

1.1 Welcome to CSSE280 Fall 2020

Prerequisite

The formal prerequisite is: CSSE 220 – Object-Oriented Software Development or CSSE 221.

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The main things you should bring to this course include:

- Above all, a willingness to learn on your own. Much of the learning will happen when you explore this textbook, the follow alongs, homeworks, and the project. However, there is an expectation that you will learn how to use official reference websites like [MDN](#).
- Enthusiasm, curiosity, perseverance, and a "can do" attitude.
- Willingness to work cooperatively with other students (in and out of the classroom) to enhance the learning environment.
- Willingness to consistently devote enough time to the course.
- Willingness to quickly learn the basics of several languages and tools.
- Commitment to keep up with the course and to ask questions when you do not understand something.
- A strong comfort level with variables, assignment, if, while and for loops, writing and calling methods, formal and actual parameters, pass by value, creating objects and classes.

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1.1.1: Course expectations



Complete the exercise below

1) In this course I will



- not need to interact with one else unless I want to
- not need to learn anything on my own
- be expected to learn new tools and languages

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How was this section?



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1.2 Course Description and Learning Objectives

Course Description

This course will introduce principles of and some tools for Web programming.

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Introduction to the client-side and server-side mechanisms for creating dynamic web applications with persistent data storage. Browser-server interaction via HTTP. Static web page creation using current markup and styling languages. Client-side programming with modern scripting languages and the DOM. Server-side programming with emerging web programming languages and frameworks.

Persistent data storage with a state-of-the-art database management system. Asynchronous client-server communication via HTTP requests. Development and consumption of REST APIs. Deployment of web applications to cloud platforms or platform as a service providers. Security considerations. This course provides breadth of knowledge of many tools/technologies rather than deep knowledge of any particular tool/technology. No previous experience with Web development is required.

Learning objectives

1. Use the modern Web standards model (e.g., HTML, CSS, and JavaScript) to structure, present, and add behavior to a Web document.
2. Use a client-side Web development framework or library to build an interactive front-end Web application.
3. Create a back-end Web server application from the ground up using a modern runtime environment and an iterative development process.
4. Connect a back-end Web server application to a data back-end; write back-end code to create, read, update, and delete data from the data back-end.
5. Develop a REST API in a back-end Web server application that returns resources, e.g., in JSON format.
6. Include asynchronous connections in a front-end Web application to consume a REST API exposed by a Web server application.
7. Use best practice JavaScript patterns including: callbacks, closures, promises, modular design, asynchronous operations, in developing Web applications.
8. Deploy a Web application to a cloud platform.
9. Discuss risks to web application stability, security, and compatibility, relating modern approaches to minimize those risks.
10. Design a user experience using a modern Mocking tool (e.g. Figma)

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1.2.1: background

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- 1) I should not be taking this course unless I have already done web programming

True



False

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1.3 Class Meetings, Contact Info, Outside Help Class

All three sections will be using the following format:

Mon - 2 hour, synchronous meetings

Tues, Thurs - 1 hour, synchronous meetings (**sections will be divided into subsections by instructors**)

Section 01 (Yoder): 2nd-3rd periods (9:00-10:50AM)

Mon on MS Teams, Tues in O267, and Thurs in O269

Section 02 (Yoder): 4th-5th periods (11:00-12:50PM)

Mon on MS Teams, Tues in O267, and Thurs in O269

Section 03 (Marcum): 6th-7th periods (1:00-2:50PM)

ALL classes held online via MS Teams

The subsections mean that you will have a smaller class discussion and more time outside of synchronous class to get work done.

Probably easier understood in tabular format:

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	Monday	Tuesday	Thursday
9-9:50AM	Section 1A & 1B	Section 1A ONLY	Section 1A ONLY
10-10:50AM	Section 1A & 1B	Section 1B ONLY	Section 1B ONLY
11-11:50AM	Section 2A & 2B	Section 2A ONLY	Section 2A ONLY
12-12:50PM	Section 2A & 2B	Section 2B ONLY	Section 2B ONLY

1-1:50PM	Section 3A & 3B	Section 3A ONLY	Section 3A ONLY
2-2:50PM	Section 3A & 3B	Section 3B ONLY	Section 3B ONLY

Figure 1.3.1: Dr. Jason Yoder – Assistant Professor of Computer Science and Software Engineering

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Email: yoder1@rose-hulman.edu

Office phone: x8347

Office address: D113

Office hours: I will not hold specific hours, but you can [schedule a time using this link](#) which is synchronized with my Google calendar. IF there is NOT a good time available for you using the scheduling link, then please message me on MS Teams. I can try to arrange a meeting even if after the regular workday (5pm).

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Figure 1.3.2: Professor Eliza Marcum - Visiting Assistant Professor of Computer Science and Software Engineering



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Email: brocker@rose-hulman.edu

Office phone: ☎

Office address: The Internet

Office hours: I will be having regular office hours via. the "Live Office Hours" channel in our team on most Wednesdays from 1:00 to 2:50 Eastern Time. You can also schedule 1:1 (or small group!) meetings with me via this [calendly link](#).

Note: IF there is NOT a good time available for you using the scheduling link, then please message me on MS Teams to arrange an alternate time. This may be particularly relevant for students that are stuck in other time zones, so please reach out if that is the case!

MS Teams

Teams will be our primary platform for questions and answers. You are expected to participate by both asking and answering questions. Questions should be placed on appropriate channels (i.e. "FA 01 HelloWorld" so that other students, TAs, and instructors can both see your questions and provide answers. Although as instructors we will try to answer these as best we can, the speed of replying will be enhanced if we use these more specific channels for communication. You should automatically be added to this "MS Team," but if not, then please email your instructor:

[CSSE280 Fall 2020 - Intro to Web Programming](#)

CSSE280 TAs

There are a number of TAs specifically assigned to CSSE280, they will hold office hours on MS Teams and will try to answer questions there as well. The hours for the CSSE280 TAs will be shared on Moodle.

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CSSE General Help Channels

There are often general TAs available to help students across a number of classes (held virtually on MS Teams, or physically in the CSSE computer labs). The hours for the general TAs will be shared on Moodle.

Other Sources of Help

Besides the instructors and assistants, other students in the course can often be a great source of help. They will learn more if they explain things to you. Some students at Rose-Hulman have done significant web development. If one of them is your friend, why not ask her/him for help every now and then? Just be sure to not let someone else do your work for you.

Don't try to be the Lone Ranger in this course, especially if you do not find the course easy. If you find that you have worked on something for 30 minutes without making any progress, it's probably time to seek help! Software development is a team sport. The best programmers know that a fresh set of eyes can often spot a problem right away.

Private Questions

Occasionally, you may have questions that include information you do not want to share with other students or TAs.

For instructor only communication:

You can either message them directly on MS Teams or you can email them, but when emailing your instructor be sure to give a good subject line including CSSE280 and a general topic:

CSSE280: Question about personal attendance policy

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For communication with all instructors and TAs:

There is an option to start a conversation with all the instructors and TAs (and not other students).

First go to Manage Team on the CSSE280 Team, like so:

Figure 1.3.3: manage team

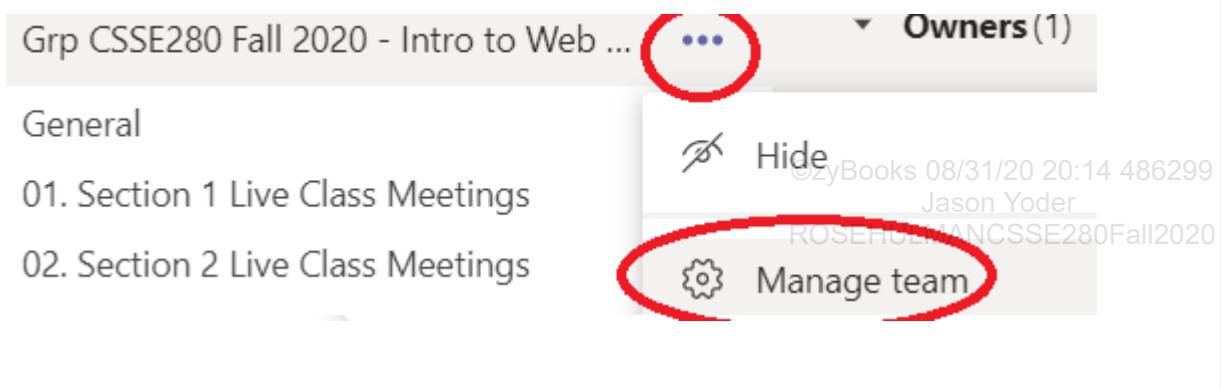


Figure 1.3.4: Members of Team Channel

A screenshot of the "Members" tab. It includes a search bar and tabs for "Members", "Pending Requests", "Channels", "Settings", "Analytics", and "Apps". Under the "Members" tab, there is a section titled "Owners (8)". Each owner entry includes a profile picture, name, title, location, and a "Tags" column with a blue oval around the "TAsAndInstruct..." tag. The "TAsAndInstruct..." tag is also highlighted with a blue oval.

Name	Title	Location	Tags
Marcum, Eliza	Internal Support		TAsAndInstruct... +1
Yoder, Jason	Assistant Professor of Computer ...	Olin 224	TAsAndInstruct...

Figure 1.3.5: Click the members list for the TAsAndInstructors tag

A screenshot of a tag group titled "TAsAndInstructors". It shows a "Tag group" icon and the "TAsAndInstructors" tag. A red oval highlights the "Members" link, which is also highlighted with a blue oval.

Figure 1.3.6: From here you can start a chat to get private help from
anyone available

anyone available

Manage tag

You can notify a group of people all at once by @mentioning tags.

Tag name: TAsAndInstructors

Add people:

Type a name: Add

8 people

Chat with group

This will start a **persistent chat** with the TAs and Instructors, so if you do this once, then you can message it again in the future without having to go through this sequence of steps.

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1.3.1: Questions?



Questions about something course related?

- 1) If I have a question that other students might have as well I should:



- Email my instructor
- Email my favorite TA
- Ask my friend
- Post a question on an appropriate MS Team channel (or general if you are unsure)

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- 2) If I have a question that includes partial answers to an individual assignment then I MUST email my instructor only to ask it.



True False

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1.4 Resources

Moodle:

Course materials will be linked from Moodle (shared across all sections):

[Course: CSSE280 ALL SECTIONS Fall Quarter - 2020-21](#)

Course Schedule Page:

A summary view of the schedule and the course will be shown on this website:

<https://rhit-csse280.github.io/>

Required text:

zyBooks - CSSE 280: Introduction to Web Programming

If you are NOT reading this from within the website already (reading from PDF), please be sure to actually get the ZyBook:

1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code: ROSEHULMANCSSE280Fall2020
3. Subscribe

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Optional, Supplemental Text:

HTML & CSS: design and build websites, by Jon Duckett

Paperback: 490 pages

Publisher: John Wiley & Sons; 1st edition (November 8, 2011)

Language: English

ISBN-10: 1118008189

ISBN-13: 978-1118008188

Links:

- [Availability](#)
- [HTML & CSS book website](#)

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- This optional book is well written and contains many useful examples. This might be useful for those that have no prior experience in HTML/CSS OR that prefer having hardcopies for references.

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Codecademy

Codecademy.com provides interactive courses on a variety of languages/technologies that are relevant to this course, including

- HTML & CSS
- JavaScript
- Make a Website
- Make an Interactive Website

You may work on any of the free courses that you choose, depending on what background knowledge you already have. This should give you more practice with building web applications.

MDN

The MDN website is provides excellent tutorials and official documentation for most of the web technologies we will use in this course. As much as possible you should trying to use official references like this as opposed to simply using website like stackoverflow.com which sometimes provide a quick fix, but might be misleading or provide inaccurate/incomplete explanations.

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1.4.1: schedule



- 1) Where should you go to see the current schedule including the assignments I should be working on?



- Moodle
- The course Piazza page
- <https://rhit-csse280.github.io/>
- The MS Teams schedule channel

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How was this section?  

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1.5 Course Structure and Grading

This is a *rough* breakdown of the planned grading weights for the course. It is subjective to change as the quarter progresses and adjustments are made.

Grading Weight Criteria

- 5% Participation in class discussions and online channels
- 10% Follow alongs and associated quizzes
- 10% ZyBooks Readings and Exercises
- 20% Homework (~4 assignments)
- 25% Team Project
- 30% Exams (during weeks 4, 7, and final exam slot)

If your Exam average is significantly below your homework average, we reserve the right to lower your course grade, since the exams are our main way to measure what you can do on your own.

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Attendance, Participation, and COVID19:

- The success (or failure) of Rose-Hulman's coronavirus-containment measures depends on each one of us.
- Be vigilant and closely monitor your health; be honest about any worrying symptoms.

- Even if you or others will be inconvenienced, even if you worry about what you'll miss in class, stay home and contact your professors via email if you have any symptoms.
- It is more important than ever to start assignments early; don't allow yourself to fall behind.
- Shift your focus from merely attending face-to-face classes to meeting course objectives; find ways of participating in courses and showing that you are engaged even if you are staying home to avoid exposing others.
- Be creative; find new ways to learn and engage in campus life during this unusual time.
- Let go of perfectionist expectations of yourself and others; be open-minded about course delivery, virtual office hours, remote gatherings with classmates,©zyBooks 08/31/20 20:14 486299 Jason Yoder etc!LMANCSSE280Fall2020

Participation in class discussions and online channels

Class discussions

We are intentionally using time in synchronous class sessions to focus on small, interactive groups activities. We expect regular and consistent participation (which includes both asking questions and volunteering answers) in these synchronous sessions. Similarly, for the asynchronous aspects of the course, we expect you to both post questions and answers on appropriate MS Teams channels to help others as well as yourself. If you cannot attend class physically, let your instructor know ahead of time. We can work together to find creative solutions to maintain a cohesive and engaging class experience.

Online Communication

MS Teams will be the main online communication medium for this class. You should plan to check the CSSE280 Teams group daily. If you have questions or want to discuss something, Teams is the place to do so. When I make course announcements between class meetings, I will usually post them on a channel within Teams. If someone else posts a question and you know the answer, do not be shy about answering! There are lots of small things that hang people up in web programming; a quick answer from a fellow-student can make a big difference.

Follow Alongs

As preparation for many classes you will be expected to watch short videos and "follow along" in order to build small-to-medium web applications. Many of these will also provide short quizzes to help ensure you didn't miss important details. In addition to quizzes, you will also be expected to provide the finished version (via Moodle/deployment) of these applications as deliverables. The solutions are entirely given to you, but explained as they are developed so that you can practice proper strategies for development. It is important that you keep up with the course material as we go along. You should do coding along with the videos for maximum benefit; these should make the homeworks easier. If you have questions about follow alongs, be sure to post questions in the appropriate MS Teams channels.

Homework

To help to assess that you have generalized these skills and concepts, you will also be asked to complete other homework assignments, which are similar to the follow alongs, but without the help. If you have questions about homework, be sure to post questions in the appropriate MS Teams channels.

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Exams

There will be three exams during weeks 4, 7, and finals week. Each exam will have one or both of the following parts.

- 1) Open book, but not open computer (except perhaps for the use of Moodle to administer it).
- 2) Questions that ask you to write and/or enhance code to achieve a particular result. You will be allowed to use internet resources, but of course, no human resources.

Late Assignment Policy

All graded assignments must be turned in before the due time (always 11:59PM the day they are listed unless explicitly stated otherwise) if you want credit for them. We will strive to leave enough time so that if you start on the day we give an assignment, you should have little trouble finishing it before the due time. *If you have trouble completing an assignment on time, please email your instructor.*

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1.5.1: Policy questions



- 1) Attendance for class is



- only required for physical face-to-face (f2f) meetings
- mandatory and you could fail the course if you are absent
- expected for both online and face-to-face (f2f) meetings as long as you are healthy
- not graded in anyway

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- 2) If an assignment is listed at due on
9-6 when is due EXACTLY?

- 9/6/2020 at 11:59PM
- 9/7/2020 at 11:59PM
- 9/6/2020 at 12:01AM
- 9/7/2020 at 12:01AM

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- 3) Most online communication in this
course will occur via

- Email
- Group text messages
- Campuswire
- MS Teams

How was this section?

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1.6 Academic Integrity

Academic Integrity

Recall the Institute's General Policy on academic misconduct:

Rose-Hulman expects its students to be responsible adults and to behave at all times with honor and integrity.

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The simple rule to follow for individual assignments is:

- Never give anyone your code or use someone else's code.

Such exchanges are definitely cheating and not cooperation. The CSSE department statement on academic honesty has more detailed advice.

For reference:

- Individual Assignments Include: ZyBooks exercises, follow alongs, homeworks, and exams.
- Team Assignments Include: Team project, Class Discussions, and the MS Teams Q & As

We encourage you to discuss the problems and general approaches to solving them with other students, and to get help with debugging. However, when it comes to writing code, it should be your own work (or the work of your group if it is a group assignment). If you are having trouble understanding how some library code works or pinning down a run-time or logic error in your program, by all means talk to someone about it. Get help with debugging when you need it.

If you use someone else's ideas in your solution, you must:

- give credit to that person in the comments of your code, and
- be sure that you understand it as well as if it were your own.

If you are ever in doubt about whether some specific situation violates the policy, the best approach is to discuss it with your instructor beforehand. This is a very serious matter that we do not take lightly. Nor should you.

For graded assignments, you should not look at another student's code to get ideas of how to write your own code. Beginning the process of producing your own solution with an electronic copy of work done by other students is never appropriate.

Plagiarism or cheating (e.g., turning in code from exam after the due time) will result in a negative score (i.e., less than zero) for the assignment or exam. Egregious cases will result in a grade of "F" for the course. More importantly, such dishonesty steals your own self-esteem and your opportunity to learn. So, don't cheat!

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1.6.1: academic integrity



- 1) It is only cheating if I copy from someone else. If I share my code with someone else, they might choose to cheat, but that is not my fault.

True

False

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1.7 Professional Behavior and Diversity Statements

Professional Behavior

Students are expected to behave professionally. A lack of professional behavior in a student's interactions within a team, with an instructor, teaching assistants or during in-class activities can result in a penalty grade. Depending on the nature and the egregiousness of the behavior, the penalty grade might be a reduction in letter grade or an F in the class.

Diversity Statement

Along with the expectation of professional behavior, we recognize that Rose-Hulman is part of a mutually dependent, multicultural community. As an institution devoted to excellence in education, we acknowledge our responsibility to teach students the skills they need to excel in their chosen field, including the ability to interact with people of diverse backgrounds and viewpoints. We want to see students become global leaders. To achieve this goal, we will strive to:

- Promote diversity in all aspects of our course;
- Encourage every individual to respect the inherent dignity of others;
- Strive to broaden understanding of each individual's unique contribution to our class;
- Challenge stereotypes to build a broader and more inclusive world view.

Concerns

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If you have any concerns about any course matters, you should tell someone. You can email [ROSEHULMANCSSE280Fall2020](#), your instructor, speak to your instructor, or **leave anonymous feedback in Moodle**. You can also contact the **department head**, **Student Affairs**, or another Rose employee you feel comfortable with.

While you are more than welcome to consult any member of our department if you have concerns, we realize it's helpful to have a few names to start with. If you have a concern and are

not sure where to go, the following CSSE faculty have volunteered to be help out with any concerns you may have: Amanda Stouder (F222) and Kim Tracy (D216).

**PARTICIPATION
ACTIVITY****1.7.1: Channel for Concerns**

- 1) If I have a concern about the course and I don't want to talk to my instructor directly, I can

- use the anonymous feedback in Moodle
- contact the department head
- contact student affairs
- Rose employee you feel comfortable with
- All of the above

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