



Interactive Arts + Media

## SCRIPTING FOR WEB AND MOBILE II

36-2421-01 – 3 credits  
12:30pm Tuesday  
916 S. Wabash Ave, 129

Interactive Arts and Media  
Columbia College Chicago  
916 S. Wabash Ave. Chicago IL  
<http://iam.colum.edu>

**Instructor Name:** *Brendan Metzger*  
**E-Mail Address:** *bmetzger@colum.edu*  
**Fax Number:** *312-369-8084*  
**Office/ Mailbox:** *916 S. Wabash Ave. Rm: 101*  
**Office Hours:** *by appointment*  
**Class portal:** <http://lms.colum.edu/>

**Dept. Phone:** (312) 369 7750  
**Office Phone:** NA  
**Home Phone:** NA

**Introduction:** Advanced Scripting for Web and Mobile moves beyond fundamentals into an applied study of front-end web development practices and techniques. While JavaScript will be the major point of emphasis, students will develop proficiency with HTML and CSS best-practices. Through exercises, projects, quizzes and research, students will learn practical and professional JavaScript development skills.

**Course Description:** This course builds on concepts introduced in Scripting for Web and Mobile. Students build advanced applications using markup, JavaScript, script libraries, and other tools and technologies. At the completion of this course students will have one or more applications for their portfolio.

**Prerequisites:** *Scripting for Web and Mobile I*  
**Instructional Resource Fee:** \$70

### **Add/Drop and Withdrawal Dates:**

- **January 28:** End of program revision and late registration, last day to add classes or change course sections
- **February 4:** Last day to drop classes. The class will not appear on your academic record
- **March 18:** Last day to withdraw from classes

### **At the conclusion of this course students will be able to:**

- Demonstrate knowledge of responsive and participant-centered development for a range of devices.
- Iteratively develop with paper and functional prototypes to create participant-centered applications.
- Use script libraries and open-source software to create software for web and mobile platforms.
- Develop applications using scripting language fundamentals.

**Course Work and Grading:**

In addition to the general work discussed above, your performance in this class is judged in part on participation, writing and critique assignments, exams, and the final project.

**Assignments and Projects:** Assignments and Projects are to be submitted via Oasis, or by the process indicated by the instructor, prior to the start of the class they are due. You may place a safety copy in the [\\Siam2\ClassFolders\<class name>](#) "Drop" folder if you wish. If you do not submit the assignment at the time it is due, your grade on that assignment will be reduced as follows: 10% of your final grade on the assignment, per day. No assignment will be accepted over 1 week late. THIS IS A HARD AND FAST RULE -- NO EXCEPTIONS. No assignments will be accepted after the end of the last class. Problems with computers (printers or emails) do not suffice as explanation for late assignments. In the event that you email an assignment because of an absence, you must confirm receipt of that email and still turn in a hard copy to the instructor's mailbox upon your return to campus.

**Course Work Percentage Breakdown**

Assignment	Quantity	% of course
Assignments/Projects	5	50%
Quizzes (non-comprehensive)	TDB	0%
Attendance, Participation, In-Class Exercises	Weekly	30%
Practice	Weekly	20%

Please note that grades are assigned as follows:

A = Above 93%  
 A- = 90 – 92.9%  
 B+ = 87 – 89.9%  
 B = 83 – 86.9%  
 B- = 80 – 82.9%

C+ = 77 – 79.9%  
 C = 73 – 76.9%  
 C- = 70 – 72.9%  
 D = 60- 69.9%  
 F = 59.9% and below

The instructor is the final arbiter of all grades for the class. The instructor is the final arbiter of all grades for the class. Posted grades do not necessarily reflect the final grade you will receive in the class. Please note that the only grades given in this class are as follows:

Quality of Performance	Description	Grade
Excellent	The student has exceeded the high expectations of the course (excellent effort and products).	A, A-, B+
Good	The student has met the high expectations of the course (good effort and products).	B, B-, C+
Satisfactory	Acceptable achievement. The student has shown some effort and is showing growth, but is not meeting the high expectations of the course.	C
Poor	Minimal achievement (The student has not met the requirements of the class and must repeat the course, if required by their Major.)	C-, D
Failure Incomplete	Inadequate achievement (The course must be repeated.) See section on Incomplete Grade below.	F Inc.

**Grade Requirements for Major:** You are required to finish with a “C” grade or better if this class is required for your Major, or is a prerequisite for a class required by your major. If you do not, you must take this class again and cannot advance to the next required class.

**Incomplete Grade:** An Incomplete Grade (I) can only be issued for an undergraduate student who has met the following criteria: The student has successfully completed all course requirements to date but is faced with unexpected circumstances during the final weeks of the semester resulting in the inability to complete course requirements by the end of the semester. The student must have, in the instructor’s estimation, the ability to complete missed course requirements outside of class and by the end of the eighth week of the following semester. The instructor must agree to evaluate the student’s work and replace the Incomplete grade before the end of the following semester. An agreement specifying work to be completed and a due date must be signed by both instructor and student and approved by the Department Chair. In the event that an instructor is no longer employed by the College, a program Coordinator, Director, or the Department Chair can evaluate the work and assign the course grade.

**Grade Challenges:** A student has the right to appeal academic decisions that affect his or her record at Columbia related to grade changes, attendance penalties, and incomplete grades. Please consult the Academic Grievances sub-section of the Undergraduate Academic Policies section of the Columbia College Chicago 2014-2015 Course Catalog available at <http://catalog.colum.edu/index.php?catoid=6> for information on the required process.

### **Academic Progress Report (APR)**

New Federal guidelines require that students be dismissed from the college who fail to attain "Satisfactory Academic Progress" (SAP) for two semesters in a row. SAP is defined as achieving at least a 2.0 GPA, and a 2/3 completion rate (e.g., 4 classes successfully completed out of 6 classes enrolled; note that withdrawals do not affect GPA but DO affect completion rate). Columbia College has a range of programs to help students with difficulties, and has implemented a new Academic Progress Report (APR) to identify students who may benefit from that help.

**During the fifth week of the semester**, teachers will review a checklist of their students, and rate each student "Satisfactory," "Unsatisfactory," or "Never Attended." Students rated "Unsatisfactory" will be contacted and help will be offered. The APR rating is NOT a grade -- it's an advising tool to help students in their progress toward a Columbia College degree.

### **Required Texts and Supplies/Materials**

#### ***Required Texts –***

- <http://eloquentjavascript.net/>
- **Javascript The Definitive Guide, Flannigan**

#### ***Additional or Background Reading –***

- *Various documentation resources and tutorials will be referenced frequently:*
- <https://developer.mozilla.org/en-US/>

#### **Additional Materials:**

- Flash Drive (highly recommended)
- Text Editor (many free available)
- FTP Client

**CLASSROOM POLICIES:**

**Email:** All students are assigned a @loop.colum.edu email when they first register. This is the only email that instructors use to contact you about assignments, scheduling, or other classroom issues. It is your responsibility to check this email regularly for information. You can access your @loop.colum.edu email via a link at the bottom of the left hand column of the Oasis portal. (<http://oasis.colum.edu>) We recommend that you either check that email daily or forward it to an email account that you do check daily.

**Backup and Archival Policy:** Students are responsible for maintaining their own backup copies of all digital works. The Interactive Arts and Media department provides each registered student with server storage space as a courtesy and convenience, but does not guarantee access to that server space nor does it guarantee the safety of those digital files. Maintain your own electronic backup of your important files.

Additionally, as part of this class, you may be asked to provide all class work, documentation, proposals, and projects in electronic form on a CD or DVD-ROM on the last day of class. Your instructor will inform you if this is required, and of the specifics of the requirement.

**Academic Honesty and Conduct:** Academic honesty is expected of all students. Any inappropriate use of materials or plagiarism will not be tolerated. (See Academic Integrity Policies on pg. 18 of the Columbia Catalog.)

In line with Columbia's Student Code of Conduct, students are reminded that Columbia expects students to treat each other, faculty, and staff with respect. Harassment of any kind is forbidden, as is exposing students or faculty to material and images that might be considered offensive.

All work submitted in this course for academic credit must be your own original work, the original work of the group of students cooperating in a project, and/or adhere to all relevant copyright and intellectual property ownership laws. You are all responsible for your own work, and while consultation and discussion of course topics with other students is encouraged, submitting another student's work as one's own - in whole or in part - will result in a zero for that assignment for all students involved. Additional penalty for violation of this policy could be extended to include failure of the class or other disciplinary action at the discretion of the instructor, the department, or Columbia College Chicago.

For more information on the use of copyright material please consult the following sources –

Copyright and Fair Use - <http://fairuse.stanford.edu/>

The U.S. Copyright Office - <http://www.copyright.gov/>

Digital Millennium Copyright Act - <http://www.copyright.gov/legislation/dmca.pdf>

Fair Use of Online Video - <http://tinyurl.com/5gw89s> (American University)

**Attendance:** Students are expected to attend every session and arrive on time, prepared for the class at the indicated start time. It is the Interactive Arts and Media departmental policy that a student automatically fails the class upon their third unexcused absence. (You are out on the third strike.) Two late arrivals (after the beginning of class) equal one absence. Lateness of more than one-half hour is the equivalent of an unexcused absence. Students leaving class early are considered late for the amount of time missed. Students who do not get to class before mid-class break, or do not return after the break, will be marked as absent for that session. Medical and other emergency leave of absences follow a different policy. Please contact your instructor if such a situation arises.

Students are expected to maintain communication with their instructor regarding their presence in class. Maintaining communication with the instructor allows that instructor the option of marking an absence as excused, rather than unexcused, at his or her discretion. All communication regarding an absence or lateness should occur before the session in question. Contact information for the instructor is at the top of this syllabus.

An absent student is still responsible for turning in all required assignments on time, unless a prior arrangement is made with the instructor. The instructor may, at his or her discretion, require make-up work or assignments in the place of missed class work.

**Class Website and Blog Policy:** As part of this class, you will be expected to create and maintain a class portfolio website or blog. This website should feature all of your in-class and homework assignments. It is your responsibility to maintain working links to all of these projects. These links will be used for grading the projects and a missing link will be considered the same as a missing assignment. You are responsible for insuring that a blog posting appears properly after submission. You are also solely responsible for the content of your class website and/or blog. (See the information on Academic Honesty and Copyrights in a preceding section.)

## **STUDENTS WITH DISABILITIES**

Columbia College Chicago seeks to maintain a supportive academic environment for students with disabilities. Students who self-identify as having a disability should present their documentation to the Services for Students with Disabilities (SSD) office. After the documentation has been reviewed by the SSD office, a Columbia College accommodation letter will be provided to the student. Students are encouraged to present their Columbia accommodation letters to each instructor at the beginning of the semester so that accommodations can be arranged in a timely manner by the College, the department, or the faculty member, as appropriate. Accommodations will begin at the time the letter is presented. Students with disabilities who do not have accommodation letters should visit the office of Services for Students with Disabilities, Room 304 of the 623 S. Wabash building (312-369-8296).

## **LEARNING STUDIO**

The Learning Studio, located on the first floor at 618 S. Michigan, is an excellent resource for your academic progress and success. The Learning Studio provides tutoring from Accounting, from the Science and Math Learning Center, from the Foreign Languages Lab and from the Writing Center. Students who use the Learning Studio tend to get better grades, so I encourage you all to make the most of this opportunity. You can make an appointment through Oasis (using the "My Appointments" tab), call the Learning Studio at 312-369-8130, or drop in. Please visit the website at [www.colum.edu/learningstudio](http://www.colum.edu/learningstudio) for more information.

**IAM OPEN LAB HOURS:****Computer Labs:** 916 South Wabash Rm: 122For lab hours and software inventory, see [http://imamp.colum.edu/mediawiki/index.php/RM\\_122](http://imamp.colum.edu/mediawiki/index.php/RM_122)**SEMESTER SCHEDULE**

Coursework will consist of 5 assignments, regular practice checkups and class participation. Weekly quizzes may be administered as a participation activity and will be graded, but points will not be earned or lost from quizzing.

Class	Date	Lecture/Class Topics
1	Jan 24	Intro to course, survey, review HTML/CSS/JavaScript, development tools, REPL consoles, your course site, etc.
2	Jan 31	Review array, function and object declarations. Control structures including loops and conditions. Intro to advanced operators, values, etc.
3	Feb 07	Review DOM traversal, query selection and manipulation. Intro to event-based programming, and controlling scope with functions (IIFE)
4	Feb 14	Event listeners; adding/removing to DOM Elements, bubbling and preventDefault. Intro to 'this' object references and function binding
5	Feb 21	Controlling time with Date objects, intervals and timeouts. Intro to JSONP. HTML5 topics like data attributes, localStorage and MediaElements will be introduced.
6	Feb 28	Introduction to XMLHttpRequest, first-class functions, and iterators (array-like structures like classList ,nodeList)
7	Mar 07	Continued work with XHR and same-origin-policy. Intermediate use of objects and prototypes and 'new' operator.
8	Mar 14	Quiz recap, midterm critique and Discussion, semester review, survey and next steps
-	Mar 21	Spring Break
9	Mar 28	Advanced topics: Building applications on top of 3 <sup>rd</sup> party API's. Intro to type coercion and error checking with try/catch
10	Apr 04	Advanced topics: RequestAnimationFrame, recursion, drawing/animation. More on scope and closures.
11	Apr 11	Advanced topics: "OO" programming in JS and prototypal inheritance. Continued research of scope/closure through function binding.
12	Apr 18	Advanced topics: with solid understanding of functions, deep dive into 'this' and object prototypes.

13	<i>Apr 25</i>	Advanced topics: concepts of functional programming including pure functions, map, reduce, partial-application and composition.
14	<i>May 02</i>	JavaScript frameworks and methodologies including server-side technologies.
15	<i>May 09</i>	Quiz Recap, Semester Review, Final Critique and Discussion. Farewells.

**NOTE:** This syllabus is subject to change as the course proceeds. Up-to-date timelines, grades, and course materials will always be provided online. You will be notified of any and all changes.

A copy of this syllabus is available electronically in the section for this class in Moodle.  
(<http://lms.colum.edu/>)