addition, there are tutorials on archiving your course and exporting your grades. Finally, I have included a resource list that you can refer to when you need help.

Architecture

As indicated earlier, this system is very complicated and is comprised of a large number of components. A failure in any component of the system can cause a partial or total failure of the system. Users (both faculty and students) access the network from a variety of locations each with a specific Internet service provider (ISP). A failure on one of those components may cause a particular user to not have access to the system while another user continues to access the system.

The diagram below depicts, in simplified form, the network architecture of our new Blackboard environment. Rectangular boxes represent the equipment at the entrance of a house or organization. The "clouds" are the network infrastructure that connects the various

networks. The “barrels” labeled “Data” represent the server computers that contain the data or Web pages you need to access.

For example, you have posted a link in Blackboard to an external site, say Wikipedia. The router, a network device that connects an organization to the Internet, at that site has failed. Your student can still access Blackboard and all the materials contained in Blackboard, but when he or she clicks on the link, an invalid URL message appears. In another example, you are working at home trying to upload files to Blackboard. A road crew breaks your cable connection. You lose access to the Internet and Blackboard, but all your students are still able to access Blackboard with no problems. The point is there are many factors affecting accessibility to all or part of our learning management system. You need to be aware and prepared for that.

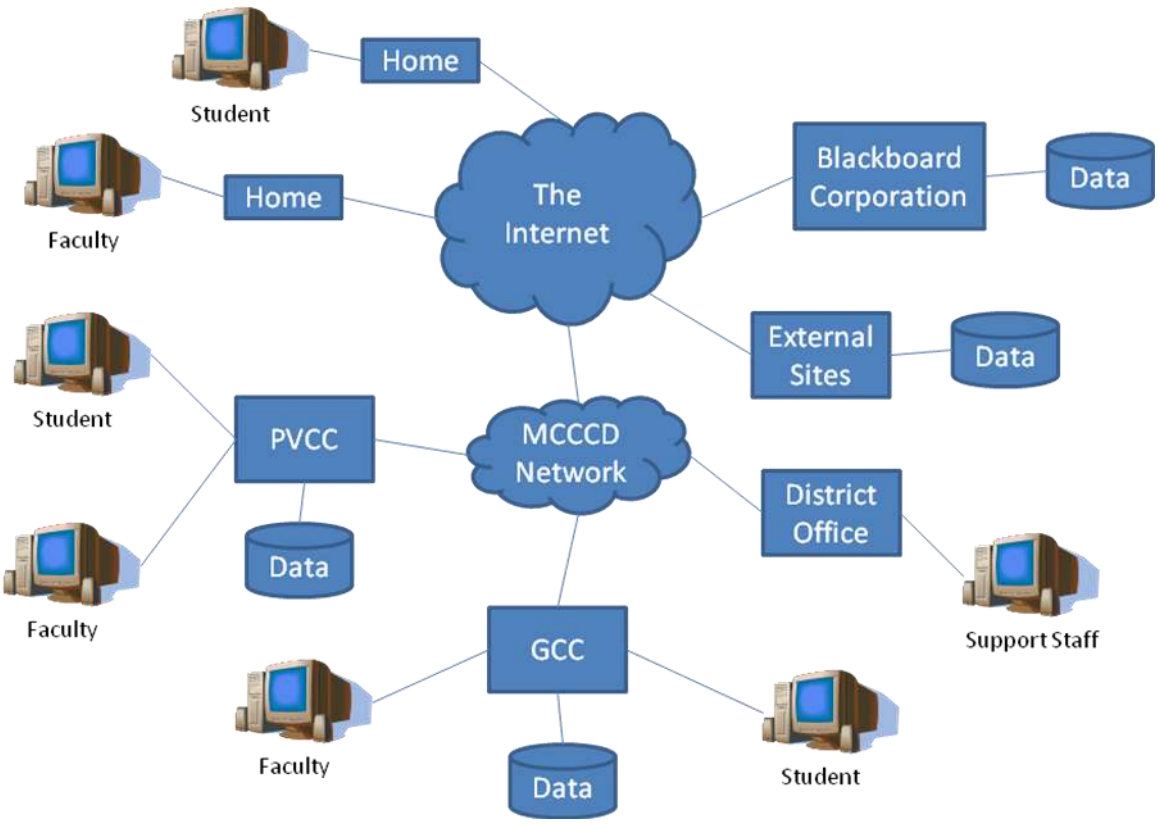


Figure 1: Network Diagram

Preparing for Your Course

One of the ways to avoid problems is taking the time to organize your course and course materials. Create a folder for your course and create sub-folders for different content areas that match the content areas you intend to use in Blackboard. If you are new to Blackboard, your campus Instructional Technologist can provide you with guidance on organizing your materials.

Be consistent in your overall course design. Many students take multiple courses from the same instructor and consistency across courses reduces the student's learning time to access materials. Your campus may also have some generic templates you can follow that will give you ideas on course organization and provide some consistency campus wide.

In addition, enlist the advice of faculty who have been using Blackboard for some time. They can share their experience on both successes and difficulties. I choose not to use the word "failures" because things that don't work provide valuable learning opportunities for improvement.

Another important piece of advice is to consider file formats. Documents created by software products are encoded so they can display the various enhancements like color, different size fonts, shading, and so on. Many users like to have the most current versions of software to take advantage of the new features they offer. However, for many, the cost of upgrading software may be out of reach or there are just not enough new or useful features to make upgrading worthwhile. Consider saving documents in the previous version's format. This can avoid students from having to download plug-in software in order to read materials. For word processing documents, Rich Text Format (RTF) is great for users on multiple computer platforms (PC, Macintosh, etc.). Remember, although Microsoft Office is widely used, not everyone uses it. Have students test opening documents you post in Blackboard early in the semester (first week is best) to ensure they can access everything.

Disaster Recovery, or Better Yet, Disaster Avoidance

Before we discuss disaster recovery, we need to identify the types of failures that may occur. Understanding that technology will, at some point in time, fail is the first step in creating your contingency plan. Remember, disasters range from not having access to a one item in Blackboard to not having access to Blackboard altogether, and also remember Blackboard may be running but something (hardware or software) between you and Blackboard may have failed.

The types of failures you may experience will also depend on your computer platform (PC, Macintosh, or other). We will begin by discussing ***your*** computer side of the system.

Your Home Computer

Your access to the Internet and ultimately Blackboard is greatly affected by your home computer. You access the Internet through an Internet Service Provider (ISP). Most likely, this will be Cox, Qwest, Earthlink, or a number of other providers. You may access the Internet via broadband (high speed) or dial-up (phone) connections. In all situations, you have hardware devices connecting your computer to your ISP. Access to the Internet is also accomplished using software called a browser. The most popular browsers are Internet Explorer, Netscape Navigator, and Mozilla Firefox. In all, besides the "top three", there are hundreds of Internet browser programs available.

From a hardware perspective, check to ensure all devices are working. Can you access other sites or check e-mail? Is your hardware protected from power problems? I recommend an uninterruptable power supply (UPS) for all network equipment (cable/DSL modems, switches and hubs) as well as your computer. Power failures can cause these devices to "hang up". UPSs have built-in surge protection, which is really important during our monsoon season. Any and all hardware not connected to the UPS should be connected to a good surge protector (power

strip) with a joule rating of at least 1,500. The higher the joule rating, the better the protection. You also should connect any phone, network, and cable TV cables to the surge protector as well. If you have not protected ***all*** equipment (computer, printers, scanners, speakers, monitors, etc.), then you have not protected ***any*** of your equipment.

Besides the physical hardware of your computer system, you have software. Software are the programs that allow you to do all those wonderful things. Software has many components that operate at many levels. In general, we have operating system software (Windows, Mac OS, Linux, etc.) that controls every aspect of our computer's operation, and application software (Microsoft Office, games, photo editing, etc.) that allows us to be productive or entertained.

When you start your computer (boot), you load the operating system and a number of other programs that control your system. When you run an application program, say Microsoft Word, the operating system locates that program on your hard drive, places it in memory (RAM), displays the interface (screen), and then turns partial control over to the program. As you work in the program, you interact with the application program (MS Word) which in turn interacts with the operating system. As you request various actions (saving a file or printing), the application program sends the request to the operating system, which then sends the instructions and data to a small program called a device driver which in turn communicates with the hardware. The diagram below (figure 2) shows the relationship of the user to a hardware device.

Figure 2: Relationship of User to Hardware

Ok, you are asking, "Why do I need to know this?" Well every program you install onto your computer adds complexity to your system in some way. Many program components are shared between multiple application programs, even application programs from different companies. Keeping your computer free of software you don't use lessens the chance of failure.

Since your browser is just an application program, it is important to have a compatible version that works with Blackboard. In addition, browsers can have extensions called add-ins or plug-ins (those little goodies, like the Google toolbar, that make your browser do neat things) that will affect your access to Blackboard. An important add-in is Java. Java is a programming language that can be executed from within web pages and applications. Blackboard needs this program in order to work properly. If you don't have it, or you don't have a compatible version, certain parts of Blackboard may not work.

Your browser also has several configuration settings. These include security, use of add-ins, display of pop-ups, scanning for viruses, and management of cookies and browser cache, just to name a few. Using a certified or compatible browser and having it properly configured

eliminates many issues. There are two issues in particular that need to be discussed. One is the use of cookies and the other is clearing the browser cache.

Cookies are small files written by Web applications. Typically, they contain information about the user. For example, when you shop at Amazon.com and log in to their site, they write a cookie on your computer with some of your information. When you come back to the site later, you name appears at the top of the page. The Web page reads the cookie and extracts the information so it can be used without you having to enter it again. There are both good and bad cookies. Some cookies store information about your browsing habits and use that information to target advertising to you or list other sites you may be interested in. Other cookies store information, like your name and address, so you don't have to reenter it. You must have cookies enabled for Blackboard to work. In some cases, cookies can become corrupted (damaged) and you will need to delete them. Of course, deleting cookies removes all cookies and you may have to reenter information for sites you visit frequently.

The browser cache is simply the Web pages and their components (pictures, buttons, etc) that you have visited. Every time you go to a Web page, it is copied to your PC. When you revisit the site, your browser, depending on how it is configured, checks to see if the Web page is already on your PC. If it is, it displays the Web page from your PC because it is faster to load the page from your PC. If there have been changes to the Web page, your browser will download the page again. If you think about the number of web pages you visit, this can be a significant number of files. And, sometime the browser gets a bit "confused" and does not display the most recent page. Clearing the browser cache ensures the most recent page will be displayed as well and remove literally thousands of files from your computer you may not ever access again.

A discussion about your home computer must include virus protection. Viruses are malicious programs written to either be a nuisance or cause damage to your computer or data. Virus protection programs have two components, the scanning program and the virus signature files. These two components work together to ensure you system stays as clean as possible. **Both** need to be updated. You should renew your subscription of your virus protection program each year. This gives you both the latest scanning program as well as the latest signature files. Because people who write viruses come up with new ways to transmit viruses, the scanning program needs to be periodically updated. This usually occurs a few times a year when virus protection software companies learn of new ways to transmit viruses. Signature files, files containing the code the scanning program looks for, are usually updated weekly.

Finally, make a backup of your data from your home computer. Most users don't even think about this. We keep adding things (pictures, music, documents, and so on) to our computer assuming it will never fail. Then the hard drive crashes and we end up losing all that stuff. The key to an effective backup up is to store your data in two places. Don't just make a copy to another folder on your hard drive. If the hard drive crashes, you still lose it all. Flash/jump drives or CD/DVD writers are great devices to use to back up your data. The frequency you backup will depend on how much things change on your computer. And, it is not necessary to backup all your programs. You should have a system recovery disc or installation discs that came with your system. You just need to back up your data, typically whatever is in the "My Documents" folder.

Your Campus Computers

You should not have very many problems with computers on your campus. If your campus is like mine (PVCC), the Information Technology (IT) Department can assist you with

most problems relating to accessing Blackboard. But there are a few things you should keep in mind to ensure you have access to Blackboard.

Just like your home computer, only install software your really need and install it from a trusted source. Remember, a lot of software from the Internet may contain viruses and other malicious programs. It would be best to clear software installations with your IT Department prior to any installation.

Unless you really understand the impact of changing system settings, avoid making changes to your system and browser. If you make changes, you may want to keep a small log of what you changed, just in case things don't work out the way you expected. This can also help your campus support staff if you experience problems after a change. Again, I highly recommend you let your IT Department know what you intend to change so they can advise you of any concerns.

Finally, back up your data on your hard drive. If you files are stored on your office computer, and not a server, you are at risk of losing your files if your computer crashes. Again, a flash/jump drive or CD/DVD burner are great for this. I like the flash drive because they are high capacity, very portable, and work with both PCs and Macs.

During the Semester

For most faculty, the semester is our busy time. If you rely on Blackboard, or any other learning management system, and a failure occurs, it ruins our whole day. Even minor problems can cause stress and make us look somewhat incompetent in the eyes of our students. From our student's perspective, it also adds to their stress level and detracts from the learning environment. Remember, failures ***will*** occur, no matter where Blackboard lives. You can greatly minimize the impact of any failure by doing some simple things that do not require a significant

amount of extra work. They are: backup your data, post critical documents to a web site, archive your course, export your grades, and keep paper copies of critical documents.

Backup Your Files

Have I said this before? Yes, and this is the third time. I cannot express the importance of having a good backup. This is not just a Blackboard thing. It is a great habit to get into for all your important files (documents). We are not just moving to the digital age, we are in the digital age. We create documents, download music and movies, and take digital pictures. Are these things you can afford to lose? Backing up your files is an investment in a backup device (flash drive, CD/DVD burner, or external hard drive) and a little bit of time.

In my experience, files fall into two general categories. Working documents are those files you use on a fairly regular basis. Working files would be your current course materials such as letters, pictures, music, or any other file(s) you always want to access. Archival files are those files you want to keep but rarely access. These files may include archives of previous courses, pictures, music, letters, and so forth. How you organize your folders will have a significant impact on the ease of backing up your files.

Under "My Documents", I have two basic file folders: one for working files and one for archival files. Under each of those folders, I have created folders for different topical items. Files in my "working" folder are backed up daily to my flash drive. I keep my flash drive always with me so I can have ready access to my files. Files in my "archive" folder are backed up to an external hard drive. I backup these files once a month or whenever I have added or changed a large number of files.

I know what you are thinking right now. That must take hours! Well, the daily backup takes less than a minute, usually seconds. No, it is not magic. I use a special Windows folder called the "Briefcase". With this folder, only files that have changed, whether on the flash drive

or your hard drive, are copied. I simply stick in my flash drive, click on a desktop icon, and click update all. It only takes a few seconds. Is there a gotcha? Of course there is. If you change the same file on both systems, you are going to have to decide which one of the two you want to keep. But after a little experience, you will be able to keep your important files always available and safe. I use the same setup for my archival folder. It can take longer if I have taken a ton of pictures or have downloaded all my course archives for the semester. How long? A few minutes in most cases.

There are a couple of problems with the Windows briefcase that I have encountered. First of all, it doesn't like the new Microsoft Access database files (MS Office 2007). If you have them, it will not synchronize anything. I am working with Microsoft to get a solution to that problem. So far, everything else seems to work fine. Secondly, it is a little finicky about ***dragging and dropping*** files in and out of the briefcase. The briefcase maintains a hidden database of files contained in the briefcase for synchronization purposes. Every once in a while you will get a little nasty message that you can't move a file. There are a few ways around the problem. Just remember, it is just looking out for your welfare. The bottom line is it works pretty well and it comes with Windows.

Regardless of how you choose to backup your files, get into the habit of doing it. In the long run, you will be happy you did.

Setup a Web Site

You may want to consider posting some of your course materials to a Web site. It is not very difficult and most campuses have IT people who can assist you with creating a Web site. I organize my Web site in a similar way I organize Blackboard. I also do not post everything. I post my syllabus, calendar, assignment summary, and a few other documents. Not only does this give students a alternate place to go in case of a failure, it give perspective students

information about you as an instructor and what is expected of them for a course they may be considering taking. I do not post any materials from publishers. Remember, these are copyrighted materials and therefore should not appear in any public space unless you have written permission from the publisher.

Archive Your Course

Although Blackboard will be hosted by Blackboard Corporation and we would expect they will provide stable, secure environment, things can and will go wrong. I recommend you periodically archive, not export, your course. This function is located on the control panel screen. Archiving a course creates a file of all items in the course. Not only does it include documents you have posted, but discussion board entries, grades, and other items of which you will not have any tangible backup.

When you click on the "Archive" button, a program will create a file that contains all of your course objects. You will receive an e-mail when the process has completed. You can continue to work in Blackboard while the file is being created, but I would recommend you wait until the archive process is completed. After you receive the e-mail stating the archive has been created, you should go back into the archive screen and download the file to your computer. Why? Well, if the Blackboard server crashes, and your archive file is still in Blackboard, you probably can guess where this is going. Once you have downloaded the archived course file, you can remove it from Blackboard. These files can be quite large and removing the file saves space on the server.

So how often should you archive your course? I would recommend every two weeks or sooner if you have had a significant amount of activity like discussion board posts, tests, file uploads, and so on. The download of this file can take several minutes depending on the size of

your course. A good time to download the file is while you are at a meeting, class, or need a break.

I usually create an archive file before class starts, then one every other week, and a final archive after I have submitted grades. The final archive becomes my "historical" record of the course and I keep very few paper documents. Another advantage of an archive is it can be used to load materials for the next semester.

Export Your Grades

Depending on how you use Blackboard's grade book, you may want to consider exporting your grades periodically. Keep in mind if you archive your course, your grade book is also saved. However, if you enter a lot of manual grades, those grades are not automatically calculated by Blackboard, so exporting your grades can be a life saver. In addition, it is very fast and it can be imported into Microsoft Excel if you need to do any special calculations. The export function is available directly from the grade book area. See the tutorial in the "Tutorials" section on how to export your grades.

Keep Copies of Critical Documents Available

Keeping copies of your critical documents in printable form is probably one of the most important things you can do to avert a crisis. If you create virtually everything within Blackboard, you can print the item as a Web page. Although this is very easy to do, you really don't have many options for formatting without doing a lot of work.

For most documents (syllabus, calendars, etc.), keeping your files in their word processing format is no problem for posting to Blackboard. Remember, earlier I stated you may want to consider saving files in the previous version of Microsoft Office or as a rich text file (RTF) to make it easy for students using different versions or platforms (Macintosh vs. PC). And, just

as important, keep those documents with you on your flash drive or other portable media. Again, I like flash drives because you can keep them on a lanyard or attached to your key ring.

For tests, quizzes, and some assignments, you may want to consider using a third-party program like Examview, TestGen, Diploma or Respondus to create your tests and import them into Blackboard. I find this a good method because these products allow you to easily print a paper version. Examview, TestGen and Diploma are available from book publishers for free if you are using their books. Respondus is a district program and is available to all faculty.

Once I create a test, quiz, or assignment, I export it to both Blackboard as well as paper formats. Then, if Blackboard is down or students are having problems taking a test, a paper copy can quickly be generated. It only takes a few seconds to export to document format.

You may also want to keep your presentations on you portable media as well. There is nothing more embarrassing than getting to class ready to do your lectures and you can't access Blackboard for your presentations. Well, to be honest, I have had other more embarrassing moments. But that is a topic for my memoirs!

The whole point here is to keep the things you need most with you. As I stated before, flash drives are great. Your documents don't have to be on paper, but keep them in a format that allows you to quickly create paper documents.

Top Blackboard Issues

Listed below are the top seven Blackboard issues experienced throughout the district. Most of these issues can be resolved easily by contacting your campus helpdesk.

Passwords

Passwords periodically expire (usually every six months), or we simply just forget them. It is important to choose passwords that are easy to remember, but are difficult for others to

guess. Passwords are set through the Personal Administration Tool (PAT). If you can't get access to the PAT, you can call your campus helpdesk and they can reset your password so you can log into the PAT and change it.

Keep your password safe as it not only gives you access to Blackboard, but the Human Resources Management System (HRMS) and the Student Information System (SIS) as well. You can change your password at any time using the PAT if you feel it has been compromised.

Username (MEID)

Your MEID (Maricopa Enterprise Identification) is the user name you use to log into Blackboard and other Maricopa systems (HRMS and SIS). If you forget your MEID, you can call your campus helpdesk and they can look it up, or you can use a couple of tools to "discover" your MEID. One of the tools is the Personal Administration Tool (PAT) and the other is the Enterprise Identity Management System (EIMS - http://memo.maricopa.edu/mtools.html). See the tutorials section on how to access the PAT.

Course Availability

Another common problem is we forget to make our course available to our students. When your course shells (empty course sections) are created, they are by default unavailable to students. If you sign into Blackboard, the word "unavailable" will be next to the list of courses under the "My Courses" section. Be aware of your course start date and be sure you go into Blackboard and make the course available to your students. You can find the course start date on the online class schedule and in the Student Information System under Faculty Center. You are not under any obligation to make the course available earlier than the course start date but you may if you choose. See the tutorials section on how to make your course available.

Application Functions (training)

Blackboard is a big application and learning all of its features takes some time. Many functions are really easy to learn, but attending District and campus training sessions will really help. In addition, it is not a perfect application. By that I mean there will be functions you will want to do that cannot be done, or have to be done in some creative way. The more you learn about Blackboard, the easier it will be for you to develop work-a-rounds for those little problems. Take advantage of the free training the District and your campus may offer.

http://www.maricopa.edu/blackboard/resourcesFaculty.html

Supporting Systems

Although it is not the focus of this paper, many users call the helpdesk regarding the additional systems they access: SIS, HRMS, My.Maricopa.Edu, and local campus networks. Again, attending training on the use of these systems, and getting help from your campus technology staff can assist you in the use of these systems.

Workstation Setup (Your PC)

This topic has been discussed earlier so I will not elaborate. Just remember, home computers will pose the largest support challenge because of the installed software, configurations, and other factors beyond the Districts' control. Call the Blackboard support line or your campus helpdesk for help with home computer issues.

Supplemental Tools

Not only does the District provide the Blackboard system, there are a number of third-party add-ins that provide additional functionality to Blackboard. These add-ins are called "Building Blocks" and are written by companies other than Blackboard. Blackboard will test them but we purchase them like you would purchase an accessory for your car. Common add-

ins include Softchalk, Wimba, Respondus, and ClearTxt to name a few. The District and your campus will usually provide training for these products if you choose to use them.

Summary

Although we are moving to a hosted environment for Blackboard, you still need to take some preventive measures in case of a failure. Large or small, failures cause anxiety. Knowing that failures will happen is the first step in creating an environment whereby the failure is a mere inconvenience, not a life disaster. Take the time to ask "What if …..?". And then prepare. It won't cause you a significant amount of extra work, and you can turn your attention to the things that really matter most to all of us: teaching and learning.

Check List

1. Organize your course content and keep copies on your home or office computer. Better yet, get a flash drive.
2. Consider placing primary course documents (syllabus, calendar, assignment summary, etc.) on a web site.
3. Archive your course and download the archive file periodically.
4. Download your grades periodically.
5. Keep a copy of tests and quizzes in printable form.
6. Make sure you have a compatible Web browser and it is properly configured.
7. You may have to delete cookies and clear your browser cache.
8. Keep your virus protection up to date.
9. Backup your data often.
10. Hope for the best, prepare for the worse.

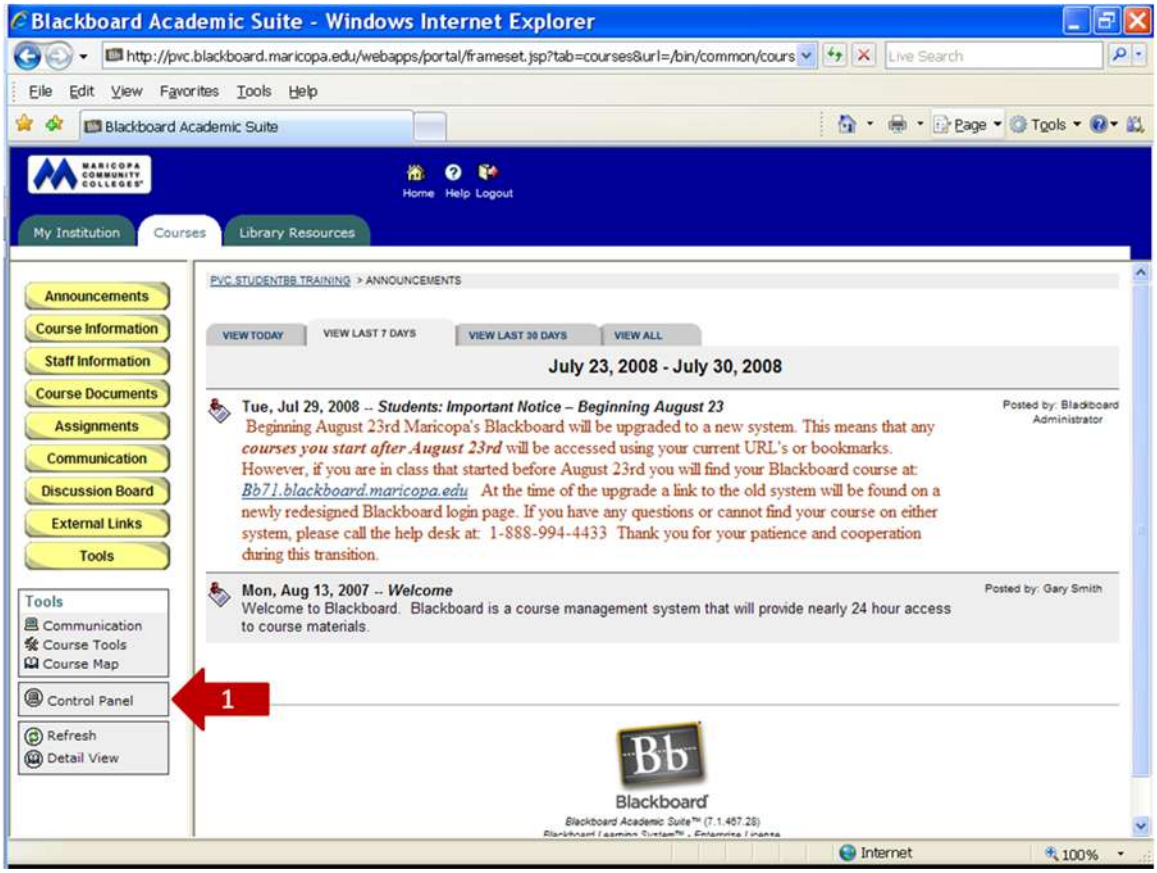
Accessing the Personal Administration Tool (PAT)

The Personal Administration Tool allows you to view your MEID (Maricopa Enterprise Identification), set your password, and update other information about you. To access the Personal Administration Tool, open a browser and enter the following Web link (URL – Uniform Resource Locator): https://memo.maricopa.edu/usertool.html . Please note the Web link starts with https and not http. This is a secured Web site which means the information you pass between your computer and the Web site is encrypted. You should see a screen that looks like the following:

1. If you don't know your MEID, you can select the "MEID Lookup" link.
2. If you forgot your password, you can select the "Forgot Password" link.

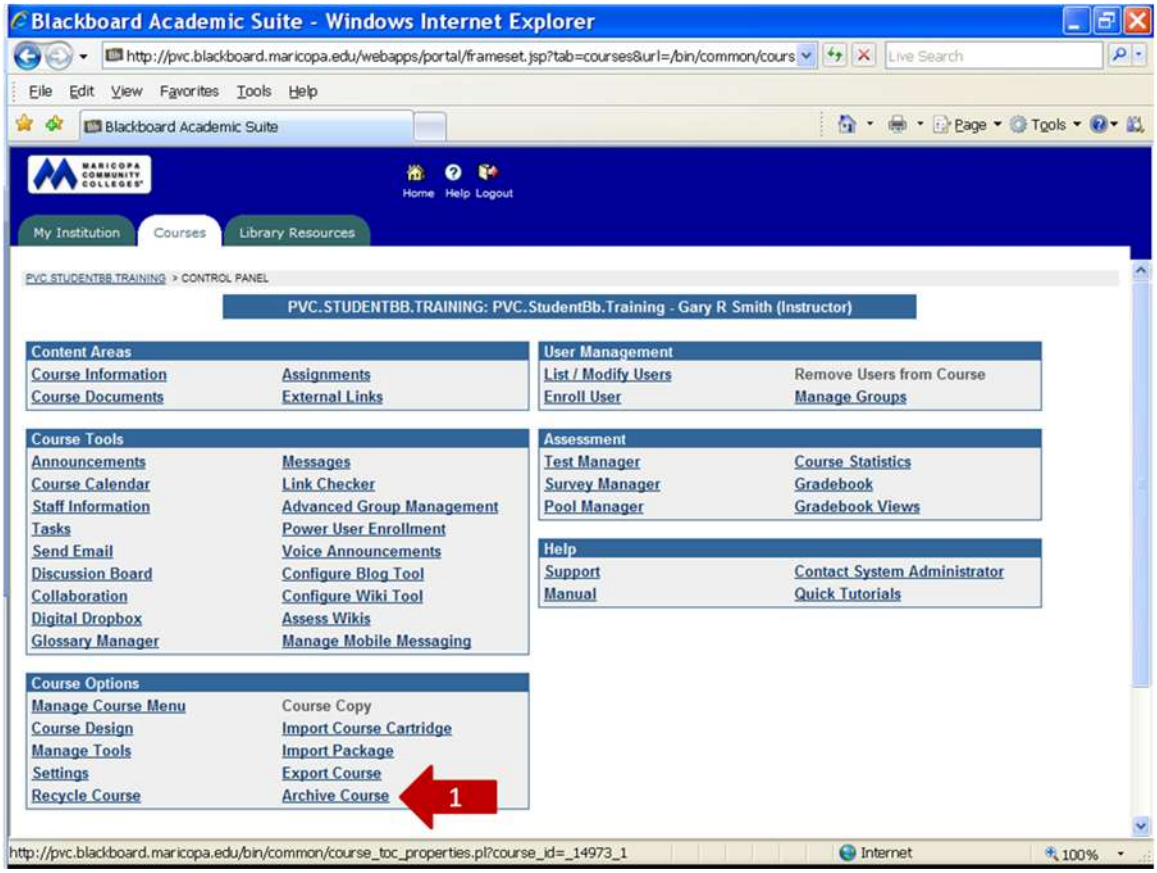
Archiving Your Course

Archiving your course is the best method to make a backup of your course data. Since all data is copied, you cannot select which components to copy as you can in the Export function. To archive your course, go to the Control Panel.



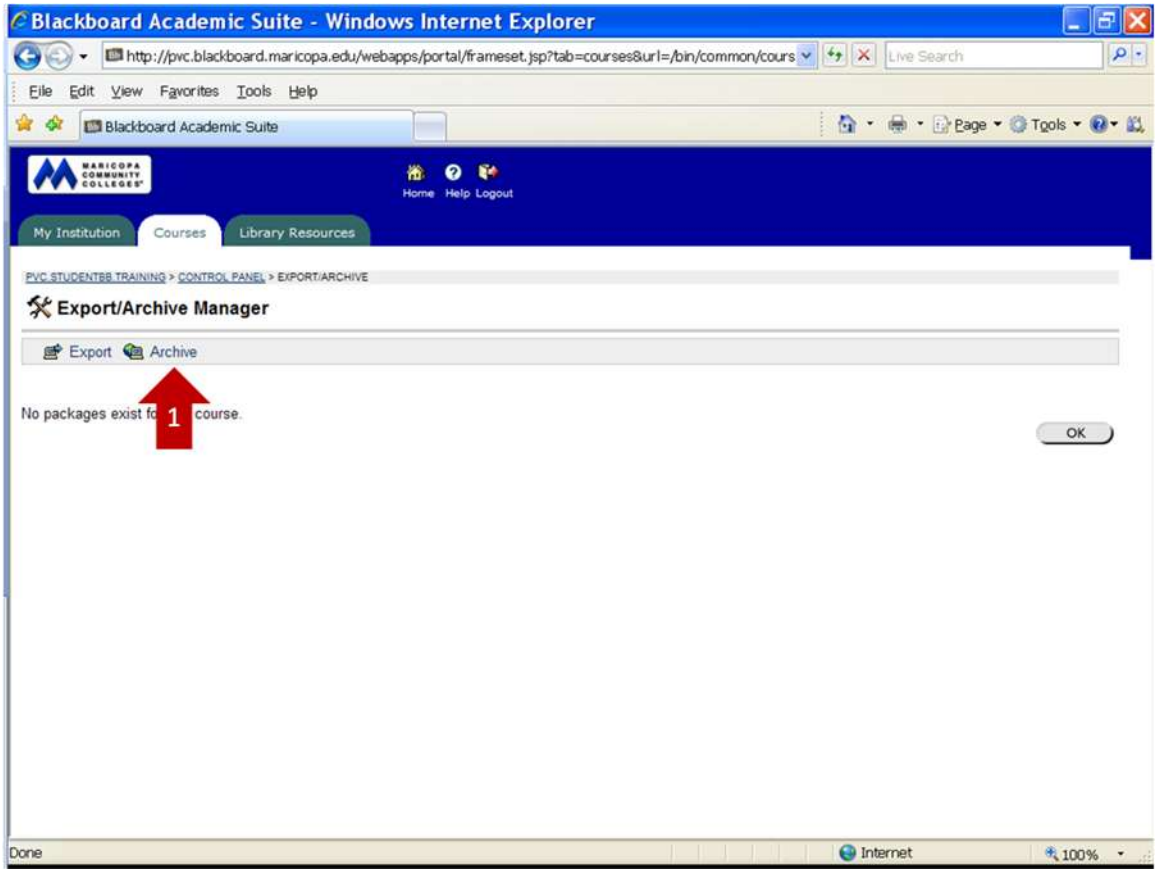
1. Click Control Panel.

The Control Panel screen should be displayed. Click “Archive Course” under Course Options.



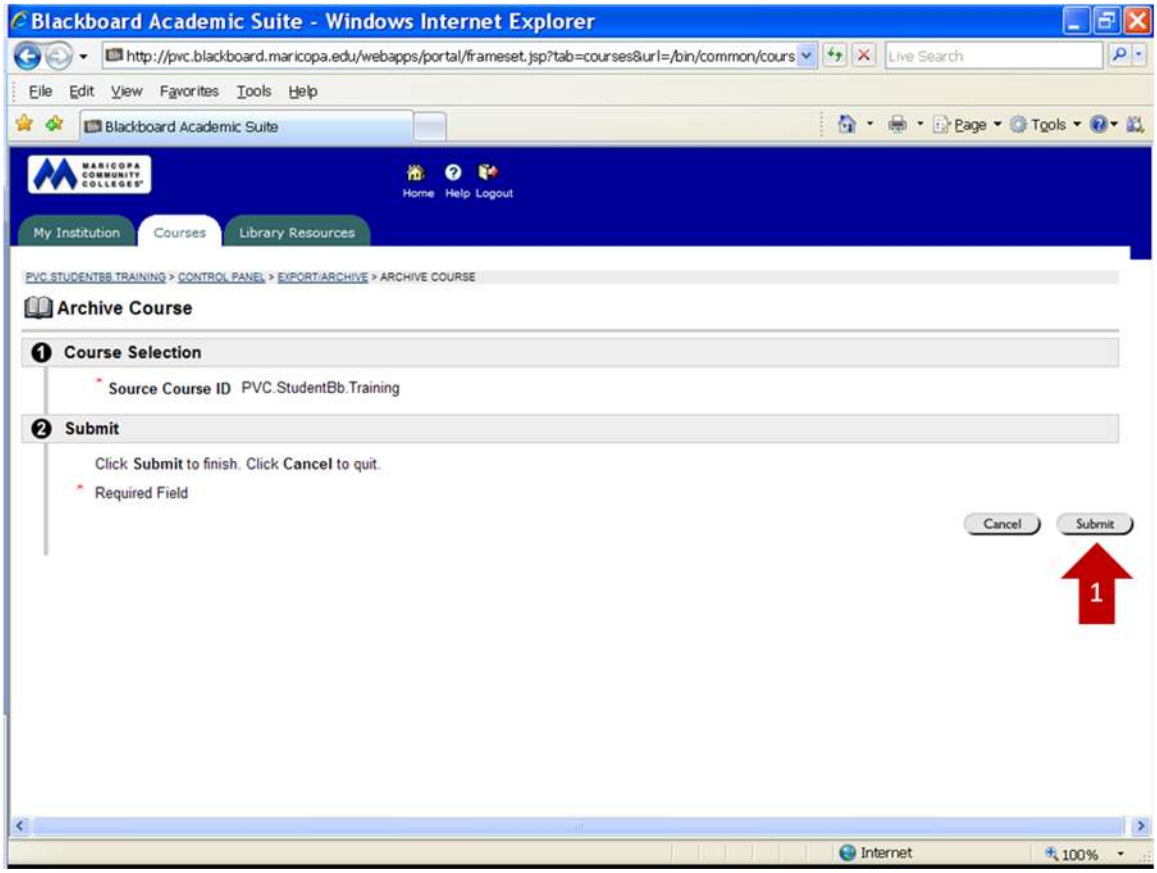
1. Click on Archive Course

The Export/Archive Manager screen will be displayed. Click on the “Archive” button.



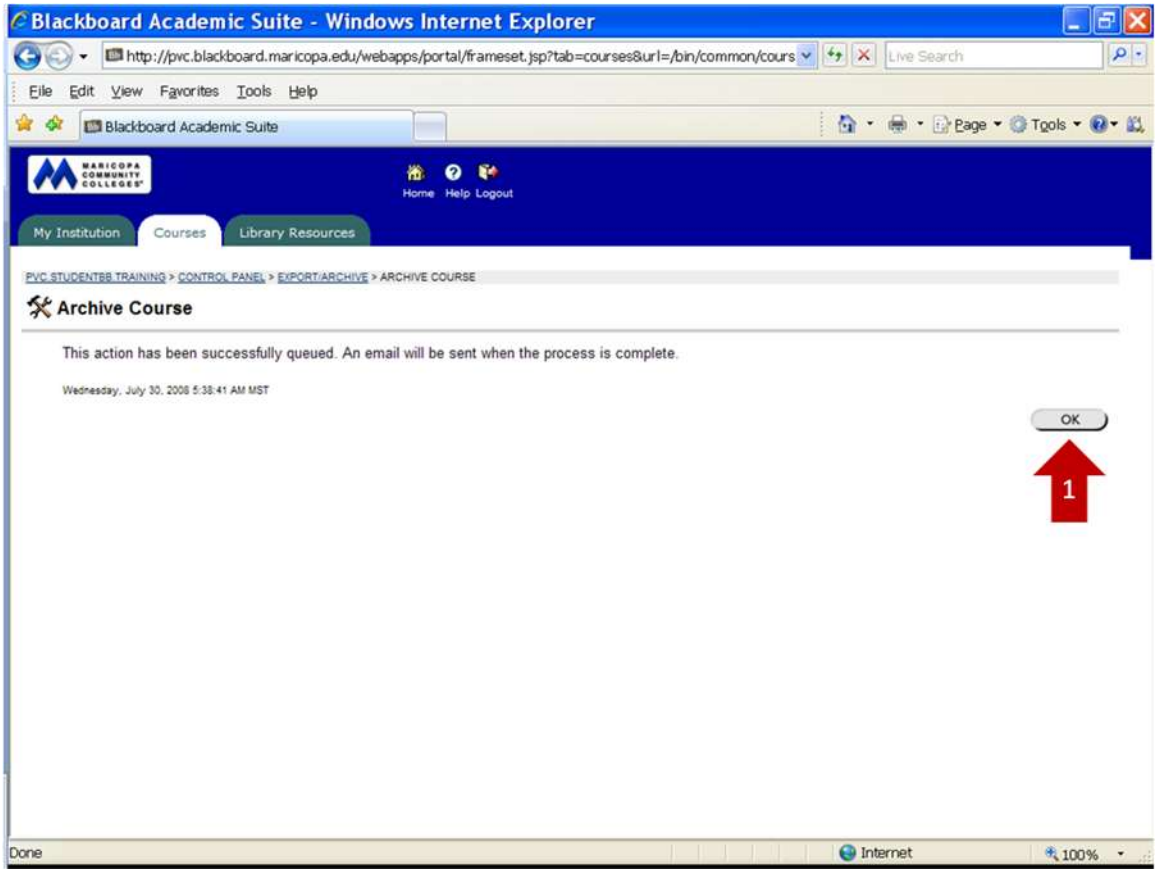
1. Click the Archive button.

The Archive Course screen will be displayed. Click the “Submit” button.



1. Click the Submit button.

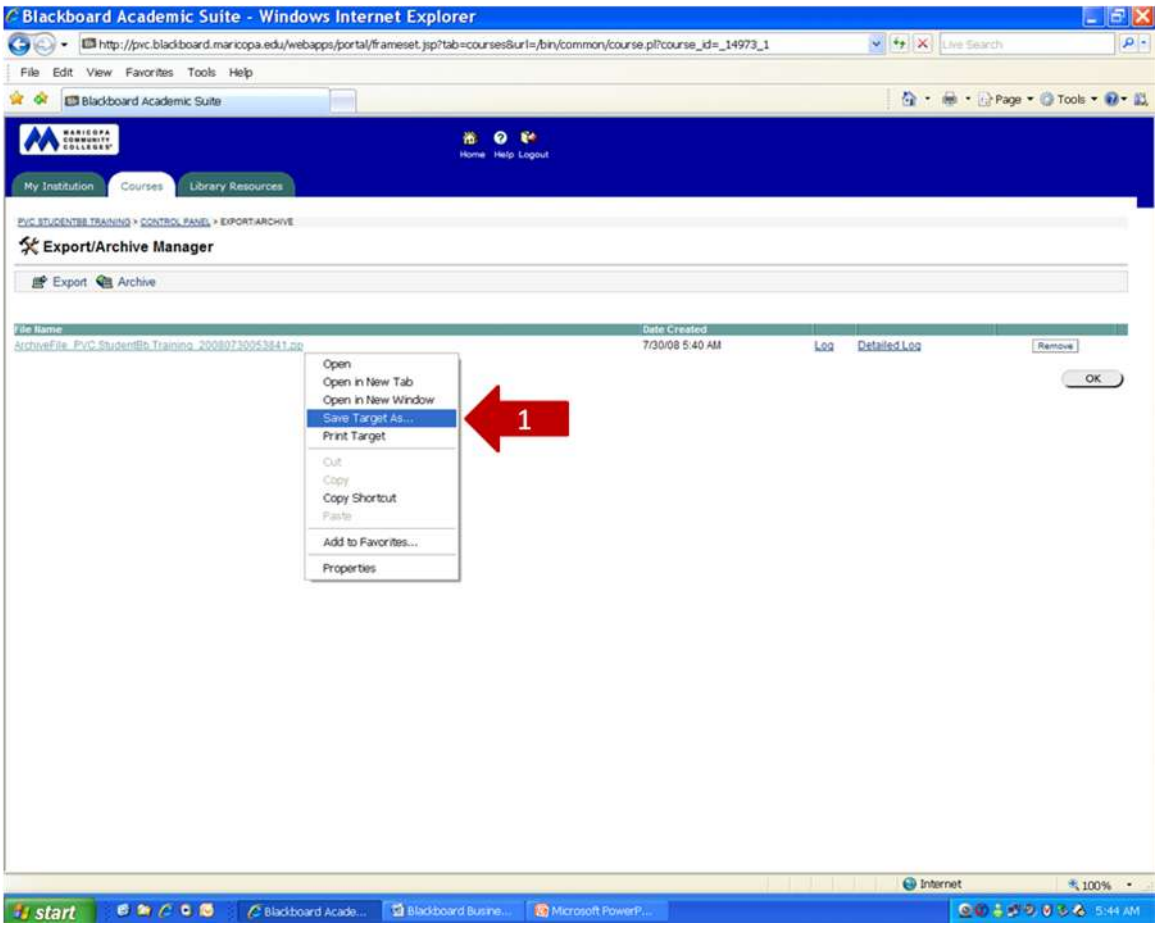
You will receive a confirmation screen indicating your request has been submitted. Depending on the size of your course and the amount of other requests pending, this could take some time. You will receive an e-mail when the archive process is complete.



1. Click the OK button.

You will be returned to the Archive/Export screen.

When you receive the e-mail stating the archive process is complete, return to the Export/Archive screen by clicking on Archive Course under the Course Options section of the Control Panel. You should now see a line showing the archived file. Right-click on the underlined text under the File Name heading. Select the “Save Target As…” option.



1. . Right-click on the underlined text under the File Name heading. Select the “Save Target As…” option.

The “Save As” dialog box will open. You can now select where you want your archive file placed.

I recommend you change the name to a more meaningful name. For

example”PVC_CIS105_1234_Archive_07012008” would be:

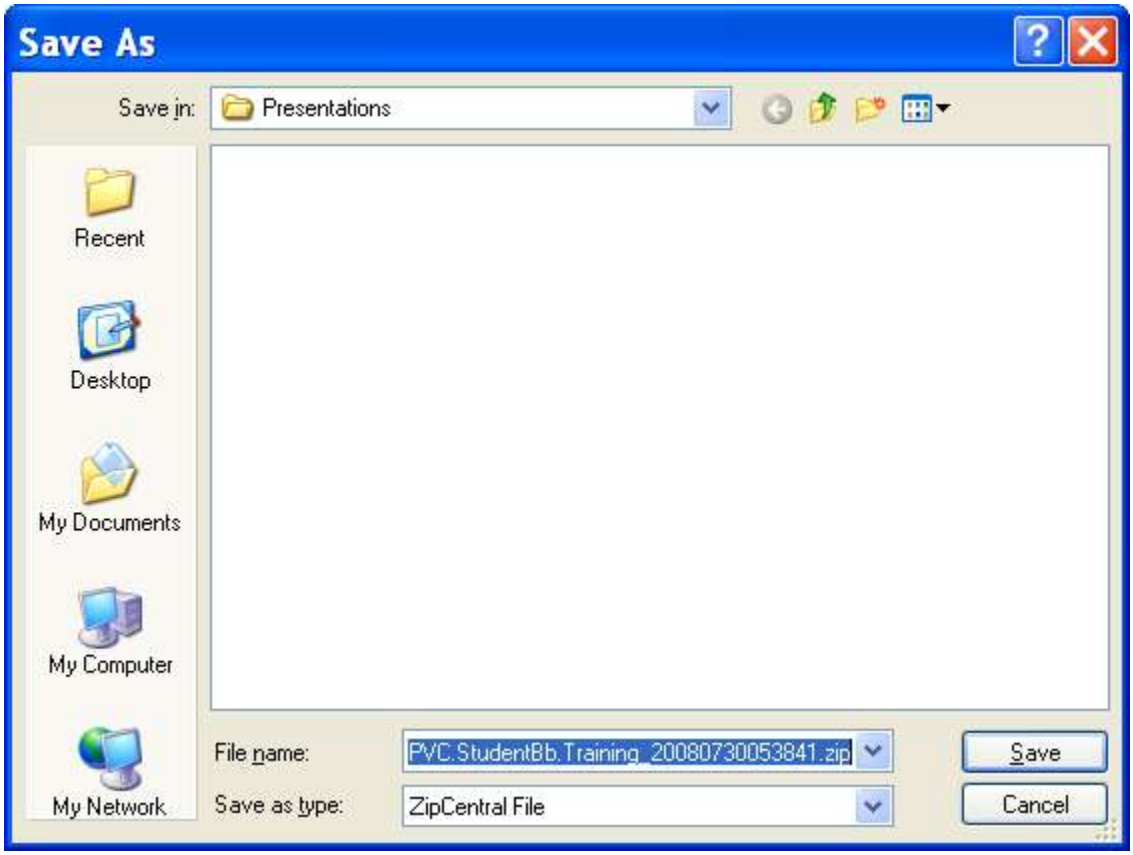
PVC = Campus

CIS105 = Course

1234 = Section

Archive = Type of file (Archive vs. Export”

07012008 = Date.

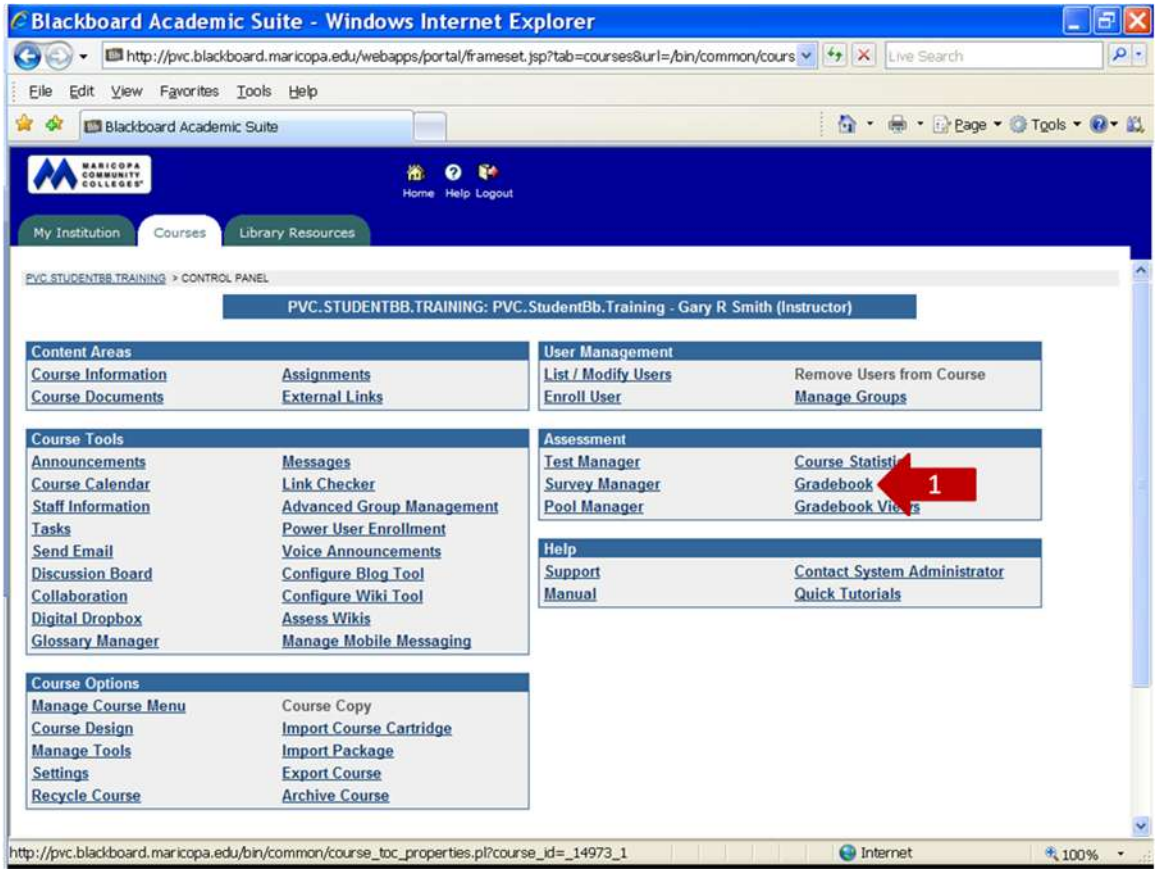


Click the Save button.

You are done. Once you have saved the file, you could go back to the Export/Archive Course screen and remove the file from Blackboard.

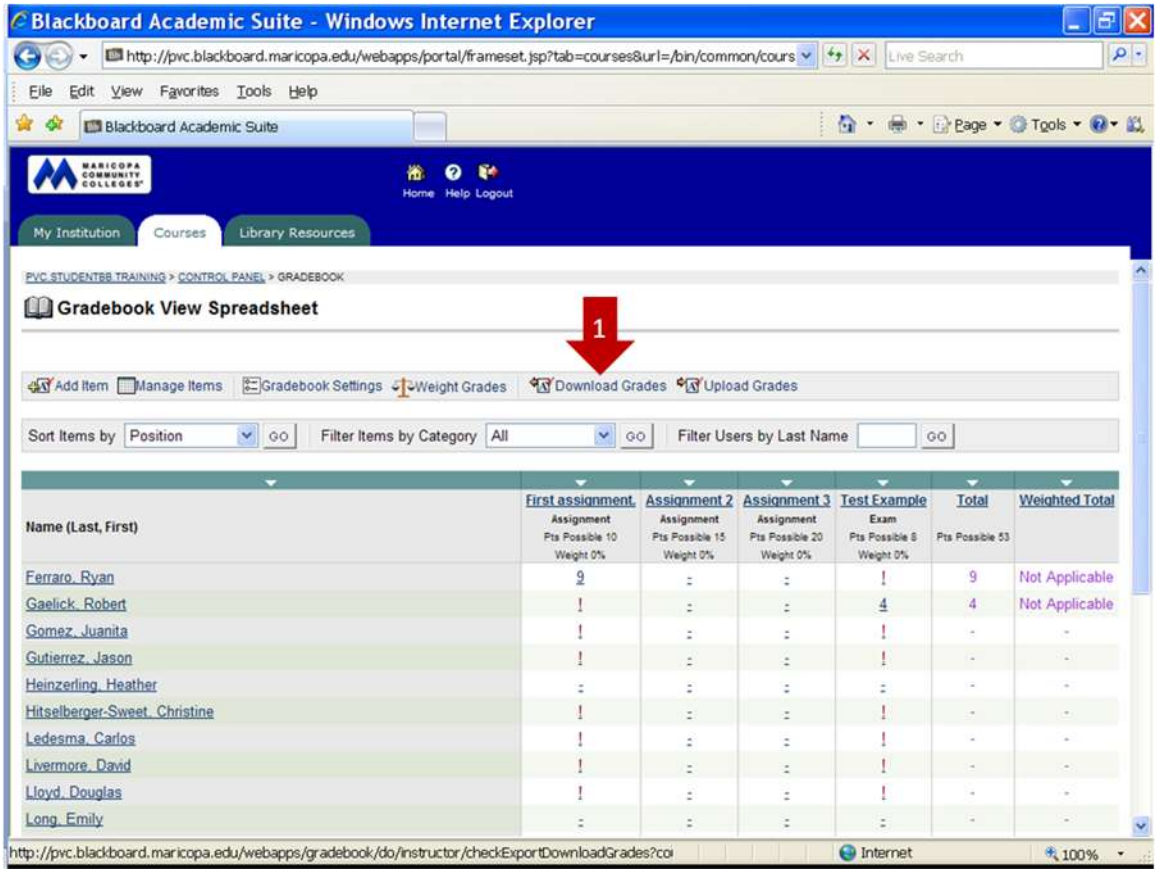
Exporting Grades

From the Control Panel, click on the Gradebook link.



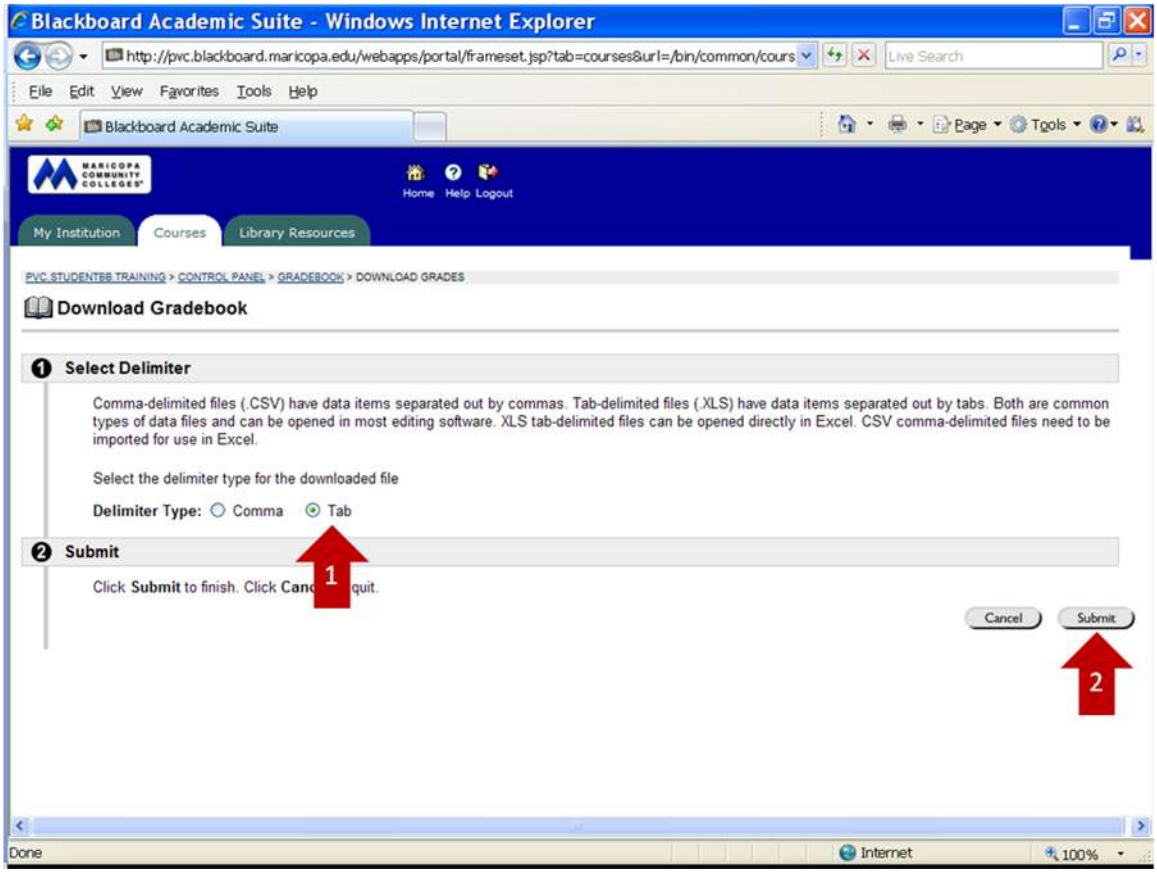
1. Click Gradebook.

Your Gradebook should be displayed. Click the “Download Grades” button.



1. Click the Download Grades button.

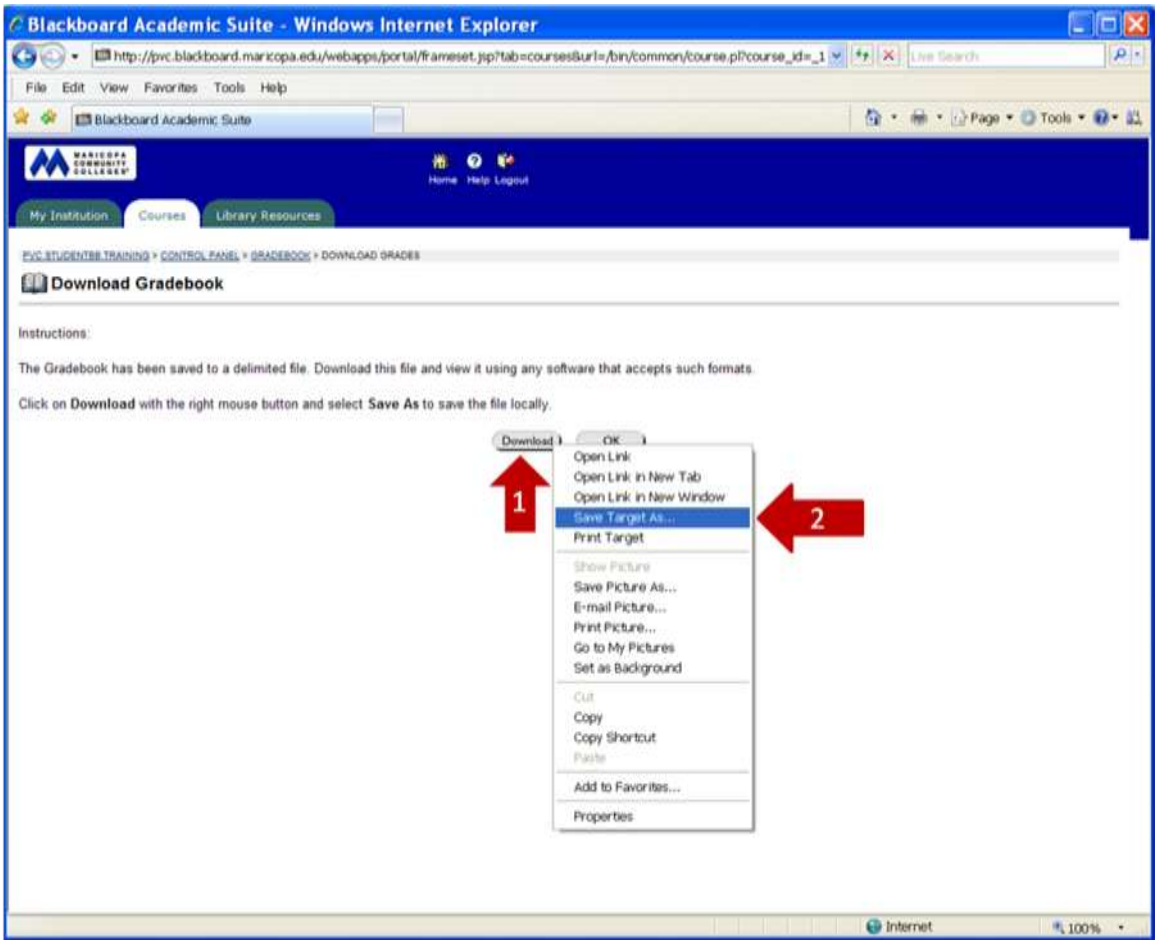
You should see the Download Gradebook screen. You have two options. You can create a comma separated values file or a tab delimited file. I recommend you use the tab delimited file because it opens directly into Microsoft Excel.



1. Select Tab as the delimiter type. It should actually be preselected for you.

2. Click the Submit button.

You will see the Download Gradebook screen. To download your file, right-click on the "Download" button. Then select the "Save Target As…" option.



1. Right-click the Download button.

2. Select the Save Target As… option.

The “Save As” dialog box will open. You will now be able to select the location where you want to save your grades and you can also change the name of the file. Because all files are given the name of “gb_export”, I recommend you change the name to a more meaningful name. For example,” PVC_CIS105_1234_Grades_07012008”, where:

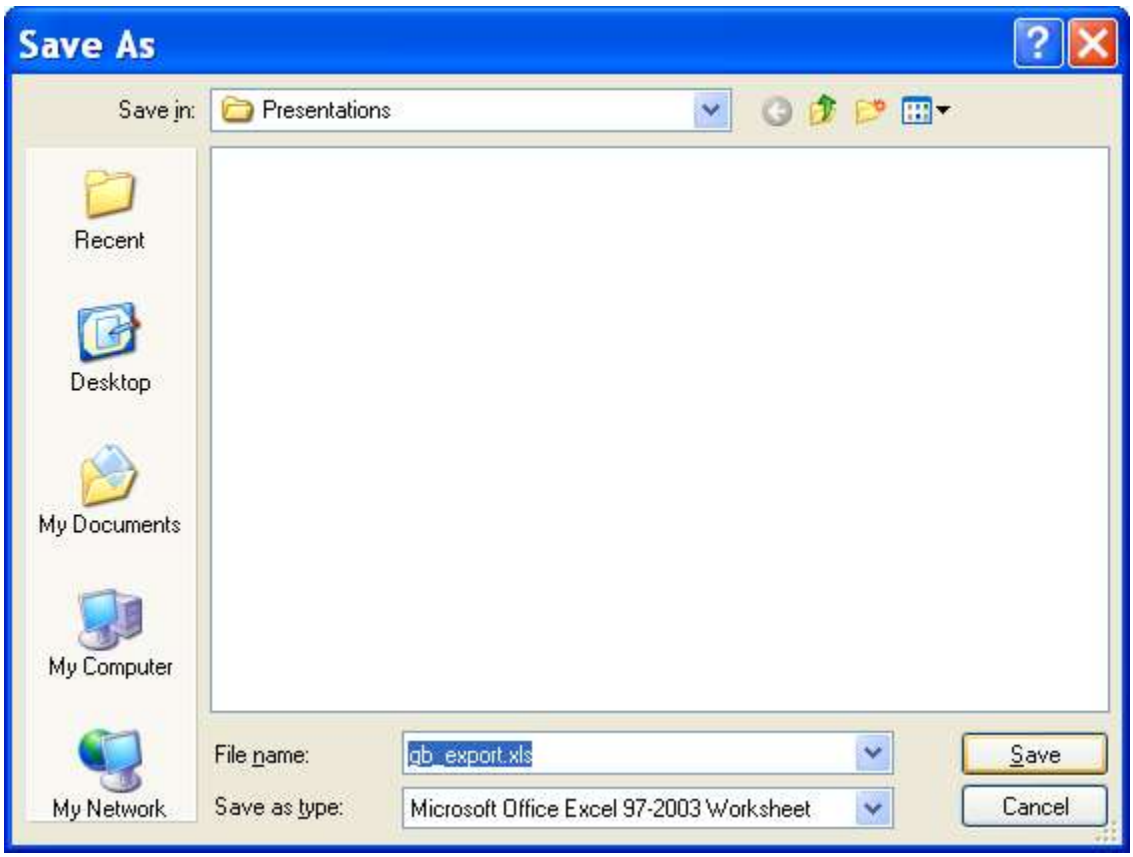
PVC = Campus

CIS105 = Course

1234 = Section

Grades = Grade book

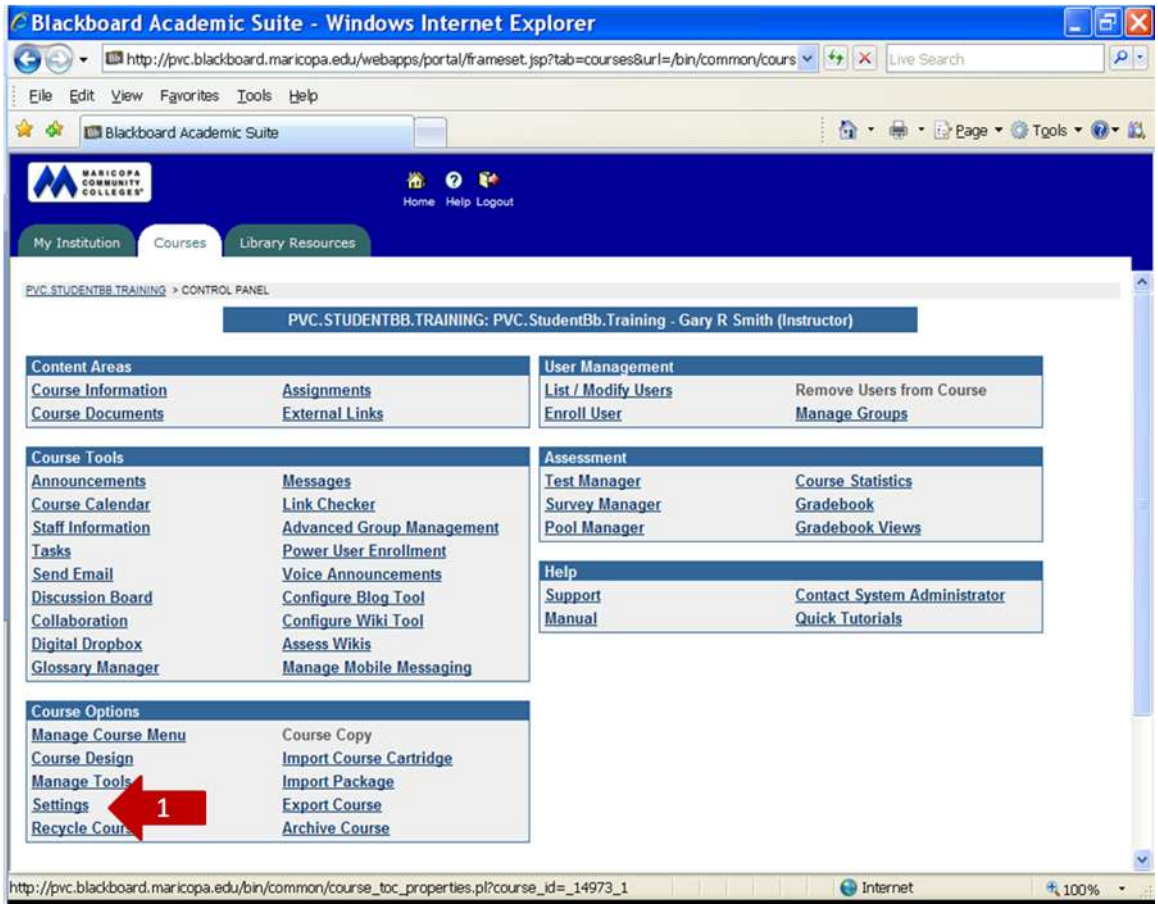
07012008 = Date



You are done!

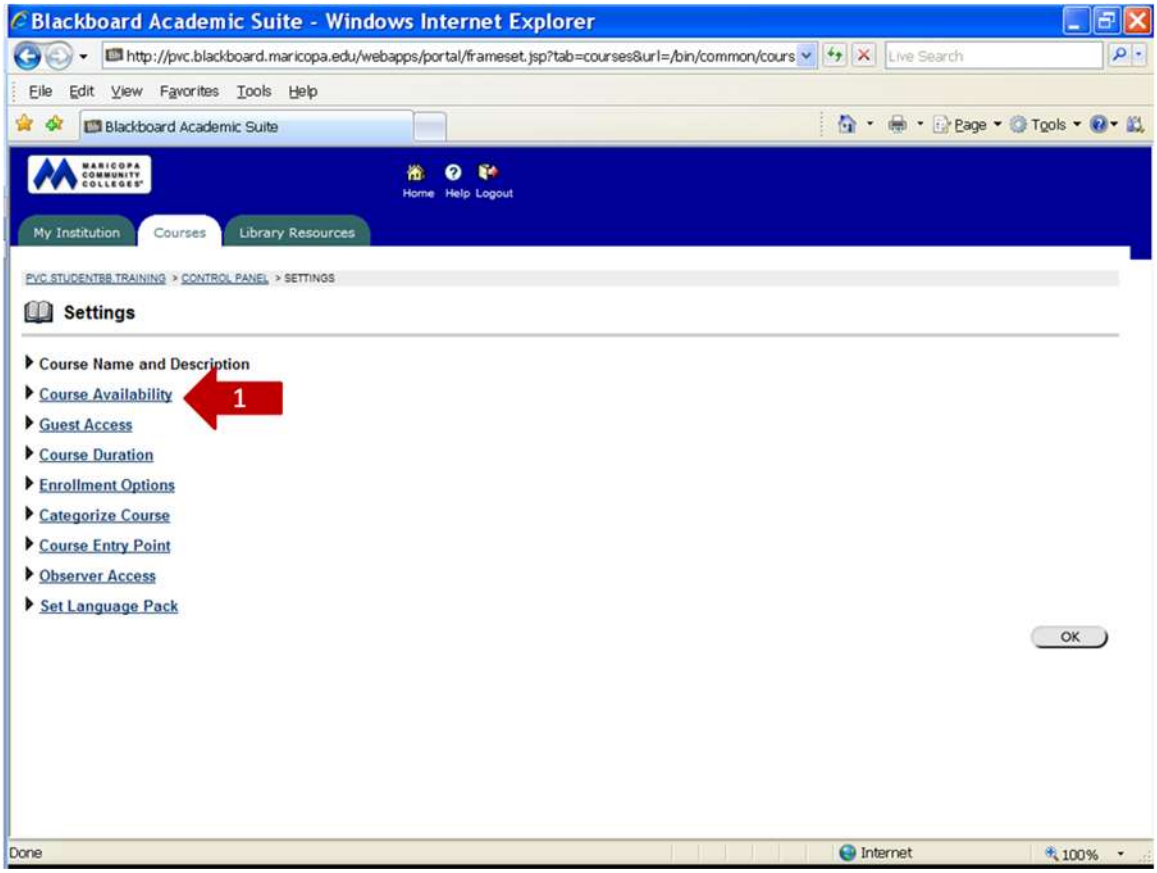
Making Your Course Available to Students

One of the most common problems we encounter at the beginning of the semester is forgetting to make the course available to our students. To make your course available, go to the Control Panel screen. Select "Settings" from the "Course Options" section.



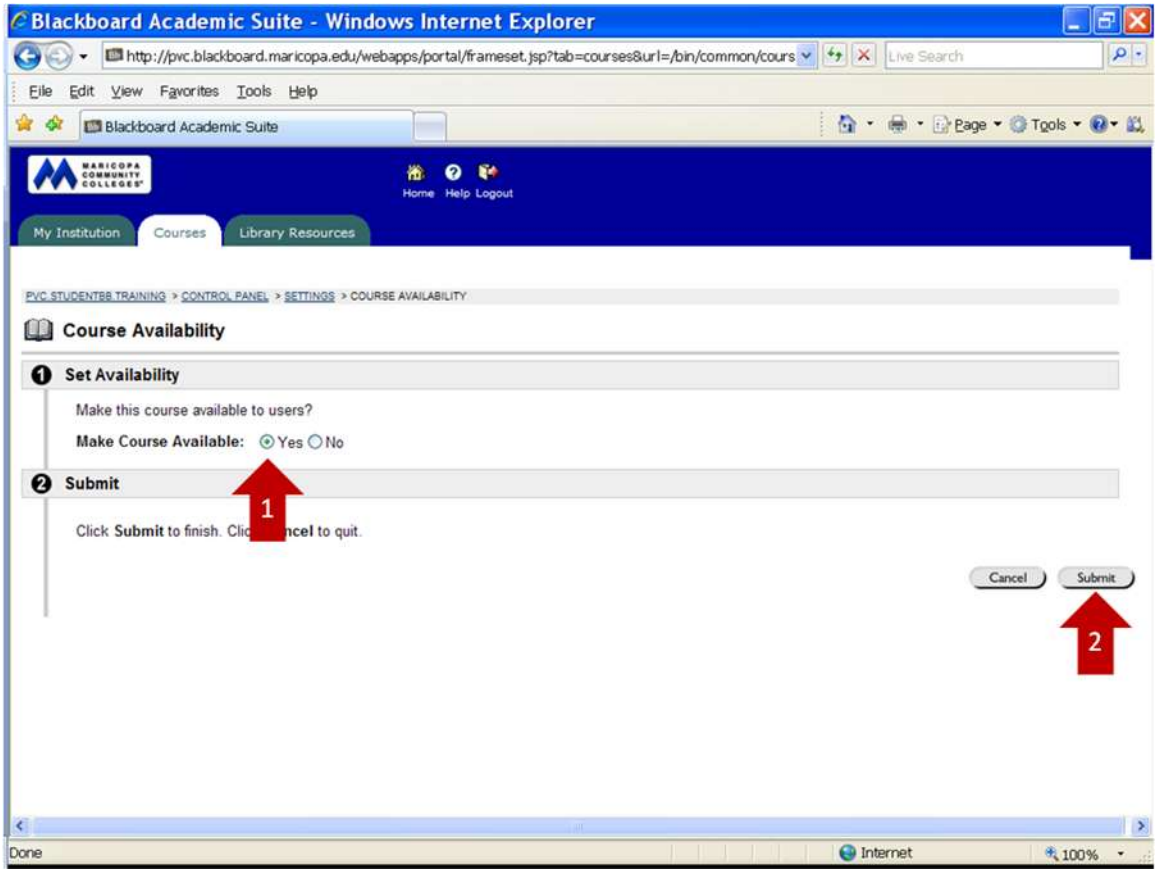
1. Click the Settings link.

The Settings screen will be displayed. Click on the “Course Availability” link.



1. Click the Course Availability link.

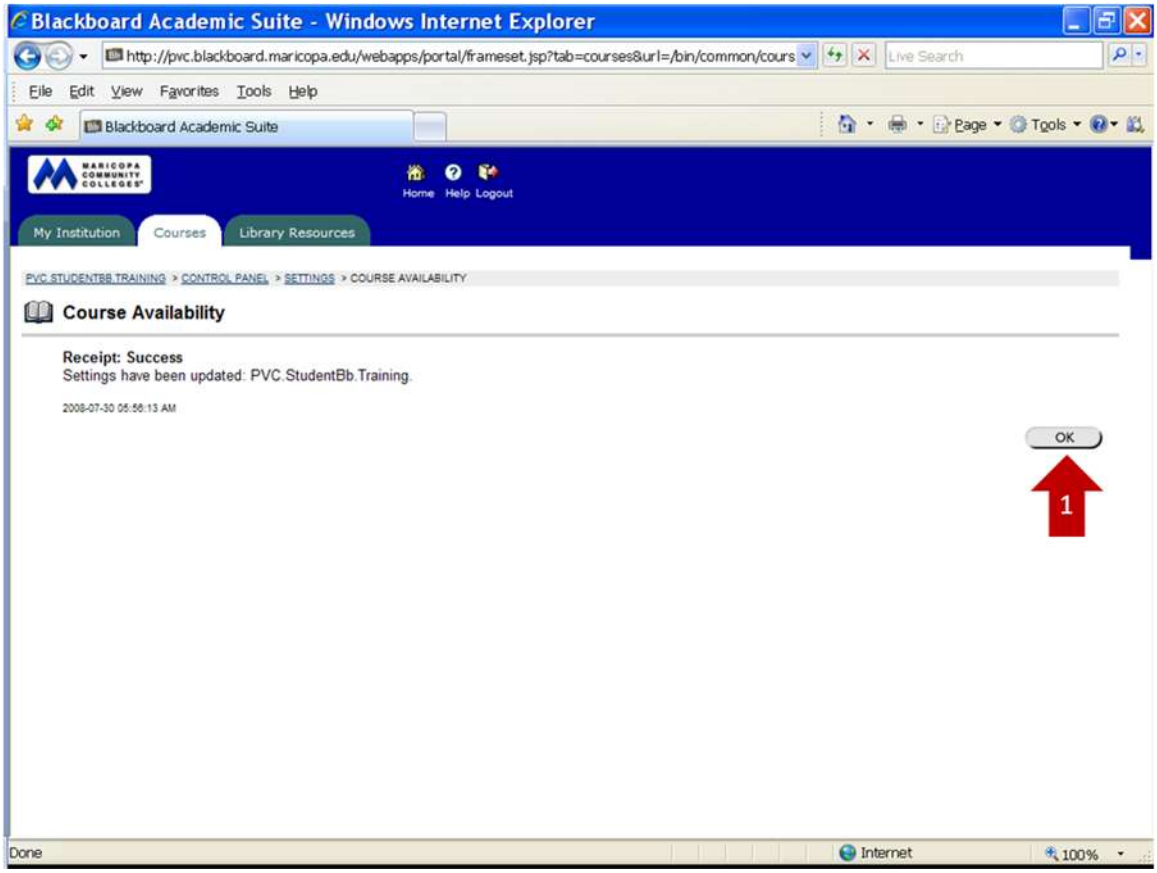
The Course Availability screen will be displayed. Click the radio button "Yes" to make your course available. Then click the Submit button.



1. Click the Yes radio button. The No button will then deselect.

2. Click the Submit button.

A confirmation screen will be displayed.



1. Click OK. You will be returned to the Settings screen. You can then click OK again to return to the Control Panel screen.

You are done!

Appendix

Recommended Blackboard Browsers

	Version	Windows® Operating Systems			Mac® Operating Systems		
		2000	XP	Vista Desktop	10.2	10.3	10.4
Microsoft® Internet Explorer® Web Browsers	5.2	N/A	N/A	N/A	N/A	N/A	N/A
	5.5	N/A	N/A	N/A	N/A	N/A	N/A
	6	C	✓	N/A	N/A	N/A	N/A
	7	N/A	✓	✓	N/A	N/A	N/A
Netscape® and Mozilla® Web Browsers	NS 7.1	C	C	✓	C	C	N/A
	NS 8.0	C	✓	✓	N/A	N/A	N/A
	Firefox 1.0	C	C	N/A	C	C	C
	Firefox 1.5				N/A	C	✓
	Firefox 2.0	N/A	✓	✓	N/A	N/A	✓
Apple® Safari® Web Browsers	1	N/A	N/A	N/A	C	N/A	N/A
	1.1	N/A	N/A	N/A	N/A	C	N/A
	1.2	N/A	N/A	N/A	N/A	✓	N/A
	2	N/A	N/A	N/A	N/A	N/A	✓

KEY

✓ = Certified – fully tested and supported
C = Compatible – key application areas tested
N/A = Not tested – specified Browser is not supported for the Operating System

P **=** Provisional – will test on Beta versions of new platforms and browsers. Certification is dependent on release by 3rd parties.

* All configurations marked as Compatible have undergone a limited engineering analysis to test areas of the *Blackboard Academic Suite* that may have browser issues.

Resources

Following is a list of resources you can utilize to help you with Blackboard.

- Online Blackboard Manual: Available in the course control panel.
- Blackboard 24/7 Helpdesk: 1-888-994-4433
- Your campus Helpdesk
    - Chandler-Gilbert: http://webport.cgc.maricopa.edu/published/t/ss/tss-new/wiki/1/index.shtml?Helpdesk
    - Estrella Mountain: http://www.estrellamountain.edu/it/
    - Glendale: http://help.gc.maricopa.edu/
    - Mesa: http://www.mc.maricopa.edu/its/tss/
    - Phoenix: http://www.pc.maricopa.edu/index.php?page=129&subpage=495
    - Paradise Valley: http://www.pvc.maricopa.edu/irts/
    - Rio Salado: http://www.rio.maricopa.edu/services/student/support/helpdesk/
    - Scottsdale: http://www.scottsdalecc.edu/its/helpdesk/
    - South Mountain: http://help.southmountaincc.edu/ResourcesFor/FacultyAndStaff/
- Your campus Instructional Technologist
- Blackboard Faculty/Staff Resources Web page: http://www.maricopa.edu/blackboard/resourcesFaculty.html
- PerceptIS help Web page: http://help.perceptis.com/maricopa/index.php . This site has a lot of good information for both students and faculty.

- Enterprise Identify Management System (EIMS):

  http://memo.maricopa.edu/mtools.html

- Personal Administration Tool (PAT): https://memo.maricopa.edu/usertool.html