

# Western Michigan University – Haworth College of Business

## CIS 3900 - BUSINESS WEB ARCHITECTURE

### Course Syllabus

Fall 2017

|                    |                           |                       |  |
|--------------------|---------------------------|-----------------------|--|
| <b>Instructor:</b> | Dr. Bidyut Hazarika       | <b>Office:</b>        | 3261 Schneider Hall                      |
| <b>Phone:</b>      | (269) 387-5217            | <b>Office Hours:</b>  | TR, 2:00 pm – 3:30 pm and by appointment |
| <b>Email:</b>      | bidyut.hazarika@wmich.edu | <b>Class meeting:</b> | T, 6:30 pm – 9:00 pm<br>SCHDR 2270       |

### BBA Learning Goals and Objectives

CIS 3900 is directly related to your ability to meet the seven (7) goals for undergraduate students receiving a degree from the Haworth College of Business:

- ✓ Students will be effective communicators
- ✓ Students will have effective team skills
- ✓ Students will acquire global business understanding
- ✓ Students will understand information technology systems
- ✓ Students will understand ethical business practices
- ✓ Students will be critical thinkers
- ✓ Students will have common business knowledge

### Course Theme

Development of business applications using web design and development technologies.

### Prerequisites

Admission to the Business Administration curriculum; also open to Telecommunications and Information Management majors and e-Business Design minors, both require junior standing.

### Course Description

This course applies human computer interaction theories, principles, and techniques to develop effective and usable web applications for the business environment. Topics include web architecture, modern web-based languages, search engines, interactive content, multimedia, and other technologies for the web. Students will evaluate the effectiveness of various web sites and develop web applications to support Internet e-business.

*This course requires a developed web system and presentation.*

## Course Approach

Internet scripting languages and applications used in this class will prepare students for expected web architectures and standards in the business environment.

About one-half of the class time will be spent in lecture and discussion. All remaining time will be spent in the Computer Classroom devoted to the "hands-on" application of current Internet-related technologies using labs, exercises, and a project.

## Course Objectives

- ✓ The objectives of this course include:
- ✓ Developing students' technical skills in supporting web applications.
- ✓ Introducing students to the criteria behind evaluating and designing effective web sites.
- ✓ Introducing students to the design theories of web client interfaces and supporting features.
- ✓ Introducing students to various approaches used to develop effective business web architectures.

## Course Key Outcomes

- ✓ After taking this course, students should be able to:
- ✓ Understand the importance of effectively designing and developing web sites to support Internet e-business.
- ✓ Understand how to effectively create multimedia interfaces using current web technologies.
- ✓ Apply information design and human computer interaction theories to various web-based projects.
- ✓ Utilize various human/computer interaction theories and effectively apply them to information presentation and management.

## Required Materials

- ✓ Felke-Morris (2017). Web Development and Design Foundations with HTML5, 8th Edition (Print ISBN: 9780134322759, eBook ISBN: 9780134323626)
- ✓ A form of media storage
- ✓ USB Flash Drive
- ✓ Google Drive
- ✓ OneDrive
- ✓ Access to a computer with Internet access
- ✓ Access to the newest versions of Chrome, Firefox, and IE
- ✓ Access to the approved development tools and environment (in CIS lab and free to download)
- ✓ Access to eLearning <https://elearning.wmich.edu/> for various items, such as lecture slides, discussions, points, lab assignments, forays, and exams.
- ✓ Supplemental Materials, such as websites and software (available on the course site and/or eLearning)

## Course Endeavors

### A Little about the Course

Web scripting languages are the building blocks of today's web-based applications, services, and interactive web sites. Although we will focus on the client-side languages in this course, we can design, develop and deploy rich sites with HTML5, CSS3, and images. When we add JavaScript to the mix, interactivity on the client-side becomes quite robust.

Developing and designing an effective web site becomes both easier and more challenging each day. No longer are designers limited to software designed for print layouts and developers have a wide variety of tools to create, deploy, and manage the multitude of programming languages. Although we will begin with scripting code, we will move into tools that enable us to architect web sites more quickly and efficiently than developers could in the past.

Finally, we will work to become information architects. With the vast amount of data presented to us via the web, organizations need to know how to best organize, manage, and present their information. We will study how and why we need to design architectures for these ever-growing multi-layered offerings most simply referred to as web sites.

### **Labs (350 points)**

We will complete five (5) programming labs throughout the semester. Lab assignments and due dates will be posted in eLearning.

### **Exams (250 points)**

There will be two (2) exams: A midterm and a final.

The final exam will be comprehensive. We will discuss the exams in greater detail in class.

### **Team Project (300 points)**

During the course of the semester teams will work to plan, design, develop, and deploy a web site to meet organizational needs. Various deliverables will be due over the course of the semester to assist the team in reaching this goal. At the end of the semester, each team will interactively present its web site and discuss how it meets not only organizational goals but also all development and design standards as discussed throughout the course.

### **Knowledge Forays and Exercises (100 points)**

Throughout the semester, brief unplanned knowledge forays and exercises will be planned to measure your skill and knowledge base. You must be present to partake of them.

These cannot be made up in any case (even a pre-excused absence), but more than the allotted number will be given so you can make the 100 points. If you are present and do well on all of them, any amount over the 100 points will be considered extra credit.

### **Extra Credit**

Please see the Knowledge Forays and Exercises section.

### **General Information**

#### **Assignments**

Unless otherwise noted, all work needs to be your own. This is not to say you cannot ask questions, discuss concepts, etc. with one another in person and on the discussion board (in fact it's encouraged), but the final product must be your own work.

Students are also expected to have read the assigned materials before the class meeting.

For the team project each member is expected to complete his/her tasks in a timely manner and adhere to both class and group expectations in terms of meetings, communication, etc. Team members will evaluate each other throughout the semester and assign a team participation grade to each member at the end of the project.

## **Due Dates**

### **Labs**

Due dates are firm. All labs are due on the due date and time. This allows for fair grading and equal treatment for all students in the course.

Because life itself is an uncertain proposition, you might have some difficulty during the semester. Therefore, you will be allowed ONE (1) late lab. This lab can be turned in 3 days after the due date. (Some restrictions apply.)

You do not need to use the "late," but no additional points are awarded for "no lates."

This offer will be available to you only ONE (1) time during the semester and I encourage you to save it for an emergency situation.

System failure, no backup disk, computer viruses, being too busy, and other such excuses are not acceptable. As in the real world, you are responsible to make sure you are prepared. Please inform me via email that you have taken your ONE within 24 hours AFTER the due date and time.

### **Knowledge Forays and Exercises**

Knowledge forays and exercises cannot be made up in any situation (even pre-excused absences), but more than the allotted number of points will be offered during the semester. (See above under Course Endeavors)

### **Team Deliverables**

Teams will turn in all deliverables on time.

### **Exams**

You are required to take the exams on the assigned days and times.

Missed exams may only be handled with a documented excuse. A documented excuse consists of letterhead from a medical doctor. This letter must include the statement "I have advised the student to stay home on the following dates: [DATES], for medical reasons." Other documentation will not be considered. Documentation not on letterhead will not be considered. Documentation that does not contain the statement above will not be considered.

If you must miss an exam due to university-sponsored event or legal mandate, documentation to this effect must be presented IN ADVANCE of the exam date. Anyone who has not received a WRITTEN (email) notice from me concerning missing an exam in advance will not be allowed to receive credit for that exam.

## **Scheduled Work**

This class requires you to work on numerous labs and other assignments throughout the semester. To be successful, it is important for you to keep up with the schedule and check it frequently.

Each student will also have team meetings, obligations, and deliverables.

While the instructor reserves the right to make changes as the semester progresses, we will always discuss and agree to major changes in the schedule.

### **Amount of Work**

This class will place great demands on your time OUTSIDE OF CLASS. You will need to be able to access a computer system and have time in your schedule for labs and completing other assignments. You will have team and client meetings that need to be scheduled throughout the course of the semester.

This is all in addition to completing the readings and making sure that you understand and can apply concepts and theories. For example, depending on the lab and your skill level, some labs might take up to 25 total hours to complete.

### **Turning in Work**

Electronic nature of our work: All of our class work is digital in nature. Resisting the temptation to "change one last item" after a deadline has passed will be paramount to your success. If you change an item (no matter how small) after the due date and time AND before you receive your evaluation, it's considered late.

**DO YOUR OWN WORK.** Do not work on an entire assignment step-by-step with other students (unless directed by the instructor). Identical errors or copying in any work will result in a grade of zero for all involved parties.

**DO NOT COPY CODE.** Anyone found copying code will receive an automatic zero for the work no matter how small the copying instance. Continued copying will result in harsher penalties. (See Academic Integrity.)

**DO ASK QUESTIONS.** Make sure to ask questions. We are here to learn and that does require you to research, code, and ask questions.

Finally, all students are treated equally and fairly. There will be no make-up work or extra projects for any individual student.

### **Attendance**

Sessions are premised on your presence. Class sessions include information far beyond that found in the texts. Therefore, I expect you to: 1) attend class, 2) read the assignments prior to each class session, 3) prepare for knowledge forays, and 4) complete all required work. Missing any of these items will have an impact on your learning and ultimately your grade. To ensure a positive learning experience and your productivity in this course, you are expected to show up on time at each class meeting throughout the entire semester. No matter whether your excuses are legitimate or not, the maximum absences permitted in the semester is two (2).

If you have more than two (2) absences (based on the collected data) in this class, your grade will automatically be an "E." Except emergencies, any class absence due to critical reasons must be pre-approved by the instructor at least 24 hours in advance. Such approval may be easily obtained by sending an email to the instructor. If necessary, you will need to prove the legitimacy of your absence.

In addition, if you come to class ten (10) or more minutes after the class start time, you will be considered "late," and if you leave the class ten (10) or more minutes before the class ending time (or dismissal), you will be considered "truant." Two counts of tardy/truant will be treated as one "absence."

Remember, if you miss a class you are still responsible for any material and class work that you miss. I encourage each of you to form class contacts to learn of items missed. Please do not e-mail me or come to office hours expecting to learn of everything we covered in a class you missed.

Ultimately, the class needs you here, and you need to be here. There is no way to duplicate class instruction and discussion. Missing classes can result in serious problems that show up in your assignments. Finally, although there are no guarantees, we will have fun every once in a while (believe it or not).

### **Participation**

To participate, you must be present and pay attention to the class task or discussion. Class comments are assessed on quality, not quantity, to a point.

### **Communication Devices**

In today's wired world, most of us are connected to information and communication systems on a 24/7 basis. In class, we need to disconnect in order to focus on our work. Because of this, all phones and other communication devices should be either muted (e.g., set on vibrate) or turned off.

Under no circumstances should you answer a device--this includes text messages--in the classroom or computer lab while class is in session. However, if you are expecting an important call (e.g., job offer), please step outside and take the call.

If your mobile phone does ring during class, I reserve the right to answer it.

### **Images and Video**

During lectures, discussions, and other class activities, there will be times when you are welcome to take photos of code with your mobile device or computer. I will always inform the class when this practice is permitted and when it is not (e.g., lecture examples [almost always permitted] versus lab code [never permitted]).

In most cases, I will also minimize the instructor screen window so you can simultaneously follow examples, take screenshots, and make notes on your computer as well.

As long as everyone follows the guidelines this practice will be permitted. Infractions will result in this privilege being discontinued for the semester.

No videos are permitted in the classroom.

### **Professional Written and Oral Communication Standards Guideline**

Effective communication skills are critical to Haworth College of Business students' personal and professional success. In accordance with the College's learning goal that students must be effective communicators, business students must practice professional standards in written and oral communications. Students' assignments, therefore, must meet minimum standards to be acceptable. Standards for written work address errors in form including spelling, punctuation, format, and basic grammar, as well as technical English errors. Standards for oral work include professionalism in demeanor and dress, presentation delivery skills, quality of graphic support, and the above standards for written work. If these standards are not adhered to, the student's grade may be adjusted accordingly. Students are encouraged to seek assistance through the Haworth College of Business Communication Center.

## **Respect and Intellectual Freedom**

Many opportunities for debate and discussion abound in this course. You also will have many opportunities to work with classmates who espouse different views and opinions. While we can always discuss ideas and issues openly, we must also respect one another as human beings.

## **Responsibility**

You are responsible for your individual work in this class. This includes doing the work and maintaining standards of academic integrity.

## **Academic Integrity**

You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate Catalog

<http://catalog.wmich.edu/> that pertain to Academic Integrity.

These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct <http://www.wmich.edu/conduct/>. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing.

You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

In particular for this class, please note the University's policy on computer misuse

<http://www.wmich.edu/it/policies/>: "Computer misuse is disruptive or illegal use of computer resources." The instructor may pursue any evidence of computer misuse.

## **Other Important Policies**

- ✓ Civility: [http://wmich.edu/sites/default/files/attachments/u370/2016/Civility%20Stmt.7-27-16\\_0.pdf](http://wmich.edu/sites/default/files/attachments/u370/2016/Civility%20Stmt.7-27-16_0.pdf)
- ✓ Diversity: <http://wmich.edu/diversity>
- ✓ Religious Observance: <http://www.wmich.edu/policies/religious-observances-policy>
- ✓ Sexual Assault and Misconduct Policy: <http://www.wmich.edu/sexualmisconduct/>
- ✓ Student Disabilities: <http://www.wmich.edu/disabilityservices/>

## **Communication**

### **eLearning**

You are responsible for reading the postings and announcements on eLearning and on your WMU email account.

You should also check eLearning for resources, schedule updates, special instructions on assignments, etc. Keeping up to date with that material is almost as important as attending class.

I will also post all announcements to eLearning.

## **Email**

If you leave email, in most cases you will have a response within 24 hours after I receive the email. Sometimes this response may be to simply set up an appointment if it's something better discussed in person.

Use the subject line to help me identify an email coming from this course. Putting CIS 3900 at the beginning will help me sort my numerous daily emails and address yours. For example, you might use the following Subject line:

Subject: [CIS 3900] What's a Widget?

Use your WMU email for individual course correspondence. I guarantee replies to @wmich.edu

When sending programming questions make sure to include code in a complete file and screen shots when applicable. Specific questions referencing code lines and programming structures will help me assist you to the fullest.

## **Problems**

If you find yourself having trouble in this class, you are responsible for talking about the nature of your difficulty while there is still time left to do something about it.

## **Questions**

If you have any questions about this syllabus or other class matters, please feel free to discuss these issues at some mutually agreeable time, or email.

## **Assignments and Evaluations**

You are responsible for keeping track of your assignments and progress in this course. Save all your graded assignments (including email) so that you will have a complete record of your scores. All assignment evaluations will be uploaded into eLearning.

Your grades will be periodically posted on eLearning. You are responsible for checking your grades and reporting (and proving) any errors in your record within one week of the posting. You'll be notified via eLearning when points are posted.

You are responsible for knowing what happened in class, including changes in assignments or due dates, regardless of whether you attend.

You are responsible for reading the textbook and web readings, and for asking questions about material that you don't understand.

## **Grading**

You will be evaluated based on various assignments and exams created throughout the semester to demonstrate not only your understanding of various scripting concepts, design principles, and development approaches but also your proficiency in selected technologies and applications.



| Assignments                 |             |
|-----------------------------|-------------|
| <b>Labs</b>                 | 350 points  |
| <b>Forays and Exercises</b> | 100 points  |
| <b>MidTerm Exam</b>         | 100 points  |
| <b>Final Exam</b>           | 150 points  |
| <b>Team Project</b>         | 300 points  |
| <b>Total Points</b>         | 1000 points |

## Final Grade

Final grades will be based on accumulated points:

| Final Point Scale |                    |
|-------------------|--------------------|
| <b>A 940-1000</b> | <b>C 700-759</b>   |
| <b>BA 880-939</b> | <b>DC 650-699</b>  |
| <b>B 820-879</b>  | <b>D 600-649</b>   |
| <b>CB 760-819</b> | <b>E Below 600</b> |

## Incomplete Policy

This is a temporary grade that the instructor may give to a student when illness, necessary absence, or other reasons beyond the control of the student prevent completion of course requirements by the end of the semester or session. This grade may not be given as a substitute for a failing grade.

A grade of "I" must be removed by the instructor who gave it or, in exceptional circumstances, by the department chairperson. If the unfinished work is not completed and the "I" grade removed within one calendar year of the assignment of the "I," the grade shall be converted to an "E" (failure). Students who receive an incomplete grade in a course must not reregister for the course in order to remove the "I."

## Computer Lab Etiquette

At the start of a new semester, it's always a good idea to have a brief talk about computer lab etiquette. Below are a few rules that we're all expected to follow - especially in the CIS lab.

### Entering after Class Begins

If you are late to class, please enter the computer classroom from the back door. Under no circumstances should you walk in the front door once the class begins. It's distracting to the instructor and your fellow students. I will remind you if you forget. Don't make late entrances a habit in any case.

### Consuming Food and Beverages

Under no circumstances should food be consumed in the computer classroom. Too often we find food wrappers on the floor and crumbs in the keyboards. If you have a beverage you haven't finished before class, make sure to place it on the floor. If it can be helped, don't bring beverages to class.

### Using Personal Systems

Laptops, tablets, and smart phones are more than welcome in the lab.

During lectures and class work, refrain from checking email, surfing the Web (unless it's part of a class exercise), chatting, etc. Not only do you distract yourself but also others.

If you make any of the above activities a habit, you'll be asked to not sit at a system or use a device during specific class sessions.

### **Using Mobile Phones and Communication Devices**

If you must have your mobile phone or communication device on, place it on vibrate. Don't talk or text on a mobile phone during class time. If your mobile phone does ring, I reserve the right to answer your phone. Phone camera policy, discussed in the syllabus, applies here as well.

If you are expecting an important phone call (e.g., job offer), please take the call outside of the classroom.

### **Respecting the Workspace**

We all share this workspace. Please respect that this is a working environment and not your own personal area. Keep feet on the floor--not on chairs--and clean up after yourself when you leave.

### **Partaking of Other Work**

We'll have plenty to keep us busy during class. However, if you are allotted class time for course work and have finished all pending assignments (to include labs), feel free to work on other class assignments as long as they do not disturb the