Syllabus
CSC359 Advanced Topics: Applications for the Web
Professor Leon Tabak
Block 8
April 17, 2023 to May 10, 2023

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1 Description of our course

- We will develop our JavaScript programming skills.
- We will learn how to use a popular software library.
- We will practice sharing our results with our peers.

2 Our meeting times and places

- My office is in West Hall 211.
- You may call me in my office at (319) 895 4294.
- You may send me electronic mail at ltabak@cornellcollege.edu.
- I will be in my office and available to meet with you Monday through Friday from 2:00 p.m. until 2:30 p.m.
- We will all meet together in the classroom in the mornings and in the afternoons.

	Where	**When**
Classroom/Laboratory	West Hall 200	9 a.m. to 11 a.m.
Classroom/Laboratory	West Hall 200	1 p.m. to 2 p.m.

3 Textbook

React Up & Running: Building Web Applications
Stoyan Stefanov
O'Reilly Media 2021
ISBN: 978-1-492-05146-6

- GitHub repository (with code examples and exercises)

3.1 Software

You will need Google Chrome, Node, React, and a text editor. Many React programmers prefer Visual Studio Code.

All this software is available at no cost.

- Node.js
- React
- Chrome Web Store (search for React Developer Tools)
- Visual Studio Code

3.2 Some of our online resources.

- Learn React: Quick Start
- Node(includes link to Getting Started Guide)
- W3Schools' React Tutorial(W3Schools also offers references and tutorials for JavaScript, HTML, and CSS)
- Intro to HTML and CSS(Udacity)
- Intro to JavaScript(Udacity)
- Javascript ES6: A New Frontier for Javascript(a brief article from Udacity)
- ES6—JavaScript Improved (Updates to the JavaScript language)(Udacity)
- React Basics(Coursera)
- Developing Front-End Apps with React(Coursera)

4 Etiquette for the Classroom

Please show respect to your classmates, to me, and to the seriousness of our enterprise by exercising the following courtesies:

- Please give your attention to whomever is speaking. You cannot view unrelated pages on the Web and be part of our class' discussion at the same time.
- You learn from your classmates. Be generous in offering help to classmates in the laboratory. Take interest in your classmates' work. Encourage them. Compliment them for work that is well done. Give them a good audience when they stand at the front of the room to present their work. Show these courtesies to all of your classmates.
- Please do not interrupt the class by late entries or early departures. If you anticipate a need to be absent from all or part of one of our meetings, please notify me in advance of your anticipated absence.
- You may listen to music while working in the laboratory so long as you are still able to hear your name when called and you do not disturb neighbors.
- Please refrain from bringing food or drink into the classroom or laboratory. We can make reasonable exceptions for eating that is not noisy and foods that do not have strong smells.

  Acceptable beverages and foods include water, tea, and granola bars. Bringing breakfast to class is not courteous.

  Please clean up crumbs and spills. Please dispose of empty containers and leftovers.
- Please dress as you might for an employer in the software engineering industry.

  Software engineers dress casually, but neatly. You do not have to purchase new clothes!

  Please keep your shoes on. Wearing hoods, hats, or sunglasses (except when there is a medical reason for shielding the eyes) that hide your face is not courteous.
- Imagine that you are seeking employment. How will you present yourself to your prospective employer?

  Imagine that you are now employed in a software engineering firm. How will you speak to your teammates, the head of your team, and your company's clients?

  Imagine that your grandmother has purchased the company for which you work. She has joined you in the company's conference room to hear and

see you walk through the code that you have written for the company (her company).

Are there some words that you will keep out of your vocabulary during this hour?

5 Policies

Cornell College is committed to providing equal educational opportunities to all students. If you have a documented learning disability and will need any accommodation in this course, you *must* request the accommodation(s) from the instructor of the course and no later than the third day of the term. Additional information about the policies and procedures for accommodation of learning disabilities is available on Cornell College's Web site.

Please also familiarize yourself with the college's statement on academic honesty and its policies for dropping courses.

6 Goals

We will give special attention to three of Cornell College's Educational Priorities and Outcomes:

- Communication—working in teams, you will learn with one another and from one another. You will take a turn as the teacher, sharing with your classmates and instructor what you learn about machine learning.
- Knowledge—you will gain proficiency with tools and disciplines that have wide application in computer science. You will increase your technical vocabulary and develop your understanding of mathematics. You will learn how to speak confidently about a very important field.
- Vocation—in your search for tutorials and in your reading of predictions for the future of machine learning, you will become acquainted with leaders in this field. You will learn more about where opportunities lie and what the experts believe you must do to qualify yourself for opportunities.

7 Schedule & Evaluation of Work

Please arrive each day rested and prepared to contribute to our discussions. Show steady progress in your study of JavaScript, HTML, CSS, the React library, and Single Page Applications. When you anticipate a need to be late, to leave early, or to be absent, please give advance notice.

7.1 Daily work (team work)

Your daily work will be a mix of reading, writing, and coding.

You will work in a team of three, four, or five people. Discuss what you are reading with your teammates. Share your writing. Help one another with the coding.

Each day you and your teammates will will answer 3 questions:

- What did you do yesterday?
- What are you planning to do today?
- How can we help you?

Delegate one member of your team to speak for the team on each day. Rotate this responsibility so that every member gets experience presenting to the class.

7.2 Graded exercises

Four graded exercises will each include questions that test your understanding of the concepts, terms, and code that we will have studied during the week before the graded exercise. These questions will ask for short answers.

Writing and coding that you do in and out of the classroom during the week will be due on the day of the graded exercise. This work will determine a part of your score on the graded exercises.

7.3 Grading formula

	Activity	**Points**
	Daily Work	20
	Graded exercise 0 (Friday, 21 April 2023)	20
	Graded exercise 1 (Friday, 28 April 2023)	20
	Graded exercise 2 (Friday, 05 May 2023)	20
+	Graded exercise 3 (Wednesday, 10 May 2023)	20
		100

8 Calendar

	Mon	Tue	Wed	Thu	Fri
Week 0	17	18	19	20	21
Week 1	24	25	26	27	28
Week 2	01	02	03	04	05
Week 3	08	09	10	11	12

9 Schedule

9.1 Week 0

9.1.1 Monday, 17 April 2023

Discuss: Our goals and methods for our study.

Software that we will use in this course.

Recommendations of online learning resources that might find helpful.

Return to calendar.

9.1.2 Tuesday, 18 April 2023

Read: Chapter 1: "Hello, World" of *React Up & Running*.

Return to calendar.

9.1.3 Wednesday, 19 April 2023

Read: Chapter 2: "The Life of a Component" of *React Up & Running*.

Return to calendar.

9.1.4 Thursday, 20 April 2023

Read: Chapter 2: "The Life of a Component" of *React Up & Running*.

Return to calendar.

9.1.5 Friday, 21 April 2023

Write: Graded exercise 0.

Return to calendar.

9.2 Week 1

9.2.1 Monday, 24 April 2023

Read: Chapter 3: "Excel: A Fancy Table Component" of *React Up & Running*.

Return to calendar.

9.2.2 Tuesday, 25 April 2023

Read: Chapter 3: "Excel: A Fancy Table Component" of *React Up & Running*.

Return to calendar.

9.2.3 Wednesday, 26 April 2023

Read: Chapter 4: "Functional Excel" of *React Up & Running*.

Return to calendar.

9.2.4 Thursday, 27 April 2023

Read: Chapter 4: "Functional Excel" of *React Up & Running*.

Return to calendar.

9.2.5 Friday, 28 April 2023

Write: Graded exercise 1.

Return to calendar.

9.3 Week 2

9.3.1 Monday, 01 May 2023

Read: Chapter 5: "JSX" of *React Up & Running*.

Return to calendar.

9.3.2 Tuesday, 02 May 2023

Read: Chapter 5: "JSX" of *React Up & Running*.

Return to calendar.

9.3.3 Wednesday, 03 May 2023

Read: Chapter 6: "Setting Up for App Development" of *React Up & Running*.

Return to calendar.

9.3.4 Thursday, 04 May 2023

Read: Chapter 7: "Building the App's Components" of *React Up & Running*.

Return to calendar.

9.3.5 Friday, 05 May 2023

Write: Graded exercise 2.

Return to calendar.

9.4 Week 3

9.4.1 Monday, 08 May 2023

Read: Chapter 8: "The Finished App" of *React Up & Running*.

Return to calendar.

9.4.2 Tuesday, 09 May 2023

Discuss: Review course. Ask: what might we want to learn next?

Return to calendar.

9.4.3 Wednesday, 10 May 2023

Write: Graded exercise 3.

Return to calendar.

9.4.4 Thursday, 11 May 2023

Block Break We will not meet today.

There is no work due today.

Return to calendar.

9.4.5 Friday, 12 May 2023

Block Break We will not meet today.

There is no work due today.

Return to calendar.