

BUS ADM 810
University of Wisconsin-Milwaukee
Sheldon B. Lubar School of Business

Course Information

- Course title: **Developing Web Based Solutions**
- Course number: **Bus Adm 810**
- Semester: Fall 2016
- Prerequisites: Prereq: grad st; Bus Adm 740(P).
- When it meets: M, 5:30 – 8:10
- Where it meets: Lubar Hall S311
- URL: <http://d2l.uwm.edu>

Instructor Information

- Name: Ross Hightower
- Office: Lubar Hall – N334
- Office hours: MW 4:00 – 5:30, TR 9:00-11:00 and by appointment.
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- Mailbox: Lubar Hall 4th Floor
- E-mail address: hightowe@uwm.edu

Materials and Textbook

These books are recommendations. There are other options including many tutorials and blogs on the web.

- *Aurelia For Real World Web Applications*, Dwayne Charrington, LeanPub Press, <https://leanpub.com>
- *Express in Action*, Evan Hahn, Manning Press, <https://manning.com/>
- *Pro Git*, Scott Chacon and Ben Straub, <https://git-scm.com/book/en/v2>

Course Description and Prerequisites

In this course we will use a variety of open source tools to develop web applications. The course requires that you program non-trivial applications in JavaScript, HTML and CSS. If you have never programmed or are not comfortable programming, don't take this course. If you don't know JavaScript but have programmed in another language, you will find JavaScript is easy to pick up. On the other hand, I will not be teaching you JavaScript. The examples I cover in class will use JavaScript and I will explain them thoroughly but I will not be covering the language from the ground up. **If you are uncomfortable with this, don't take this class.**

Course Learning Outcomes

Upon successful completion of this course, the student will:

- Understand the web development paradigm and the role of web services.
- Create a web server based on Node.js.
- Use a database on MongoDB.
- Create a RESTful services API.
- Create web based applications that consume RESTful services

Grading Policy

Application Development Projects (75%)

The grading in the course is primarily based on the two programming projects. The grading scheme is shown below.

To get an A:

- You must complete both applications as defined in the functional requirements on the D2L site.
- The applications must work.
- You must apply an acceptable level of styling to the applications.
- The applications must be submitted on or before the due date specified below.

To get a B:

- You must complete one application as defined in the functional requirements.
- You must complete more than 50% of the second application.
- The portions of the applications that are complete must work.
- You must apply an acceptable level of styling to the applications.
- The applications must be submitted on or before the due date specified below.

To get a C:

- You must complete one application as defined in the functional requirements.
- The application must work.
- You must apply an acceptable level of styling to the application.
- The applications must be submitted on or before the due date specified below.

To get a D:

- You must complete 50% of one application as defined in the functional requirements.
- The portion of the application you complete must work.
- You must apply an acceptable level of styling to the application.
- The applications must be submitted on or before the due date specified below.

To get an F:

- Anything less than the above will earn an F.

I am the final judge of whether you meet the requirements. If you submit an application early enough for me to evaluate it and there are problems, I will return it to you to fix it if you want. However, evaluating these applications will take some time. Turning it in a day early does not give me sufficient time to evaluate it. I can't give you a specific time period. It depends on my workload at the time you turn it in. To be safe you should make sure the application works before you submit it.

Exams (25%)

I'm not a fan of exams but, unfortunately, some testing is required. There will be two hands on exams. The first will require you to write a relatively simple application server similar to the application server we will develop in class. In the second, you will have to develop a client that

connects to an API that I will provide. The client will be based on the client we develop in class.

A Word of Advice

I say it every semester: don't wait until the last minute. That advice is more important in this class than others. These applications are non-trivial and since they count for 75% of your grade, it would be very risky to wait until the last week or two to start the applications. Make it a goal to complete the applications two weeks before the final due date to give yourself some leeway.

Lecture Schedule

This schedule will be adjusted to meet the class' requirements.

Day	Topics
9/11	Web Development JavaScript I'll be out of town this week so watch the videos on the D2L site.
9/18	Introduction to Node.js Creating a simple web server with Node.js JavaScript
9/25	Express.js Web Services Express.js Routing Grunt JavaScript
10/2	Git Unit tests Error Management JavaScript
10/9	MongoDB MongoDB and Mongoose Mongoose Schemas
10/16	Web API and Mongoose
10/23	HTML/CSS/Bootstrap
10/30	Exam 1
11/6	Aurelia: Introduction Aurelia: Data Binding

11/13	Aurelia: Value converters Aurelia: Routing
11/20	Aurelia: Connecting to the backend Aurelia: CRUD operations CORS
11/27	Authentication and Authorization
12/4	Work Day/Overflow Day
12/11	Exam 2
12/18	Last day to submit applications

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Statement of Academic Misconduct

Chapter UWS 14, entitled “Student Academic Disciplinary Procedures,” of the Wisconsin Administrative Code contains rules enacted by the University of Wisconsin Board of Regents that apply to all University of Wisconsin–Milwaukee students. Section 14.01 states, “The Board of Regents administrators, faculty, academic staff and students of the University of Wisconsin System believe that academic honesty and integrity are fundamental to the mission of higher education and of the University of Wisconsin System. The University has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. ... Student who violate these standards must be confronted and must accept the consequences of their actions.”

Statement of Sexual Harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the careers, educational experience, and well being of students, faculty, and staff. The University will not tolerate behavior between or among members of the University community which creates an unacceptable working environment.

Discriminatory Conduct

The University of Wisconsin-Milwaukee remains steadfastly committed to the principles of academic freedom. This commitment requires an equally strong obligation to foster respect for the dignity and worth of each individual. Without this respect, the principles of academic freedom become meaningless. Moreover, relationships such as student-faculty and employee-supervisor have inherent power differences that compromise some persons’ ability to protect their own rights. Therefore, this University must provide an environment that respects the value of each individual and which does not tolerate discriminatory conduct of any kind.

University Policies Regarding Change of Registration/Adding and Dropping or Withdrawal from Classes

After initial registration, students have the opportunity to modify their class schedule by adding, dropping or withdrawing from classes during specific periods prior to the start of the semester.

Such changes can be made without financial penalty until shortly before the start of the term (or before the start of a particular summer session). However, significant financial penalties can apply for changes made beyond the appropriate deadline, and some departments have unique deadlines and approval requirements governing how and when students may add and drop particular courses. Some academic programs also require their students to obtain specific approval for adding or dropping courses. Consult the most recent *Schedule of Classes* for dates, deadlines and procedures or contact the Business School Undergraduate Student Services office.

University Policies Regarding Repeating Courses

Unless a restriction is stated in the *Schedule of Classes*, undergraduates may repeat any course **only once**. Under exceptional circumstances, one more repeat may be allowed following approval of a written appeal to the advising office of the student's school or college. Except in the case of courses with variable content (which may be repeated for credit as often as permitted for that particular course, as specified in UWM Bulletins), both grades earned for repeated courses will appear on the student's academic record, but only the higher grade will be calculated into the grade point average. Students illegally repeating courses will be dropped, and "WR" will be assigned to the course on the student's academic record.

Students who took a course as a repeat prior to Fall 1988 are entitled to one additional enrollment. Transfer students who did not previously take a course at UWM are entitled to one repeat at UWM of a course taken at a previous institution.

In courses of limited enrollment, qualified students who have not taken the course previously have priority. It is generally advisable for any student to consult an advisor before registering to repeat a course.

University Policy Regarding Incompletes

An Incomplete may be given to a student who has carried a subject successfully until near the end of the semester but, because of illness or other unusual and substantiated cause beyond that student's control, has been unable to take or complete the final examination or to complete some limited amount of term work. An Incomplete is not given unless the student proves to the instructor that s/he was prevented from completing course requirements for just cause as indicated above.

A course marked Incomplete must be completed during the next succeeding semester, excluding summer sessions and UWinterIM. If the student does not remove the Incomplete during this period, the report of "I" will lapse to "F".

University Change of Grade Policy and Procedures

The following is from UWM Faculty Document No. 1927, May 12, 1994, entitled "Policies on Grading and Grade Records". Grade or Record Changes. Instructors may not change a semester grade after the grade sheet has been submitted to the Registrar except for an inadvertent error in determining or recording the grade. Any change in a student's grade or record, including retroactive change to drop, withdrawal, or incomplete, must receive the approval of the Dean of the School or College in which the student was enrolled at the time the course was taken.

Special Accommodations

If special accommodations are needed in order to meet any of the requirements of the course, please contact the professor as soon as possible. Students will be allowed to complete examinations or other requirements that are missed because of a religious observance.