Syllabi Documentation

Release Spring 2022

Paul Vincent Craven

May 21, 2022

Contents

1 CIS 390AG - Advanced Gaming 3

2 CMSC 390IA - Information Security 9

3 CIS 386 Capstone 19

4 CIS 385 Capstone 25

5 CIS 120 Introduction to Web Development 31

6 CMSC 150 Introduction to Programming 41

7 CIS 160: Intro to the Creation of 3-D Movies and Graphics 51

8 Discord How-To 59

9 How to Ask a Technical Question 65

10 SC 101 Joss Whedon Productions 71

11 CMSC 386 Capstone 79

12 CMSC 385 Capstone 85

13 CIS 320 Advanced Web Development and Security 91

14 CMSC 340 Computer Networking 99

Spring 2022 Classes

CHAPTER 1

CIS 390AG - Advanced Gaming

1.1 Course Details

- Course title: **CIS 390AG Advanced Game Design**
- Catalog course description:

  Students in Advanced Game Design work in teams to create their own game using the Unity Game Engine. Students will work with C#, JavaScript, 3-D modeling, version control, physics engines, and manage the development schedule with project management skills.
- Course level student learning objectives (SLOs):
  - Improve/learn C# coding skills
  - Improve/learn 3D modeling skills
  - Learn to work with Unity, a current, professional game engine
  - Work in a Agile team environment using standard project management and code management skills
- Textbook: There is no textbook for the class. We will be utilizing many on-line resources for Unity and Blender.

1.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting

        * https://calendly.com/paul-craven/zoom-30-minute-meeting
    - In McNeill 110 (Make sure lab is open)
        * https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
    - E-mail: paul.craven@simpson.edu <- Best way to contact me.
        * When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
    - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
    - Phone: 515-961-1834 <- I rarely answer this.

1.3 Schedule

Class meets Tuesday/Thursday from 9:40 am until 11:10 pm.

Our final time is Wed, April 27 from 8:00 am until 10:00 am.

1.3.1 Academic Calendar

Spring Semester 2022	Date
Classes Begin	Jan-10
Last Day to Add/Drop	Jan-14
MLK - No Class	Jan 17
Mid-Term Date	Feb-25
Mid-Term Grades Due	Mar-02
Spring Break	Mar-12-20
Last Day to Withdraw	Mar-24
Campus Day - No class	Apr-06
Easter Recess	Apr-18
Honors Convocation Ceremony	Apr-20
Research Symposium (No Class)	Apr-21
Last Day of Class	Apr-22
College Reading Day	Apr-25
Spring Final Exam Week	Apr 26-29
Commencement	Apr-30
All Spring Grades Due	May-03

The first 1/3 to 1/2 of the class will be on building skills. The last half will be working in one or more teams on a cooperative project using the Agile methodology.

Assignments will likely be:

1. C# Camel
2. Simple Blender Modeling
3. Unity 3D Assignment - Part 1
4. Unity 3D Assignment - Part 2
5. Unity 3D Game (Group Project) - Part 1

6. Unity 3D Game (Group Project) - Part 2
7. Unity 3D Game (Group Project) - Part 3
8. How to create 2D art
9. Unity 2D Assignment - Part 1
10. Unity 2D Assignment - Part 2
11. Unity 2D Game (Group Project) - Part 1
12. Unity 2D Game (Group Project) - Part 2
13. Unity 2D Game (Group Project) - Part 3

1.4 Student Assessment

1.4.1 Assignment Submission

Assignments must be submitted on-line via Simpson's Scholar website.

Assignments are not accepted via e-mail.

1.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

1.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

1.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

1.4.5 Attendance/Participation Policy

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 3% for each class missed, not including the original three. So missing five classes will be a 6% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. Showing up to class 10 minutes late does not count towards attendance. Therefore continually showing up to class late can really hurt a student's grade. If a student leaving class early with prior permission will be counted as absent.

COVID-19: Absences due to Covid-19 are excused, but you need to let me know, along with health services.

1.4.6 Assignments

We will work through part of the course with approximately half of the assignments being written, and half technical. Most assignments will come form the Unity curriculum. Next, there will be a final capstone project.

1.5 Course Assessment

1.5.1 Student Learning Outcomes for the Major

CIS Major SLO #1: Apply and manage computer systems to meet business objectives.

CIS Major SLO #2: Create and manage computer systems utilizing a variety of information technologies.

1.5.2 Contact Hours and Learning Time

CMSC 390AG meets three times per week. Class covers 14 weeks, with one week of break, and one day off for Honor Symposium giving us a total of 39 classes. At 60 minutes per class, that's 39 hours of meeting time.

There will be approximately 3 hours of Unity tutorial videos assigned per week. Because of pausing/rewinding this should take about 6 hours per week for a total of 78 hours.

Total time outside of class spent on projects, including the final capstone project, should be about 33 hours.

Total time spent on the class should be about 140 hours, or about 10 hours per week.

1.6 Policies and Procedures

1.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

1.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

1.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

1.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

1.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

CHAPTER 2

CMSC 390IA - Information Security

2.1 Course Details

- Course title: **CMSC 390IA Information Assurance**
- Catalog course description:

  Information assurance is the practice of managing information-related risks. More specifically, students in this class will learn to protect and defend information and information systems by ensuring confidentiality, integrity, authentication, availability, and non-repudiation of data.
- Course level student learning objectives (SLOs):
  - Understand the need, terminology, and drivers behind information security
  - Access control
  - Security operations and administration
  - Auditing, testing and monitoring
  - Planning a response and recovery
  - Cryptography
  - Networking
  - Malicious code
  - Government policy
  - Hands-on labs with popular security tools
- Textbook: Fundamentals of Information Security - 3rd Edition

2.2 Instructor

- Instructor Name: Paul Vincent Craven

- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

2.3 Schedule

Class meets Monday/Wednesday/Friday from 2:10 pm until 3:10 pm.

Our final time is Thurs., April 28, 3:15pm - 5:15pm.

2.3.1 Academic Calendar

Spring Semester 2022	Date
Classes Begin	Jan-10
Last Day to Add/Drop	Jan-14
MLK - No Class	Jan 17
Mid-Term Date	Feb-25
Mid-Term Grades Due	Mar-02
Spring Break	Mar-12-20
Last Day to Withdraw	Mar-24
Campus Day - No class	Apr-06
Easter Recess	Apr-18
Honors Convocation Ceremony	Apr-20
Research Symposium (No Class)	Apr-21
Last Day of Class	Apr-22
College Reading Day	Apr-25
Spring Final Exam Week	Apr 26-29
Commencement	Apr-30
All Spring Grades Due	May-03

Each lesson takes about one week. As we have fourteen weeks, I think we'll not get to everything.

Lesson 1: Information Systems Security

Required Readings	Chapter 1: Information Systems Security
Discussion	Examining IT Security Policies
Lab	Exploring the Seven Domains of a Typical IT Infrastructure

Lesson 2: Emerging Technologies Are Changing How We Live

Required Readings	Chapter 2: Emerging Technologies Are Changing How We Live
Discussion	Examining the Security of Internet of Things (IoT) Devices

Lesson 3: Risks, Threats, And Vulnerabilities

Required Readings	Chapter 3: Risks, Threats, And Vulnerabilities
Discussion	Examining Threats and Vulnerabilities to an IT Infrastructure
Lab	Performing a Vulnerability Assessment

Lesson 4: Business Drivers of Information Security

Required Readings	Chapter 4: Business Drivers of Information Security
Discussion	Confidentiality and Compliance Laws

Lesson 5: Networks and Telecommunications

Required Readings	Chapter 5: Networks and Telecommunications
Discussion	Understanding the Open Systems Interconnection (OSI) Model
Lab	Performing Packet Capture and Traffic Analysis

Lesson 6: Access Controls

Required Readings	Chapter 6: Access Controls
Discussion	Applying Security Controls
Lab	Applying User Authentication and Access Controls

Lesson 7: Cryptography

Required Readings	Chapter 7: Cryptography
Discussion	Selecting an Appropriate Encryption Solution
Lab	Using Encryption to Enhance Confidentiality and Integrity

Lesson 8: Malicious Software and Attack Vectors

Required Readings	Chapter 8: Malicious Software and Attack Vectors
Discussion	Supply Chain Attacks
Lab	Assessing Common Attack Vectors

Lesson 9: Security Operations and Administration

Required Readings	Chapter 9: Security Operations and Administration
Discussion	Change Management and Configuration Management
Lab	Implementing an IT Security Policy

Lesson 10: Auditing, Testing, and Monitoring

Required Readings	Chapter 10: Auditing, Testing, and Monitoring
Discussion	Security Monitoring
Lab	Implementing Security Monitoring and Logging

Lesson 11: Contingency Planning

Required Readings	Chapter 11: Contingency Planning
Discussion	Responding to an Incident
Lab	Configurings Backup and Recovery Functions

Lesson 12: Digital Forensics

Required Readings	Chapter 12: Digital Forensics
Discussion	Potential for Evidence Storage on Internet of Things (IoT) Devices
Lab	Performing Incident Response and Forensic Analysis

Lesson 13: Information Security Standards

Required Readings	Chapter 13: Information Security Standards
Discussion	Examining Real-World Implementations of Security Standards

Lesson 14: Information Security Certifications

Required Readings	Chapter 14: Information Security Certifications
Discussion	Choosing an Appropriate Certification

Lesson 15: Compliance Laws

Required Readings	Chapter 15: Compliance Laws
Discussion	Effectiveness of Compliance Laws

2.4 Student Assessment

2.4.1 Assignment Submission

Assignments must be submitted on-line via Simpson's Scholar website.

Assignments are not accepted via e-mail.

2.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

2.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

2.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."

- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

2.4.5 Attendance/Participation Policy

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 3% for each class missed, not including the original three. So missing five classes will be a 6% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. Showing up to class 10 minutes late does not count towards attendance. Therefore continually showing up to class late can really hurt a student's grade. If a student leaving class early with prior permission will be counted as absent.

COVID-19: Absences due to Covid-19 are excused, but you need to let me know, along with health services.

2.4.6 Assignments

We will be following the textbook for assignments.

- For each chapter there will be an on-line quiz worth 50 points. There are 15 chapters, but I think we'll probably only get to 13 or 14 of them.
- For each lab, there will be a lab report worth 100 points. There are 10 labs.
- We may include ad-hoc projects along the way. These will be either 50 or 100 points, depending on the effort.
- The final will be a book report, worth 200 points.

2.5 Course Assessment

CMSC Major SLO #2: Design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.

2.5.1 Contact Hours and Learning Time

CMSC 390IA meets two times per week. Class covers 14 weeks, with one week of break, and one day off for Honor Symposium giving us a total of 25 classes. At 90 minutes per class, that's 37.5 hours of meeting time.

There are a total of 11 chapters to be read, and quizzes to cover them. Each chapter should take approximately two hours to read, and two hours to do the quiz. This totals 44 hours.

There are 10 labs, 10 lab reports, and 10 lab quizzes. Each lab, report, and quiz should take about 6 hours of work. This should total about 60 hours.

Total time spent on the class should be about 140 hours, or about 10 hours per week.

2.6 Policies and Procedures

2.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

2.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

2.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

2.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's

commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

2.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

2.7 Special Covid Additions

Thanks to COVID here are some additional elements:

2.7.1 Wearing Facial Coverings in Classrooms is Required

To help mitigate the transmission of COVID-19, it is required that all students, faculty, and staff wear masks in classrooms, laboratories, and other similar spaces where in-person instruction occurs. This requirement is for all individuals regardless of COVID-19 vaccination status. The masks must cover both nose and mouth and be worn for the duration of class. Consumption of food or drink will not be allowed inside classroom spaces. Mask requirements (both within the classroom and inside campus buildings) will be linked to Simpson College COVID-19 Color Phases and will be evaluated frequently. Please note that Color Phases are heavily influenced by the vaccination rate on campus. You can find more information at COVID-19 Plan. Non-compliance regarding masks may result in students being asked to leave the class, disciplinary action from the academic dean, or failure of the class as outlined in the Student Handbook Standards of Classroom Behavior.

2.7.2 COVID-19 Health-Relates Class Absences

Please evaluate your own health status daily and refrain from attending class if you are ill. Students who miss class due to illness will be given opportunities to access course materials and will not be penalized for not attending class in person. Please work with instructors to either reschedule or electronically/remotely complete exams, labs, and other academic activities as you are able. You are encouraged to seek appropriate medical attention for treatment of illness. In the event of contagious illness, please do not come to class or to campus to turn in work. Notify me by email about your absence as soon as practical so that accommodations can be made. Please note that documentation (a doctor's note) for medical excuses is NOT required.

2.7.3 Additional Contingency Plans

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed remotely.

2.7.4 Recording Policy

Recording: Class meetings may be recorded by the instructor for student use. To respect the class community, there shall be no other audio or video recording of class activities and no sharing or disseminating recordings or images (including screen shots) of class activities without the permission of the instructor and other members of the class.

CHAPTER 3

CIS 386 Capstone

3.1 Course Details

- Course title: CIS Capstone
- Catalog course description: Students must work on either a significant research project, a significant software development project, or a development project as part of an internship. This is a one credit version of 385 for when a student is working on an internship or project in combination with another major that does not require an additional four credits of load. Prerequisite: Completion of at least one 300-level CmSc or CIS course, submission of a proposal, and senior standing. One credit. Offered every semester
- Course level student learning objectives (SLOs):
  - Course SLO #1 apply and manage computer systems to meet business objectives.
  - Course SLO #2 create and manage computer systems utilizing a variety of information technologies.
  - Course SLO #3 design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.
- Textbook: None

3.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting

        * https://calendly.com/paul-craven/zoom-30-minute-meeting
    - In McNeill 110 (Make sure lab is open)
        * https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
    - E-mail: paul.craven@simpson.edu <- Best way to contact me.
        * When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
    - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
    - Phone: 515-961-1834 <- I rarely answer this.

3.3 Schedule

There is no formal meeting time for CIS 386. Class is conducted on-line.

3.3.1 Academic Calendar

Summer Semester 2022	Date
First Day	May-30
Last Day of Class	Aug-14

3.4 Student Assessment

3.4.1 Assignment Submission

Assignments must be submitted on-line via Simpson's Scholar website.

Assignments are not accepted via e-mail.

3.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

> **Danger:** Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

3.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

3.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

3.4.5 Attendance/Participation Policy

3.4.6 Assignments

For consistency, everything is marked due on Monday except the last report, as classes officially end 8/14.

- Monday, May 30, 2022 at 8 am Report 1

- Monday, June 6, 2022 at 8 am Report 2
- Monday, June 13, 2022 at 8 am Report 3
- Monday, June 20, 2022 at 8 am Report 4
- Monday, June 27, 2022 at 8 am Report 5
- Monday, July 4, 2022 at 8 am Report 6
- Monday, July 11, 2022 at 8 am Report 7
- Monday, July 18, 2022 at 8 am Report 8
- Monday, July 25, 2022 at 8 am Report 9
- Monday, August 1, 2022 at 8 am Report 10
- Monday, August 8, 2022 at 8 am Report 11
- Sunday, August 14, 2022 at 8 am Report 12

3.5 Course Assessment

3.5.1 Engaged Citizenship Grids

This course does not have any ECC designations.

3.5.2 Student Learning Outcomes for the Major

CIS Major SLO #1: Apply and manage computer systems to meet business objectives.

CIS Major SLO #2: Create and manage computer systems utilizing a variety of information technologies.

CIS Major SLO #3: Design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.

3.5.3 Contact Hours and Learning Time

When doing a capstone as a 386 class instead of a 385 class, students should be spending 10 or more hours per week with a supervisor performing work related to their degree. Another option is to work with a different professor and do 10 or more hours per week on related research.

The reports should take approximately 30 minutes to write each week. With 14 weeks in the course, the total number of hours involved should be approximately 146 hours.

3.6 Policies and Procedures

3.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

3.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

3.6.3 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

3.6.4 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

3.6.5 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education,

ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

3.6.6 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

CHAPTER 4

CIS 385 Capstone

4.1 Course Details

- Course title: CIS Capstone
- Catalog course description: Students must work on either a significant research project, a significant software development project, or a development project as part of an internship. Prerequisite: Completion of at least one 300-level CmSc or CIS course, submission of a proposal, and senior standing. Four credits. Offered spring semesters.
- Course level student learning objectives (SLOs):
  - Course SLO #1 design, implement, and analyze computational algorithms.
  - Course SLO #2 design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.
  - Course SLO #3 design, implement, and modify normalized database systems. Graduates will also be able to write software that uses a database.
  - Course SLO #4 demonstrate how the features of the hardware system support software organization and performance.
  - Course SLO #5 apply and manage computer systems to meet business objectives.
  - Course SLO #6 create and manage computer systems utilizing a variety of information technologies.
  - Course SLO #7 design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.
- Textbook: None

4.2 Instructor

- Instructor Name: Paul Vincent Craven

- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

4.3 Schedule

There is no formal meeting time for CIS 385. Class is conducted on-line.

4.3.1 Academic Calendar

Summer Semester 2022	Date
First Day	May-30
Last Day of Class	Aug-14

4.4 Student Assessment

4.4.1 Assignment Submission

Assignments must be submitted on-line via Simpson's Scholar website.

Assignments are not accepted via e-mail.

4.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

4.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

4.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

4.4.5 Attendance/Participation Policy

4.4.6 Assignments

For consistency, everything is marked due on Monday except the last report, as classes officially end 8/14.

- Monday, May 30, 2022 at 8 am Report 1
- Monday, June 6, 2022 at 8 am Report 2
- Monday, June 13, 2022 at 8 am Report 3
- Monday, June 20, 2022 at 8 am Report 4
- Monday, June 27, 2022 at 8 am Report 5
- Monday, July 4, 2022 at 8 am Report 6
- Monday, July 11, 2022 at 8 am Report 7
- Monday, July 18, 2022 at 8 am Report 8
- Monday, July 25, 2022 at 8 am Report 9
- Monday, August 1, 2022 at 8 am Report 10
- Monday, August 8, 2022 at 8 am Report 11
- Sunday, August 14, 2022 at 8 am Report 12

4.5 Course Assessment

4.5.1 Engaged Citizenship Grids

This course does not have any EC designations.

4.5.2 Student Learning Outcomes for the Major

CIS Major SLO #1: Apply and manage computer systems to meet business objectives.

CIS Major SLO #2: Create and manage computer systems utilizing a variety of information technologies.

CIS Major SLO #3: Design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.

4.5.3 Contact Hours and Learning Time

- Assignments are designed to take approximately 8-15 hours to complete.
- The last is designed to take approximately 20 hours to complete.
- About one hour is expected to review assignments after they are graded.
- About 140 hours should be spent on this class.

4.6 Policies and Procedures

4.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

4.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

4.6.3 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

4.6.4 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need

something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

4.6.5 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

4.6.6 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

Fall 2021 Classes

CHAPTER 5

CIS 120 Introduction to Web Development

5.1 Course Details

- Course title: CIS 120 Introduction to Web Development
- Catalog course description: This class introduces the technologies behind web development. Students will learn HTML and CSS to target web sites for web, mobile, and print media. Students will learn about usability, color theory, layout, and internationalization. Students will also learn to collaborate with other students by communication in meetings, documents, and by using version control. Students will learn to manage files and deploy websites onto the cloud. COLLABLDR. Four credits. Offered every fall.
- Course level student learning objectives (SLOs):
  - Learn and use Distributed Version Control Systems (DVCS)
  - Use to collaborate with multiple people using DVCS
  - Learn and use HTML
  - Learn and use CSS
  - Learn and use to navigate file systems
  - Learn and use basic command-line for Windows and Linux
  - Learn the theory behind application servers
  - Learn and use single server and cloud hosting for web sites
  - Learn how the Domain Name System (DNS) works
  - How to create high-performance websites
  - Learn and use Content Management Systems (CMS)
  - Learn and use static content generators
- Textbook: https://web-development-class.readthedocs.io/en/latest/semester_1/index.html

5.1.1 Note

There are many different areas of web development. We will be just scratching the surface of the subject. We will cover the main types of technical web development, except for programming. Programming for the web is covered in the second semester.

Note: Most people find this class starts out hard and gets easier.

We will cover:

- Version Control (hard)
- Server/Cloud Setup (hard)
- HTML (medium)
- CSS (medium)
- Content Management Systems (easier)
- Static Content Generators (easy)

Just like a survey course in Sports, History, or Religion, you may find there are parts of this that you like and wish we covered more, and others less. Imagine you got to teach a course labeled "Sports" in college. What sports would you cover? And in how much depth? What sports would you have students try out?

5.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

5.3 Schedule

Class meets Tuesday and Thursday from 9:40 am until 11:10 am.

Final is Tues., Dec. 14, 2021, 8:00am - 10:00am

5.3.1 Academic Calendar

Fall Semester 2021	Date
Classes Begin	Aug-31
Convocation	Sep-01
Last Day to Add/Drop	Sep-06
Labor Day: Regular class day	Sep-06
Fall Break	Oct 14-15
Midterm	Oct-19
Homecoming	Oct-23
Last Day to Withdraw	Nov-08
Thanksgiving Break	Nov 24-26
Last day of class	Dec-09
College Reading Day	Dec-10
Final Exam Week	Dec 13-16

For a day-by-dayfull schedule, see: https://web-development-class.readthedocs.io/en/latest/semester_1/schedule.html

5.4 Student Assessment

5.4.1 Assignment Submission

- Assignments must be submitted on-line via Simpson's Scholar website.
- Assignments are not accepted via e-mail.
- Source code will be checked into GitHub.
  - This will require a free account on GitHub.
- A live web server must be maintained using Amazon Web Services.
  - This will require an AWS account linked to a credit card. AWS offers one year of very basic level service free. If you are past that year there will be a nominal charge.
  - Make sure you shut down your servers at the end of class so you don't keep getting charged.
  - See the instructor if you are not able set up your own server.

5.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

5.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

5.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

5.4.5 Attendance/Participation Policy

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 3% for each class missed, not including the original three. So missing five classes will be a 6% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. Showing up to class 10 minutes late does not count towards attendance. Therefore continually showing up to class late can really hurt a student's grade. If a student leaving class early with prior permission will be counted as absent.

COVID-19: Absences due to Covid-19 are excused, but you need to let me know, along with health services.

5.4.6 Assignments

Assignments are usually worth 100 points, and quizzes worth 50 points. The assignments and quizzes will be:

- Assignment 1 - Basic HTML
- Assignment 2 - DVCS
- Assignment 3 - CSS
- Assignment 4 - Bootstrap
- Assignment 5 - Project Finalization
- Assignment 6 - AWS assignment
- Assignment 7 - Using PHP "include" (We might skip this assignment)
- Assignment 8 - DNS and Web Site Performance
- Assignment 9 - WordPress Install
- Assignment 10 - WordPress
- Assignment 11 - Static Content Generators
- Assignment 12 - Collaborative Leadership Reflection
- Quiz 1 - HTML
- Quiz 2 - DVCS
- Quiz 3 - CSS
- Quiz 4 - Command Line
- Quiz 5 - Amazon Web Services
- Quiz 6 - DNS and Cloud Hosting Quiz

Due dates will be listed out on the class website.

5.5 Course Assessment

5.5.1 Engaged Citizenship

5.5.2 Collaborative Leadership (CL)

The Collaborative Leadership component increases students' confidence in working in groups for a shared goal and helps students develop skills and dispositions like team building, delegation, conflict resolution, and effective communication. This skill is essential in a world where problems are complex and interdependent, and where teamwork is often required to unite diverse groups behind a shared goal.

Through completion of a CL course, students should be able to articulate the skills and dispositions necessary to achieve a shared goal apply the skills and dispositions necessary for effective collaboration explain how their strengths and weaknesses in collaboration affect the outcome of a collaborative leadership process.

A student who completes a CL course will be able to...

Student Learning Objective (SLO)		Class activities directly relating to this SLO	Student work to be evaluated for this SLO
CL SLO1. Articulate	articulate the skills and dispositions necessary to achieve a shared goal	Lecture, quizzes, labs	Reflection
CL SLO2. Apply	apply the skills and dispositions necessary for effective collaboration	Lecture, quizzes, labs	Assignment 5 - Finalize Lab
CL SLO3. Explain	explain how their strengths and weaknesses in collaboration affect the outcome of a collaborative leadership process	Lecture, quizzes, labs	Reflection

5.5.3 Student Learning Outcomes for the Major

CIS Major SLO #1: Apply and manage computer systems to meet business objectives.

CIS Major SLO #2: Create and manage computer systems utilizing a variety of information technologies.

5.5.4 Contact Hours and Learning Time

CIS 120 meets two times per week. Class covers 14 weeks, with two days off due to break, giving a total of 25 classes. At 90 minutes per class, that's 37.5 hours of meeting time.

There are a total of 12 assignments. Each assignment should take approximately eight hours of work. This will add up to about 96 hours of work.

Total time spent on the class should be about 134 hours.

5.6 Policies and Procedures

5.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

5.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

5.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

5.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's

commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

5.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

5.7 Special Covid Additions

Thanks to COVID here are some additional elements:

5.7.1 Wearing Facial Coverings in Classrooms is Required

To help mitigate the transmission of COVID-19, it is required that all students, faculty, and staff wear masks in classrooms, laboratories, and other similar spaces where in-person instruction occurs. This requirement is for all individuals regardless of COVID-19 vaccination status. The masks must cover both nose and mouth and be worn for the duration of class. Consumption of food or drink will not be allowed inside classroom spaces. Mask requirements (both within the classroom and inside campus buildings) will be linked to Simpson College COVID-19 Color Phases and will be evaluated frequently. Please note that Color Phases are heavily influenced by the vaccination rate on campus. You can find more information at COVID-19 Plan. Non-compliance regarding masks may result in students being asked to leave the class, disciplinary action from the academic dean, or failure of the class as outlined in the Student Handbook Standards of Classroom Behavior.

5.7.2 COVID-19 Health-Relates Class Absences

Please evaluate your own health status daily and refrain from attending class if you are ill. Students who miss class due to illness will be given opportunities to access course materials and will not be penalized for not attending class in person. Please work with instructors to either reschedule or electronically/remotely complete exams, labs, and other academic activities as you are able. You are encouraged to seek appropriate medical attention for treatment of illness. In the event of contagious illness, please do not come to class or to campus to turn in work. Notify me by email about your absence as soon as practical so that accommodations can be made. Please note that documentation (a doctor's note) for medical excuses is NOT required.

5.7.3 Additional Contingency Plans

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed remotely.

5.7.4 Recording Policy

Recording: Class meetings may be recorded by the instructor for student use. To respect the class community, there shall be no other audio or video recording of class activities and no sharing or disseminating recordings or images (including screen shots) of class activities without the permission of the instructor and other members of the class.

CHAPTER 6

CMSC 150 Introduction to Programming

6.1 Course Details

- Course title: CMSC 150 Introduction to Programming
- Catalog course description: This course introduces computer programming, emphasizing algorithm design and implementation using conditionals, loops, functions, recursion, and object oriented programming. The course is taught in Python. Prerequisite: One of the following: Math 105/105T Quantitative Reasoning, Math ACT of 22 or higher, or Math SAT of 530 or higher. QUANT. Four credits. Offered every semester.
- Course level student learning objectives (SLOs):
  - Variables and expressions
  - Branching logic
  - Simple looping
  - Complex nested looping
  - Graphical coordinate system
  - Simple version control system use
  - Basic theory behind how computer languages work
  - Linear and binary search
  - Arrays
  - Two-dimensional arrays
  - Exceptions
  - Print formatting
  - Classes
  - Insertion and selection sort
  - Proper coding style and techniques

  - Debugging techniques
  - Using and creating libraries
- Textbook: https://learn.arcade.academy

6.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    * https://calendly.com/paul-craven/in-person-15-minute-meeting
    * https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    * https://calendly.com/paul-craven/zoom-15-minute-meeting
    * https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    * https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    * When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

6.3 Schedule

Class meets MWF from 11:30 am until 12:30 pm and it also has a lab Thursday 2:10 pm until 3:40 pm.

Final is Mon., Dec. 13, 1:00pm - 3:00pm

6.3.1 Academic Calendar

Fall Semester 2021	Date
Classes Begin	Aug-31
Convocation	Sep-01
Last Day to Add/Drop	Sep-06
Labor Day: Regular class day	Sep-06
Fall Break	Oct 14-15
Midterm	Oct-19
Homecoming	Oct-23
Last Day to Withdraw	Nov-08
Thanksgiving Break	Nov 24-26
Last day of class	Dec-09
College Reading Day	Dec-10
Final Exam Week	Dec 13-16

6.3.2 Class Calendar

Date	Class Activity	Due
Wed 9/1	Syllabus	
	Chapter 1, Why learn programming?	
	Chapter 2, Understanding and setting up your system	
Thu 9/2	Chapter 3, Version control systems	Have PyCharm, Python, and Git installed
	Chapter 4, The print function	
	Lab 1 - Print statements and version control systems	
Fri 9/3	On-line coding problems. Finish lab 1, work with any resubmits.	
Mon 9/6	Chapter 5, Drawing with Python	
Wed 9/8	Review Chapter 5, show API docs	Quiz 1 @ 8 am
	Chapter 6 what is a programming language	
	Introduce Lab 2	
Thu 9/9	Lab 2 - Drawing	Lab 1 @ 2:40 pm
Fri 9/10	Chapter 7, Variables and Expressions	
Mon 9/13	Chapter 8, Functions	
Wed 9/15	Chapter 9, Drawing with Functions / If statements	Quiz 2 @ 8 am
Thu 9/16	Lab 3 - Drawing with Functions	Lab 2 @ 2:40 pm
Fri 9/17	Chapter 10, If statements	
Mon 9/20	Chapter 11, For Loops	
Wed 9/22	Chapter 12, While loops and Chapter 13, Random numbers	Quiz 3 @ 8 am
Thu 9/23	Lab 4 - Camel game	Lab 3 @ 2:40 pm
Fri 9/24	In-class work on function problems, in-class work on 'if' statement problems	
Mon 9/27	Looping problems	
Wed 9/29	Chapter 14, Advanced looping problems	Quiz 4 @ 8 am
Thu 9/30	Lab 5 - Loopy lab	Lab 4 @ 2:40 pm
Fri 10/1	Chapter 15, Introduction to lists	
Mon 10/4	Chapter 15, Introduction to lists (continued)	
Wed 10/6	Chapter 16, Classes	Quiz 5 @ 8 am

Continued on next page

Table 1 – continued from previous page

Date	Class Activity	Due
Thu 10/7	Lab 6 - Text adventure	Lab 5 @ 2:40 pm
Fri 10/8	Chapter 17, Class methods	
Mon 10/11	Chapter 18, Using the Window class	
Wed 10/13	Chapter 19, User control	Quiz 6 @ 8 am, Lab 6 @ 2:40 pm
Thu 10/14	Fall Break	
Fri 10/15	Fall Break	
Mon 10/18	Work on programming problems	
Wed 10/20	Sound effects / Sprites and collisions	Quiz 7 @ 8 am
Thu 10/21	Lab 7 User Control	
Fri 10/22	Sprites and collisions / Moving sprites	
Mon 10/25	Continue moving sprites / Debugging	
Wed 10/27	Shooting sprites examples / Sprites and walls / placement and collision	Quiz 8 @ 8 am
Thu 10/28	Lab 8 - Sprites	Lab 7 @ 2:40 pm
Fri 10/29	Sprites and walls / scrolling	
Mon 11/1	Libraries and modules	
Wed 11/3	Searching - reading from a file and linear search	
Thu 11/4	Lab 9 - Sprites and walls	Lab 8 @ 2:40 pm
Fri 11/5	Binary search	
Mon 11/8	Work on programming problems	
Wed 11/10	Array-backed grids part 1	Quiz 9 @ 8 am
Thu 11/11	Lab 10 - Spell check	Lab 9 @ 2:40 pm
Fri 11/12	Array-backed grids part 2	
Mon 11/15	Platformers	
Wed 11/17	No class	
Thu 11/18	Lab 11 - Array-backed grids	Lab 10 @ 2:40 pm
Fri 11/19	Swapping values and the selection sort	
Mon 11/22	Insertion sort	
Wed 11/24	Thanksgiving Break	
Thu 11/25	Thanksgiving Break	
Fri 11/26	Thanksgiving Break	
Mon 11/29	Sorting Worksheet / Lab	
Wed 12/1	Quantitative Reasoning Assignment / Lab	Quiz 10 @ 8 am
Thu 12/2	Work on Lab 12 - Final lab	Lab 11 @ 2:40 pm, Sorting worksheet, Demo part 1
Fri 12/3	Print formatting / Exceptions	
Mon 12/6	Work on final lab	
Wed 12/8	Recursion / Work on final lab	
Thu 12/9	Work on Lab 12 - Final lab	
12/13 1 pm - 3 pm	Final time, show off projects	Lab 12 & absolutely everything by 3 pm.

6.4 Student Assessment

6.4.1 Assignment Submission

- Assignments must be submitted on-line via Simpson's Scholar website.

- Assignments are not accepted via e-mail.
- Source code will be checked into GitHub.
  - This will require a free account on GitHub.

6.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

6.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

6.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.

- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

6.4.5 Attendance/Participation Policy

(For classes with lab.)

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 2% for each class missed, not including the original three. So missing five classes will be a 4% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. If a student leaves class early without prior permission, he or she will be counted as absent.

6.4.6 Assignments

There are three types of assignments:

- Labs - 20 points, except the final lab which is 60 points
- Quizzes - 10 points
- Coding problems, 2 pts each

Note: Labs can be resubmitted once for more points.

Labs may be resubmitted for a regrade up to one week after they are graded. So if you turn in an assignment on the 8th and it is graded on the 10th at 10 am, then it can be fixed and submitted for a regrade any time up to the 17th at 10 am.

To resubmit a lab you must resubmit it for grading on Scholar. Otherwise I won't know to grade it. Committing and pushing the file to Bitbucket isn't enough.

You may only resubmit a lab once, unless the first time was just a missing graphic or something like that.

Exceptions: Normally time during Fall and Thanksgiving Break aren't counted towards the seven days, although that doesn't matter this year.

6.5 Course Assessment

6.5.1 Engaged Citizenship

6.5.2 Quantitative Reasoning (QR)

Quantitative reasoning is the application of quantitative concepts and skills to solve real- world problems for the purpose of making decisions. To effectively use quantitative reasoning requires understanding how to interpret, evaluate, and use various types of quantitative information in order to support a position or argument. It includes the ability to express quantitative information visually, symbolically, numerically and verbally (including written or oral communication).

In order to perform effectively as professionals and citizens, students must become competent in reading and using quantitative data, in understanding quantitative evidence and in applying quantitative skills to the solution of real-life problems such as choosing the financing for a new home, how to live a sustainable lifestyle, and whether to vote for or against a specific tax. The purpose of embedding the Quantitative Reasoning skills in application courses is to provide our students with quantitative problem-solving experiences at the college level within the context of the content of other college courses. The goal is to instill long-term patterns of interaction and engagement with quantitative problem solving.

A student who completes a QR course will be able to . . .

Student Learning Objective (SLO)		Class activities directly relating to this SLO	Student work to be evaluated for this SLO
QR SLO1. Decide	draw inferences, solve problems and make decisions using quantitative methods	Lecture, quizzes, labs	Final lab
QR SLO2. Communicate	communicate solutions to quantitative questions in oral or written communication that incorporates symbolic, numeric or graphical representations	Lecture, quizzes, labs	Final lab
QR SLO3. Evaluate	analyze solutions to quantitative questions for accuracy, precision, suitability and/or other appropriate criteria	Lecture, quizzes, labs	Final lab
QR SLO4. Reflect	describe the value, limitations and/or implications of quantitative decision making	Lecture, quizzes, labs	Reflection assignment

6.5.3 Student Learning Outcomes for the Major

CMSC Major SLO #1: Design, implement, and analyze computational algorithms.

CMSC Major SLO #2: Design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.

6.5.4 Contact Hours and Learning Time

- Class meets 3 times a week, each time for 1 hour. There are a total of 40 classes. This totals 40 x 1 = 40 hours.
- There are 13 lab sessions, each for 1.5 hours, totaling 19.5 hours

- Each lab should take another 2 hours, totaling 26 more hours. The last lab should take an additional 4 hours for 30 total hours.
- There are 13 quizzes. Taking each quiz should take about 30 minutes, for 7.5 hours
- Reading and reviewing for class should take 3 hours each week, for 39 hours total
- Total time spent on the class should be about 136 hours. This could be more or less depending on talent, and desired grade.

6.6 Policies and Procedures

6.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

6.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

6.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student

Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

6.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

6.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

6.7 Special Covid Additions

Thanks to COVID here are some additional elements:

6.7.1 Wearing Facial Coverings in Classrooms is Required

To help mitigate the transmission of COVID-19, it is required that all students, faculty, and staff wear masks in classrooms, laboratories, and other similar spaces where in-person instruction occurs. This requirement is for all individuals regardless of COVID-19 vaccination status. The masks must cover both nose and mouth and be worn for the duration of class. Consumption of food or drink will not be allowed inside classroom spaces. Mask requirements (both within the classroom and inside campus buildings) will be linked to Simpson College COVID-19 Color Phases and will be evaluated frequently. Please note that Color Phases are heavily influenced by the vaccination rate on campus. You can find more information at COVID-19 Plan. Non-compliance regarding masks may result in students being asked to leave the class, disciplinary action from the academic dean, or failure of the class as outlined in the Student Handbook Standards of Classroom Behavior.

6.7.2 COVID-19 Health-Relates Class Absences

Please evaluate your own health status daily and refrain from attending class if you are ill. Students who miss class due to illness will be given opportunities to access course materials and will not be penalized for not attending class in person. Please work with instructors to either reschedule or electronically/remotely complete exams, labs, and other

academic activities as you are able. You are encouraged to seek appropriate medical attention for treatment of illness. In the event of contagious illness, please do not come to class or to campus to turn in work. Notify me by email about your absence as soon as practical so that accommodations can be made. Please note that documentation (a doctor's note) for medical excuses is NOT required.

6.7.3 Additional Contingency Plans

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed remotely.

6.7.4 Recording Policy

Recording: Class meetings may be recorded by the instructor for student use. To respect the class community, there shall be no other audio or video recording of class activities and no sharing or disseminating recordings or images (including screen shots) of class activities without the permission of the instructor and other members of the class.

May 2021 Classes

CHAPTER 7

CIS 160: Intro to the Creation of 3-D Movies and Graphics

7.1 Course Details

- Course title: Introduction to the Creation of 3-D Movies and Graphics
- Catalog course description: This course will introduce students to creating three dimensional graphics. Students will learn to create three dimensional models, and add texture, lighting, and structure. Students will learn how to animate models and create a movie. Students will work individually or in teams to create and publicly present a final project. ART. Four credits. Offered May Term of odd numbered years.
- Course level student learning objectives (SLOs):
  - Technical
    - Learn to model in three dimensions
    - Learn to texture 3D object
    - Learn to light a 3D scene
    - Learn to animate a 3D scene
  - Artistic
    - Learn to express perspectives, concepts, and ideas using 3D computer graphics as a medium.
    - Reflect and think critically about other's artistic works and your own.
    - Understand the value of the creative process.
    - Express yourself using your own artistic creation.
- Textbook: http://3d-graphics-class.readthedocs.io/ and videos from https://cgcookie.com/

7.2 Instructor

- Instructor Name: Paul Vincent Craven

- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

7.3 Schedule

Class meets every weekday from 8:15 am until 11:15 am, Monday May 3st to Friday May 21, 2021

Approximate schedule:

- Day 01 - Introduction and Blender Basics
- Day 02 - Meshes
- Day 03 - Textures and Painting
- Day 04 - Shading
- Day 05 - Lighting
- Day 06 - Modifiers
- Day 07 - Project Plan
- Day 08 - Animation
- Day 09 - Rendering / What is Art?
- Day 10 - Work on Project
- Day 11 - Work on Project / Lumi
- Day 12 - Work on Project
- Day 13 - Work on Project
- Day 14 - Work on Project
- Day 15 - Final Presentations

Assignments:

- Assignment 1 - How Did The Artist Convey The Message? (10 pts)

- Assignment 2 - Primitive Modeling (10 pts)
- Assignment 3 - Back-Story (10 pts)
- Assignment 4 - Animated Rocket (10 pts)
- Assignment 5 - Modifiers (10 pts)
- Assignment 6 - Final Project Plan (10 pts)
- Assignment 7 - Animation (10 pts)
- Assignment 8 - What is Art? (10 pts)
- Final Project (100 pts)

7.4 Student Assessment

7.4.1 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

7.4.2 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

7.4.3 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

7.4.4 May Term Attendance/Participation Policy

Missing classes will lower your overall grade. The scale:

- One class: 1% lower
- Two classes: 4% lower
- Three classes: 7% lower
- Four classes: 11% lower
- Five or more: F

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Note: To be counted as attending class, the student must be present when the instructor takes attendance. If a student leaves early during class, he or she will be counted as absent.

7.4.5 Assignments

There will be eight assignments, plus a final project. Each assignment is worth ten points, for a total of ninety points. The final assignment is worth one hundred points. The class will be graded out of 180 points total.

7.5 Course Assessment

7.5.1 Engaged Citizenship Grids

7.5.2 The Arts (AR)

The arts are a vital component of human existence. They provide an opportunity to experience and express the world in ways distinct from other disciplines. The Arts component of the General Education curriculum focuses on learning through participation in artistic creation. By taking a course that engages students in the act of creation, students will develop an understanding of art as a constructed means for communication, designed to reveal certain meanings and ideas or to elicit specific responses. Students are given the opportunity to develop their imaginations and to develop their ability to express themselves.

The general education program prepares students to become engaged citizens by exploring enduring questions about ourselves, civilization, and the world and by developing the skills necessary to shape and create a diverse and just community. As an organizing principle, citizenship encourages an emphasis on issues of personal integrity, moral responsibility and social justice. The arts have long been instrumental in the exploration and pursuit of engaged citizenship.

A student who completes an AR course will be able to...

Student Learning Objective (SLO)		Class activities directly relating to this SLO	Student work to be evaluated for this SLO
AR SLO1.	Express perspectives, concepts and/or ideas through an artistic medium	Lessons, assignments	Final Project
AR SLO2.	Reflect and think critically about one's own and others' artistic work(s) employing vocabulary and evaluative skills appropriate to the genre.	Lecture, assignments	Reflection turned in with final project
AR SLO3.	Articulate the value of the creative process	Lecture, assignments	Reflection turned in with final project

7.5.3 Contact Hours and Learning Time

- In class time: 3 hours per day, 3 weeks, 5 days per week = 45 hours
- Out-of-class video tutorial time: 2 hours per day, 3 weeks, 5 days per week = 30 hours
- Out-of-class time spent on creating 3D graphics: 3 weeks, 5 days per week = 45 hours

Total time = 45 + 30 + 45 = 120 hours.

7.6 Policies and Procedures

7.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

7.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

7.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

7.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

7.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In

order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

Important info:

CHAPTER 8

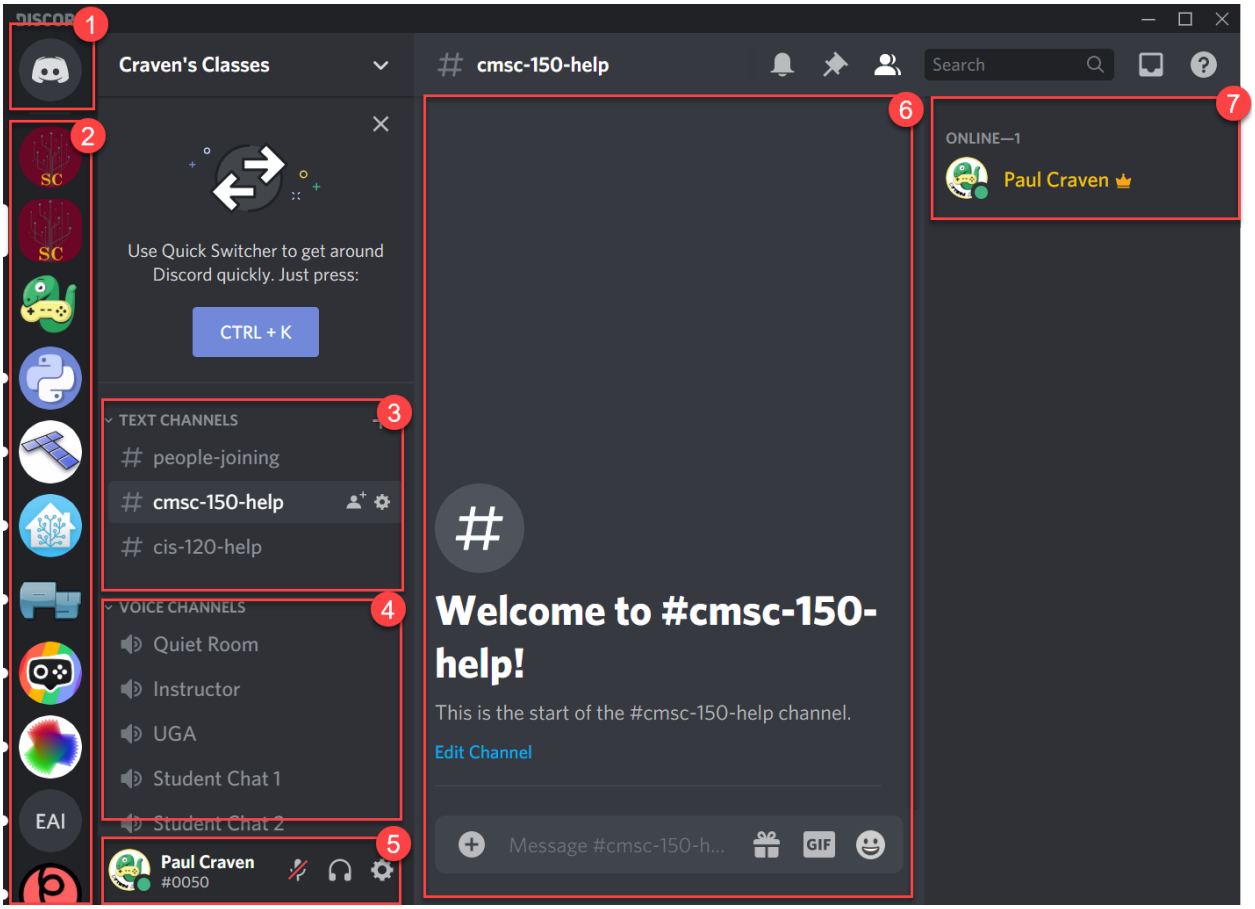
Discord How-To

Discord is a program that allows team communication. There are many products similar to discord:

- Slack
- Google Groups
- Microsoft Teams
- Mattermost

You'll need to create an account for Discord. Your display name for discord must be recognizable as your actual real-life name. (Note: You can change your display name on a per-server basis, if you use discord for gaming.)

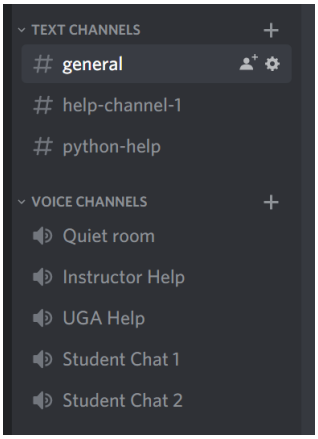
This is the main window for Discord:



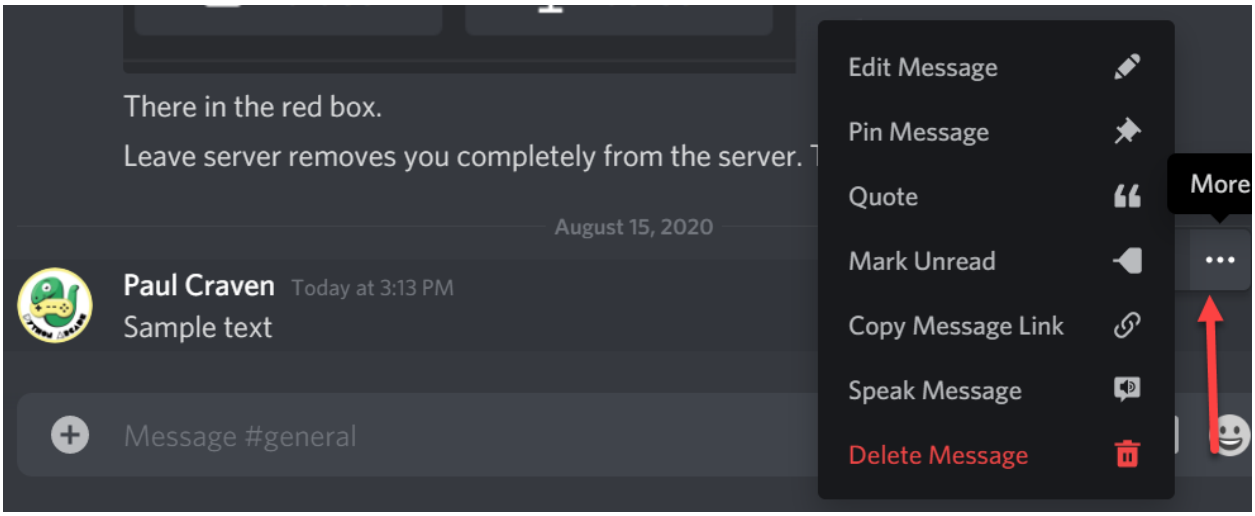
1. This icon lets you manage direct messages (DMs) and friends.
2. These icons are for your servers. I belong to servers for the Arcade library, the Python language, the tiled map editor, home automation, and more.
3. Text channels allow you to type text, post images, video clips, emoji's, and gifs.
4. Voice channels allow you to conference call with voice, and optionally video and screen sharing.
5. This part is you. It allows you to mute your microphone, your audio, hang up on voice calls, and change your settings.
6. When doing text of video chat, you'll see the content here.
7. You can see who is on-line of off-line with your server here.

8.1 Text Channels

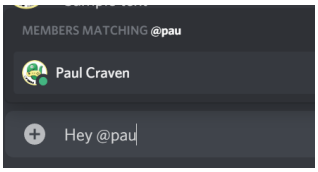
To change channels, just double-click on the channel:



After typing a message in a text channel, you can hover over it to the right of the message and get options. You can 'like' other people's messages. You can even edit your own message, or delete it.

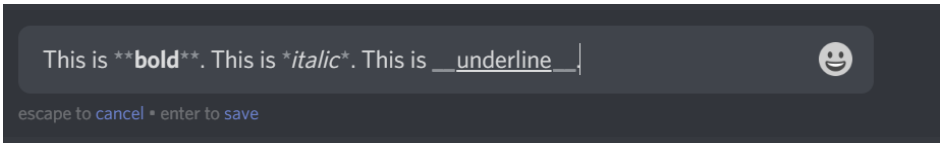


You can 'ping' someone by using an @. For example, if you type an @ it will come up with a list of people matching as you type. Select the person. In my case, I have the Discord app on my phone and it will alert me. Great if you've got a time-sensitive question.

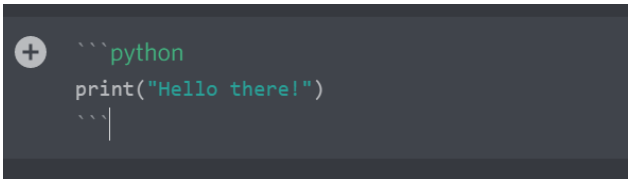


You can enter multiple lines at one by hitting shift-enter instead of just enter.

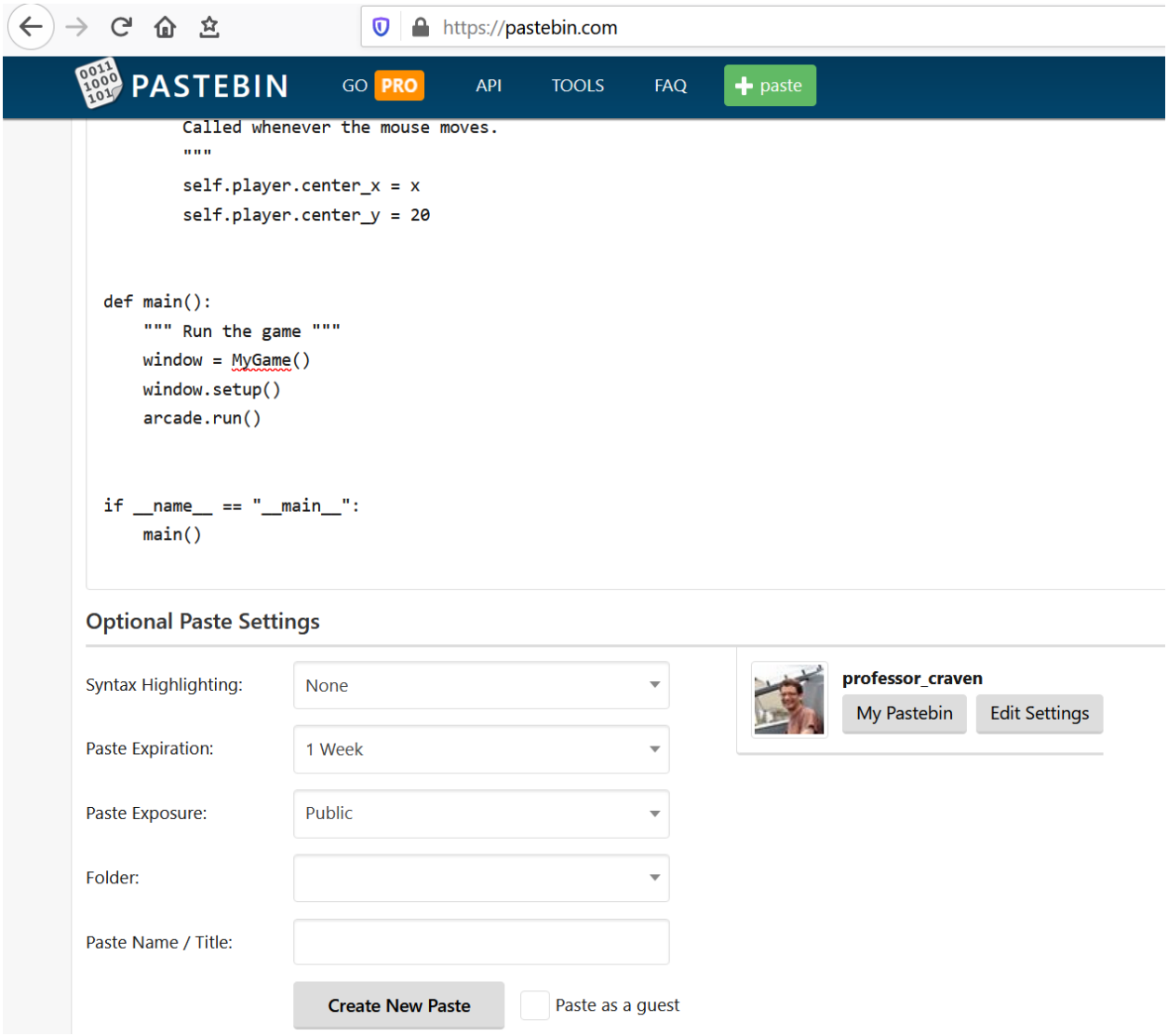
Messages are formatted by some simple Markdown. So you can do a bit of formatting.



The most important markdown is the ability to put in fragments of code. Surround your code with three back-ticks. (A back-tick is the key in the upper-left of your keyboard, under the Esc key.) You can also tell Discord what language you are typing in so that it highlights the code properly:

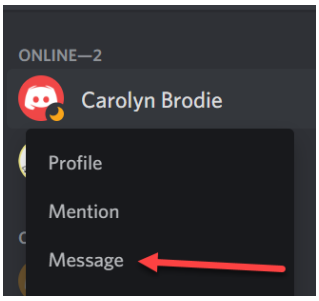


Only past short code samples, no more than 20 lines. If you need a longer set of code, there are websites like PasteBin. Go there, paste in your program, and then put a link to the program in Discord.



You can also put in a link to your code if you've uploaded it to GitHub.

You can send a direct message to someone by right-clicking on their name. For example, if you want to ask a question to the instructor, but don't want everyone to see what the question was.

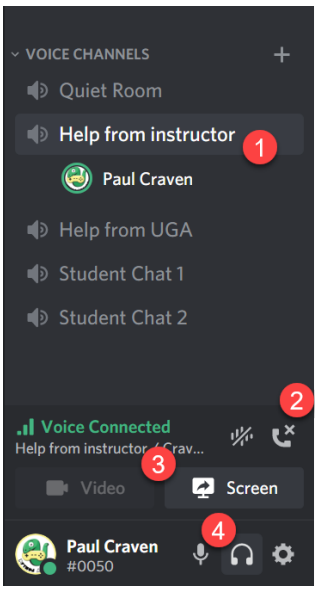


8.2 Voice/Video Channels

Note: Some Macs requires you to give Discord permission to do screen streaming. Click on the Apple menu, then Settings > Security and Privacy > Screen Recording > check discord

Discord isn't limited to text. You can communicate by voice, video, and screen sharing. While you can run Discord in a browser, I've found these features to require the app to run reliably.

These are done in "Voice Channels". Just click on a voice channel to join (1):

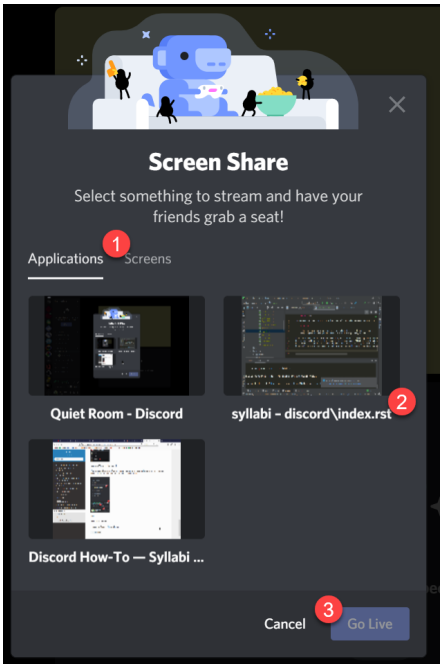


To hang-up and get out of a voice channel, hit the hang-up button (2).

Important: Make sure you hang up your discord when done! It is way too easy to stay logged in for yours. That is a serious privacy issue.

You can share video, or your screen by hitting (3). Clicking the microphone button (4) will mute so that people can't hear you. Clicking the headphones will make it so you can't hear anyone else. Great if you just want to hang out in the quiet room for lab and not be bothered by any idle conversation.

When you share your screen, you'll get a window of options like this:

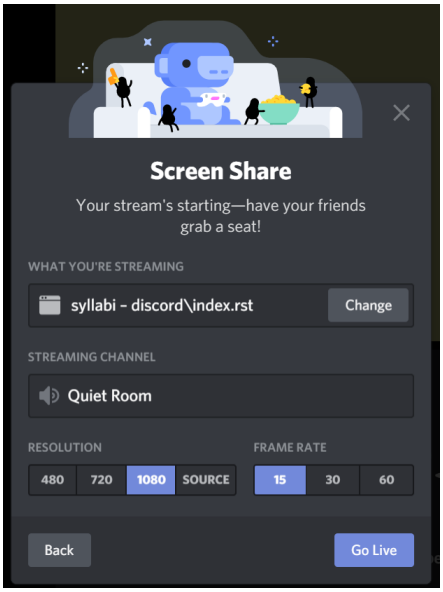


The program has two tabs (1) Applications and Screens. You can either select just an application window to share, or you can share your entire screen.

You can select the application you want the other person to see. In this case, you might select (2) which is the PyCharm window with my code in it. Then click "Go Live" (3).

If you are running programs or web pages, and need me to see both the source code and the resulting program/web page, then you may need to share your entire screen.

When you go live, you can select your video resolution:



Pick the highest resolution you have available to make the text readable. I pay for higher resolution, the free accounts are more limited.

CHAPTER 9

How to Ask a Technical Question

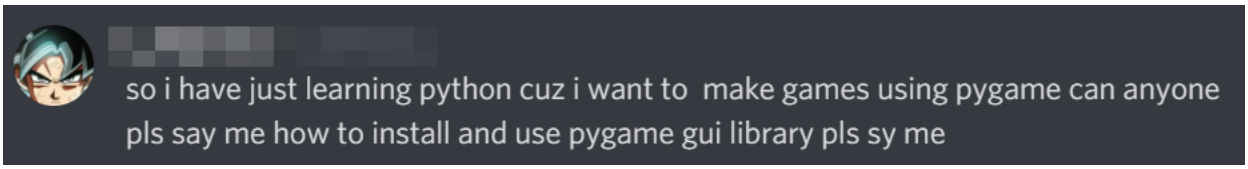
Tech people often love to help others, and answer questions. These people could be other students, people you know at work, or even members of larger communities that hang out together on-line.

To newcomers, it can often seem completely baffling on which questions are answered. Some questions are answered in minutes, while others are completely ignored. Why?

Most of the reason boils down to one thing – how the question is asked.

9.1 The Right Way to Ask a Question

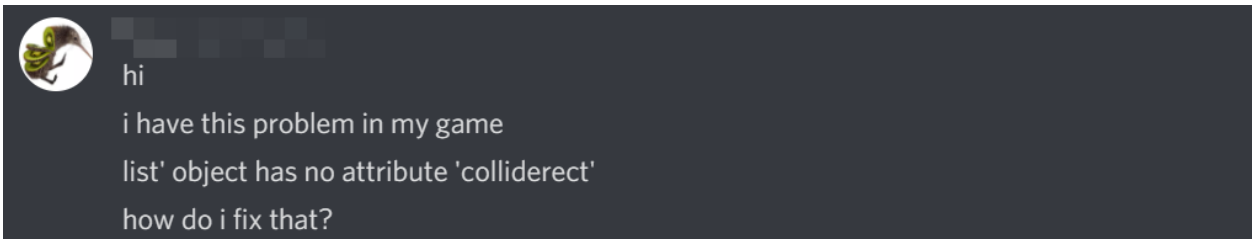
Show you've done your research. There's a *ton* of information out there on the web. In the example below, the person doesn't look like he's even attempted to search online for "how to install pygame."



This question falls under the "Here, let me Google that for you" category. No one is going to want to bother answering it.

A better question that shows the person has done research: "Hi, I've tried following this tutorial [link] and this other tutorial [link] for installing Pygame, but I get stuck on the third step because when I type 'python' is says 'command not found'." *That* question shows you've done your research and put some effort into it.

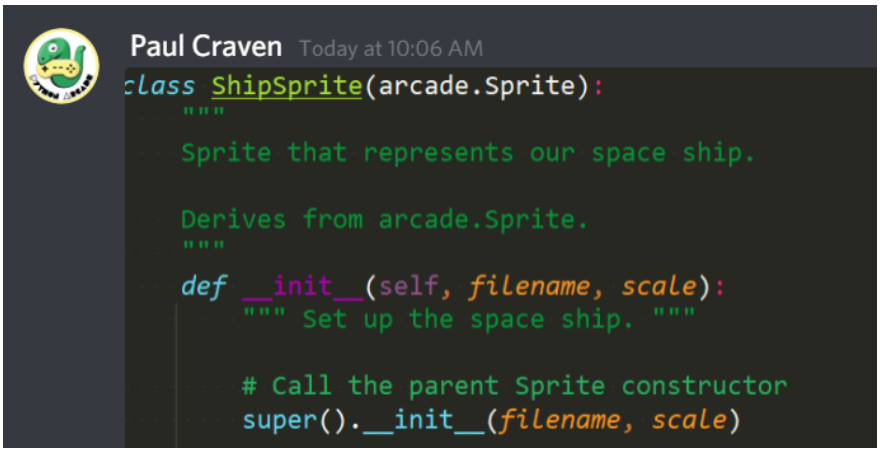
Be specific. Here's an example of a question that isn't very specific:



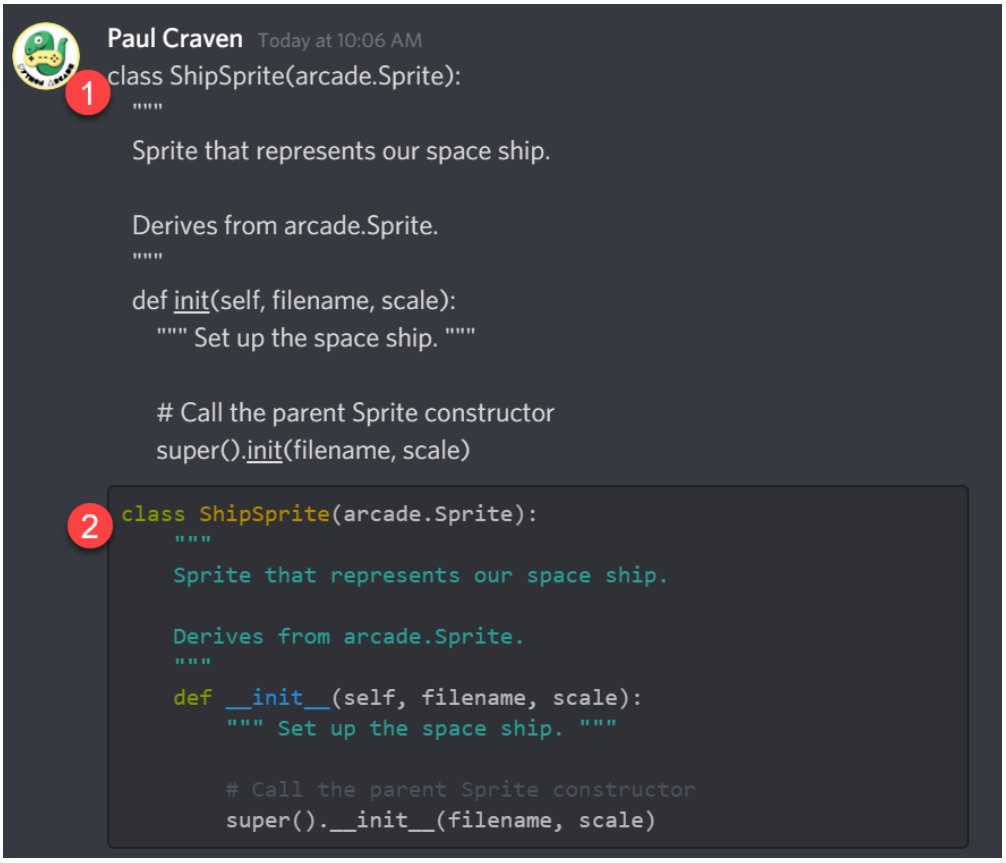
This person did not list the code that caused the error, or talk about what she did to get the error. Whoever tries answering will first have to ask a lot of basic questions. What was the exact error that you got? What was the code that caused it? What were you trying to do? That's *exhausting*. Anyone asking a question should include the info to begin with.

Include code relevant to the error. Include the part of the code that is causing the problem. The "holy grail" of doing this, is to include a small program a person can run to replicate the error.

Make code readable. Whatever platform you are using to get help, learn how to format code on it. For example, in the example below the person has pasted an *image* of the code. So if I was trying to answer a question, I can't copy and edit or try out the code. I'd have to retype it.



The next image shows two examples. In the first (1) part, the code is just pasted into a chat window. The chat has incorrectly mangled some of the code, and it isn't formatted nicely. In the second part (2) the person learned to use the chat's code formatting tool. Now the code looks great *and* it is easy to copy so that a person answering your question doesn't have to retype the code.



Include error messages. It is a good idea to include the full error message with your question if you question involves an error. For example here is a (long) error message.

```
C:\Users\craven\Desktop\WebServer\arcade\venv38\Scripts\python.exe C:/Users/craven/
↪Desktop/WebServer/arcade/arcade/examples/asteroid_smasher.py
Traceback (most recent call last):
  File "C:/Users/craven/Desktop/WebServer/arcade/arcade/examples/asteroid_smasher.py",
↪ line 411, in <module>
    main()
  File "C:/Users/craven/Desktop/WebServer/arcade/arcade/examples/asteroid_smasher.py",
↪ line 407, in main
    arcade.run()
  File "C:\Users\craven\Desktop\WebServer\arcade\arcade\window_commands.py", line 236,
↪ in run
    pyglet.app.run()
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-packages\pyglet\app\_
↪_init__.py", line 107, in run
    event_loop.run()
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-
↪packages\pyglet\app\base.py", line 167, in run
    timeout = self.idle()
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-
↪packages\pyglet\app\base.py", line 243, in idle
    window.dispatch_event('on_draw')
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-
↪packages\pyglet\window\__init__.py", line 1333, in dispatch_event
    if EventDispatcher.dispatch_event(self, *args) != False:
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-
↪packages\pyglet\event.py", line 553, in dispatch_event
```

(continues on next page)

(continued from previous page)

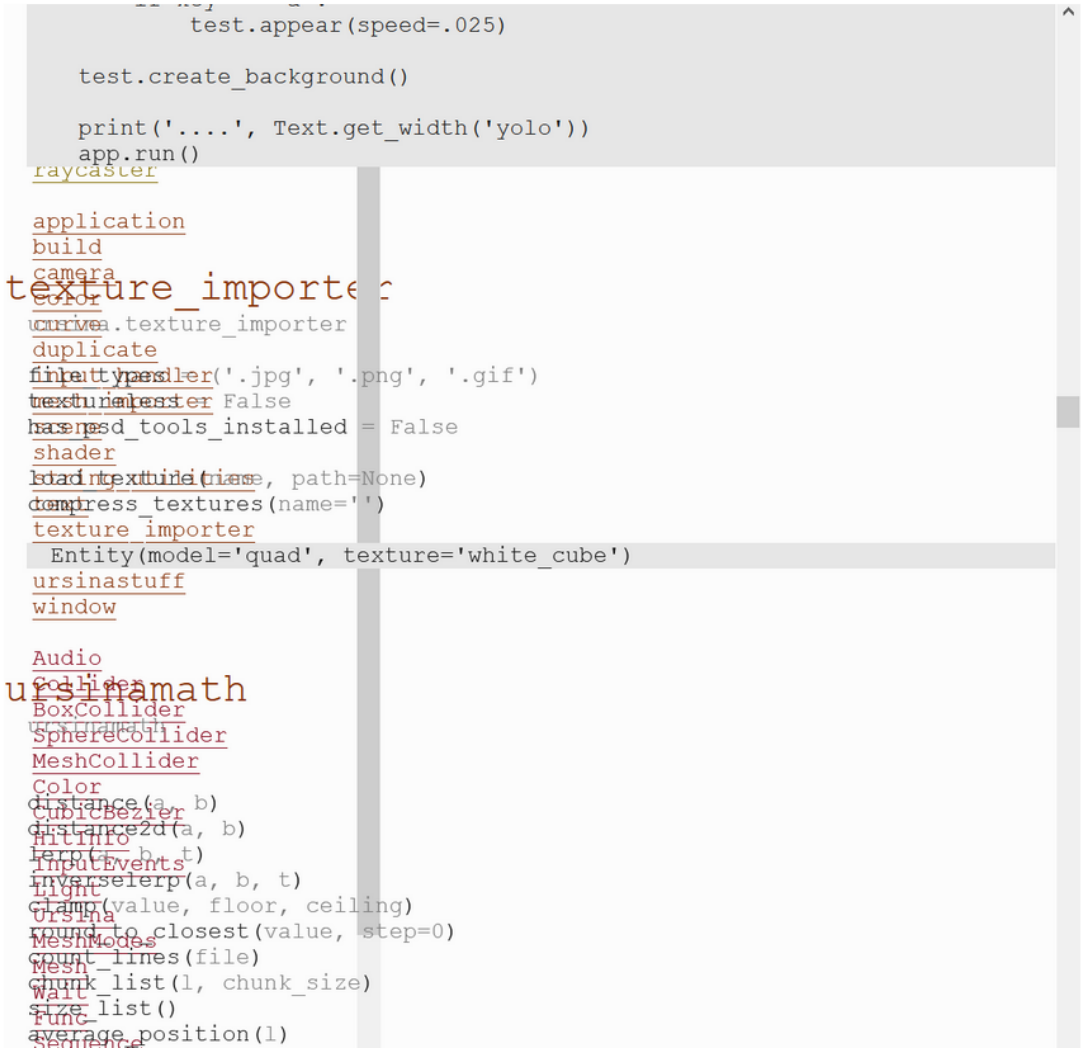
```
    self._raise_dispatch_exception(
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-
↪packages\pyglet\event.py", line 603, in _raise_dispatch_exception
    raise exception
  File "C:\Users\craven\Desktop\WebServer\arcade\venv38\lib\site-
↪packages\pyglet\event.py", line 550, in dispatch_event
    if handler(*args):
  File "C:/Users/craven/Desktop/WebServer/arcade/arcade/examples/asteroid_smasher.py",
↪ line 240, in on_draw
    arcade.draw_text(10, output, 10, 70, arcade.color.WHITE, 13)
  File "C:\Users\craven\Desktop\WebServer\arcade\arcade\text.py", line 272, in draw_
↪text
    r, g, b, alpha = get_four_byte_color(color)
  File "C:\Users\craven\Desktop\WebServer\arcade\arcade\drawing_support.py", line 62,␣
↪in get_four_byte_color
    if len(color) == 4:
TypeError: object of type 'int' has no len()

Process finished with exit code 1
```

Include screenshots. If things appear differently for you, include a screenshot. For example, here's a bug I filed that showed how a web page appeared for me:

pvcraven commented 15 days ago

I'm running on Windows. Went here:
https://www.ursinaengine.org/cheat_sheet.html#Audio

Docs look weird on Firefox and Chrome:



It looked find for the developer, so he needed to see on my screen what was happening.

When taking screenshots, there is a "Snipping Tool" on windows that allows you to screenshot just part of a window. Alternatively, you can use Alt-PrintScreen which will copy the active window. Then paste it in Microsoft Paint and save it. Don't screenshot your *entire* window with the PrintScreen button. That's too much waste.

Older Classes:

CHAPTER 10

SC 101 Joss Whedon Productions

10.1 Course Details

- Course title: SC 101 Joss Whedon Productions
- Catalog course description: Joss Whedon has played a part in the creation of two Avengers movies, the original Toy Story, and TV shows such as Firefly and Buffy the Vampire Slayer. His shows are known for playing out difficult cultural issues in fantasy-world settings. Real problems people face become literal monsters in his shows. We will critically examine how Joss Whedon's work applies to the metaphorical monsters in our own lives. Topics include gender roles, addiction, class, sexuality, bereavement, family, relationships, and how we find our own place in society. CRITTHNK, WRITCOM. Four credits.
- Course level student learning objectives (SLOs).
  - Get introduced to college (academic resource center, career services department, library, study abroad, counseling services, mentors in violence, student activities, and more)
  - Learn to write at a college level. Express your idea, create a thesis, edit and correct for grammar, provide evidence to support claims, and structure your writing in a logical fashion.
  - Learn to think critically
- Textbook: None

10.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting

  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

10.3 Schedule

Class meets Monday, Tuesday, and Friday from 1:00 pm until 2:00 pm.

10.3.1 Academic Calendar

Fall Semester 2020	Date
Classes Begin	Aug-24
Convocation	Aug-26
Last Day to Add/Drop	Aug-28
Labor Day: Regular class day	Sep-07
Midterm	Oct-08
Last Day to Withdraw	Oct-28
Thanksgiving Break	Nov 25-27
Last day of class	Nov-30
College Reading Day	Dec-01
Final Exam Week	Dec 02-04

Daily class schedule: https://whedon-sc101.readthedocs.io/en/latest/schedule.html

10.4 Student Assessment

10.4.1 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.

- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

10.4.2 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

10.4.3 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

10.4.4 Attendance/Participation Policy

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 3% for each class missed, not including the original three. So missing five classes will be a 6% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. Showing up to class 10 minutes late does not count towards attendance. Therefore continually showing up to class late can really hurt a student's grade. If a student leaving class early with prior permission will be counted as absent.

COVID-19: Absences due to Covid-19 are excused, but you need to let me know, along with health services.

10.4.5 Assignments

Assignments are listed here: https://whedon-sc101.readthedocs.io/en/latest/#assignments

10.5 Course Assessment

10.5.1 Engaged Citizenship

10.5.2 Critical Thinking

Critical Thinking courses develop the lifelong intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information that is used to guide beliefs and actions. This skill helps with the ability to make sound arguments based on adequate evidence and to rationally examine and assess one's own arguments and those of others.

Through completion of a CT course, students should be able to

- draw conclusions by analyzing information critically
- generate and articulate an argument supported by appropriate evidence
- evaluate arguments for validity, bias, unchecked assumptions and/or other appropriate criteria
- describe the effect of one's experiences on the development of critical thinking skills

These objectives will be met through the following assignments and activities: _____ .

Syllabus grid template for CT

A student who completes a CT course will be able to . . .

Student Learning Objective (SLO)		Class activities directly relating to this SLO	Student work to be evaluated for this SLO
CT SLO1.	draw conclusions by analyzing information critically	Class writing activities	Final paper
CT SLO2.	generate and articulate an argument supported by appropriate evidence	Class writing activities	Final paper
CT SLO3.	evaluate arguments for validity, bias, unchecked assumptions and/or other appropriate criteria	Class writing activities	Final paper
CT SLO4.	describe the effect of one's experiences on the development of critical thinking skills	Class writing activities	Final paper

10.5.3 Written Communication (WC)

Written communication is the ability to communicate successfully via handwritten, printed, or electronic text.

Writing is an essential skill that students need in order to comprehend, analyze, and synthesize a variety of texts in a variety of disciplines. In college, students will learn to write in multiple contexts: in the Simpson Colloquiums, in general education courses, in courses for their majors, and in elective courses. Effective writing is also a skill they will find indispensable in their professional lives beyond the undergraduate academic setting.

Engaged citizens rely on strong writing skills, whether they are exploring and developing their own ideas, responding fairly and responsibly to the ideas and perspectives of others, or crafting the polished, compelling and persuasive expression so often necessary to shaping and creating a diverse and just community.

A student who completes a WC course will be able to…

Student Learning Objective (SLO)		Class activities directly relating to this SLO	Student work to be evaluated for this SLO
WC SLO1.	articulate an idea and formulate a thesis as appropriate to the discipline	Class writing activities	Final paper
WC SLO2.	identify and correct errors in grammar and/or style in written communication	Class writing activities	Students review each other's final paper draft and turn in a marked-up copy
WC SLO3.	provide credible evidence to support claims and arguments in written communication	Class writing activities	Final paper
WC SLO4.	organize thoughts in a logical fashion in written communication	Class writing activities	Final paper

10.6 SC 101 Contact Time

TBD

10.7 Policies and Procedures

10.7.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

10.7.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

10.7.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

10.7.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's

commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

10.7.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

10.8 Special Covid Additions

Thanks to COVID here are some additional elements:

10.8.1 Wearing Facial Coverings in Classrooms is Required

To help mitigate the transmission of COVID-19, it is required that all students, faculty, and staff wear masks in classrooms, laboratories, and other similar spaces where in-person instruction occurs. This requirement is for all individuals regardless of COVID-19 vaccination status. The masks must cover both nose and mouth and be worn for the duration of class. Consumption of food or drink will not be allowed inside classroom spaces. Mask requirements (both within the classroom and inside campus buildings) will be linked to Simpson College COVID-19 Color Phases and will be evaluated frequently. Please note that Color Phases are heavily influenced by the vaccination rate on campus. You can find more information at COVID-19 Plan. Non-compliance regarding masks may result in students being asked to leave the class, disciplinary action from the academic dean, or failure of the class as outlined in the Student Handbook Standards of Classroom Behavior.

10.8.2 COVID-19 Health-Relates Class Absences

Please evaluate your own health status daily and refrain from attending class if you are ill. Students who miss class due to illness will be given opportunities to access course materials and will not be penalized for not attending class in person. Please work with instructors to either reschedule or electronically/remotely complete exams, labs, and other academic activities as you are able. You are encouraged to seek appropriate medical attention for treatment of illness. In the event of contagious illness, please do not come to class or to campus to turn in work. Notify me by email about your absence as soon as practical so that accommodations can be made. Please note that documentation (a doctor's note) for medical excuses is NOT required.

10.8.3 Additional Contingency Plans

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed remotely.

10.8.4 Recording Policy

Recording: Class meetings may be recorded by the instructor for student use. To respect the class community, there shall be no other audio or video recording of class activities and no sharing or disseminating recordings or images (including screen shots) of class activities without the permission of the instructor and other members of the class.

CHAPTER 11

CMSC 386 Capstone

11.1 Course Details

- Course title: CMSC Capstone
- Catalog course description: Students must work on either a significant research project, a significant software development project, or a development project as part of an internship. This is a one credit version of 385 for when a student is working on an internship or project in combination with another major that does not require an additional four credits of load. Prerequisite: Completion of at least one 300-level CmSc or CIS course, submission of a proposal, and senior standing. One credit. Offered every semester.
- Course level student learning objectives (SLOs):
  - Course SLO #1: Graduates with a B.A. in Computer Science will be able to design, implement, and analyze computational algorithms.
  - Course SLO #2: Graduates with a B.A. in Computer Science will be able to design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.
  - Course SLO #3: Graduates with a B.A. in Computer Science will be able to design, implement, and modify normalized database systems. Graduates will also be able to write software that uses a database.
  - Course SLO #4: Graduates with a B.A. in Computer Science will be able to demonstrate how the features of the hardware system support software organization and performance.
- Textbook: None

11.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting

        * https://calendly.com/paul-craven/in-person-30-minute-meeting
    - Over Zoom
        * https://calendly.com/paul-craven/zoom-15-minute-meeting
        * https://calendly.com/paul-craven/zoom-30-minute-meeting
    - In McNeill 110 (Make sure lab is open)
        * https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
    - E-mail: paul.craven@simpson.edu <- Best way to contact me.
        * When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
    - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
    - Phone: 515-961-1834 <- I rarely answer this.

11.3 Schedule

There is no formal meeting time for CIS 386. Class is conducted on-line.

11.3.1 Academic Calendar

Summer Semester 2020	Date
First Day	Jun-01
Last Day of Class	Aug-23

11.4 Student Assessment

11.4.1 Assignment Submission

Assignments must be submitted on-line via Simpson's Scholar website.

Assignments are not accepted via e-mail.

11.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.

- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

11.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

11.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

11.4.5 Attendance/Participation Policy

11.4.6 Assignments

- Monday, 6/8 at 8 am: Report 1
- Monday, 6/15 at 8 am: Report 2
- Monday, 6/22 at 8 am: Report 3
- Monday, 6/29 at 8 am: Report 4
- Monday, 7/6 at 8 am: Report 5
- Monday, 7/13 at 8 am: Report 6
- Monday, 7/20 at 8 am: Report 7
- Monday, 7/27 at 8 am: Report 8
- Monday, 8/3 at 8 am: Report 9
- Monday, 8/10 at 8 am: Report 10
- Monday, 8/17 at 8 am: Report 11
- Monday, 8/23 at 8 am: Report 12 - Final Report

11.5 Course Assessment

11.5.1 Engaged Citizenship Grids

This course does not have any ECC designations.

11.5.2 Student Learning Outcomes for the Major

CMSC Major SLO #1: Design, implement, and analyze computational algorithms.

CMSC Major SLO #2: Design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.

CMSC Major SLO #3: Design, implement, and modify normalized database systems. Graduates will also be able to write software that uses a database.

CMSC Major SLO #4: Demonstrate how the features of the hardware system support software organization and performance.

11.5.3 Contact Hours and Learning Time

When doing a capstone as a 386 class instead of a 385 class, students should be spending 10 or more hours per week with a supervisor performing work related to their degree. Another option is to work with a different professor and do 10 or more hours per week on related research.

The reports should take approximately 30 minutes to write each week. With 14 weeks in the course, the total number of hours involved should be approximately 146 hours.

11.6 Policies and Procedures

11.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

11.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

11.6.3 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

11.6.4 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need

something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

11.6.5 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

11.6.6 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

CHAPTER 12

CMSC 385 Capstone

12.1 Course Details

- Course title: CMSC Capstone
- Catalog course description: Students must work on either a significant research project, a significant software development project, or a development project as part of an internship. Prerequisite: Completion of at least one 300-level CmSc or CIS course, submission of a proposal, and senior standing. Four credits. Offered spring semesters.
- Course level student learning objectives (SLOs):
  - Course SLO #1 design, implement, and analyze computational algorithms.
  - Course SLO #2 design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.
  - Course SLO #3 design, implement, and modify normalized database systems. Graduates will also be able to write software that uses a database.
  - Course SLO #4 demonstrate how the features of the hardware system support software organization and performance.
  - Course SLO #5 apply and manage computer systems to meet business objectives.
  - Course SLO #6 create and manage computer systems utilizing a variety of information technologies.
  - Course SLO #7 design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.
- Textbook: None

12.2 Instructor

- Instructor Name: Paul Vincent Craven

- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

12.3 Schedule

There is no formal meeting time for CMSC 385. Class is conducted on-line.

12.3.1 Academic Calendar

Summer Semester 2017	Date
First Day	May-30
Last Day of Class	Aug-17

12.4 Student Assessment

12.4.1 Assignment Submission

Assignments must be submitted on-line via Simpson's Scholar website.

Assignments are not accepted via e-mail.

12.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

12.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

12.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

12.4.5 Attendance/Participation Policy

12.4.6 Assignments

- Monday, Jun 04 at 8:00 am: Assignment 1 - Zukei Puzzle
- Monday, Jun 12 at 8:00 am: Assignment 2 - Node.js Report to Management
- Monday, Jun 19 at 8:00 am: Assignment 3 - Node.js Proof-of-Concept
- Monday, Jun 26 at 8:00 am: Assignment 4 - Node.js Tutorial/Technical Report
- Monday, Jul 03 at 8:00 am: Assignment 5 - Database Diagramming
- Monday, Jul 10 at 8:00 am: Assignment 6 - Cloud Services Part 1
- Monday, Jul 17 at 8:00 am: Assignment 7 - Cloud Services Part 2
- Monday, Jul 24 at 8:00 am: Assignment 8 - Data Structures 1
- Monday, Jul 31 at 8:00 am: Assignment 9 - Data Structures 2
- Monday, Aug 07 at 8:00 am: Assignment 10 - Final Project Draft
- Monday, Aug 14 at 8:00 am: Assignment 11 - Final Project

12.5 Course Assessment

12.5.1 Engaged Citizenship Grids

This course does not have any EC designations.

12.5.2 Student Learning Outcomes for the Major

CMSC Major SLO #1: Design, implement, and analyze computational algorithms.

CMSC Major SLO #2: Design computer systems, implement algorithms as part of those systems, and create well-written and documented programs.

CMSC Major SLO #3: Design, implement, and modify normalized database systems. Graduates will also be able to write software that uses a database.

CMSC Major SLO #4: Demonstrate how the features of the hardware system support software organization and performance.

12.5.3 Contact Hours and Learning Time

- Assignments are designed to take approximately 8-15 hours to complete.
- The last is designed to take approximately 20 hours to complete.
- About one hour is expected to review assignments after they are graded.
- About 140 hours should be spent on this class.

12.6 Policies and Procedures

12.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

12.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

12.6.3 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

12.6.4 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need

something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

12.6.5 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

12.6.6 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

CHAPTER 13

CIS 320 Advanced Web Development and Security

13.1 Course Details

- Course title:

  CIS 320 Advanced Web Development and Security

- Catalog course description:

  This class covers server and client side programming and security. Students learn to create, read, update, and delete records in a database through a website. Students learn how manage security with data validation and encoding, session management, encryption, hashing, and understanding common security vulnerabilities. Students will learn to fine, use, and integrate common code libraries and applications into their website. Prerequisites: CIS 120, CMSC 150, and CIS 255. WRITCOMM. Four credits. Offered every spring of odd numbered years.

- Course level student learning objectives (SLOs):
  - Learn to create web applications that can create, read, update, and delete records from a database.
  - Learn to validate information both on the server side and on the client side.
  - Learn how to protect against common security vulnerabilities.
  - Learn both encryption and hashing.
  - Learn to authenticate and authorize users and manage session information.
  - Learn to manage a server stack.
  - Learn to write tutorials, and to create a security plan.
- Textbook is on-line: http://web-development-class.readthedocs.io

13.2 Instructor

- Instructor Name: Paul Vincent Craven

- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)
    - https://calendly.com/paul-craven/mcneill-110-30-minute-meeting
- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    - When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

13.3 Schedule

Class meets Tuesday/Thursday from 8:00 am until 9:30 am.

13.3.1 Academic Calendar

Spring Semester 2021	Date
Classes Begin	Jan-19
Last Day to Add/Drop	Jan-25
No Class	Feb 26
Mid-Term Date	Mar-08
Mid-Term Grades Due	Feb-10
Last Day to Withdraw	Mar-26
Easter Recess	Apr-05
Honors Convocation Ceremony	Apr-21
Research Symposium (No Class)	Apr-22
Last Day of Class	Apr-26
College Reading Day	Apr-29
Spring Final Exam Week	Apr 27-29
Commencement	May-01
All Spring Grades Due	May-04

13.3.2 Class Calendar

I plan on keeping to the due dates on the assignments. The exact topics of what we cover in class will be adjusted as needed.

Date	Class	Topic	Assignment due	Points
Tue, Jan 19	1	Syllabus, CRUD overview, stack overview		
Thu, Jan 21	2	Local & production environment setups. Show IntelliJ and Tomcat working. Demo how to do Lab 1.		
Tue, Jan 26	3	Go through JavaScript chapter	Assignment 1 - Full Stack Deployment	100
Thu, Jan 28	4	Go through jQuery chapter. Go through regular expression tutorial.		
Tue, Feb 02	5	Talk about class paper, paper topic choices, annotated bibliography		
Thu, Feb 04	6	Talk about JSON Work with setting up Amazon RDS	Assignment 2 - First JavaScript Assignment	100
Tue, Feb 09	7	Manage DB connections in Java. Work on lab 3.		
Thu, Feb 11	8	Lab 3	Research paper, annotated bibliography	100
Tue, Feb 16	9	Making JSON calls over AJAX, work on Lab 4	Assignment 3 - List Records	100
Thu, Feb 18	10	How to encode characters for the web, Work on Lab 4		
Tue, Feb 23	11		Research paper, outline	100
Thu, Feb 25	12	Modern build process, work on Lab 5 form validation	Assignment 4 - List Records - Final	100
Tue, Mar 02	13	Talk about check-boxes and file uploads.		
Thu, Mar 04	14	How to delete n-1 rows of a table in Javascript	Research paper, rst setup	100
Tue, Mar 09	15	Talk about getting data from a form in code	Assignment 5 - Validate a Form	100
Thu, Mar 11	16			
Tue, Mar 16	17		Research paper, first page	100
Thu, Mar 18	18	How to do back-end validation. Work on Assignment 7	Assignment 6 - Insert a Record	100
Tue, Mar 23	19	Work on Assignment 7		
Thu, Mar 25	20	Talk about passwords and password rules. Work on assignment 8		
Tue, Mar 30	21		Assignment 7 - Back-End Validate / Delete a Record	100
Thu, Apr 01	22	Work on assignment 8		
Tue, Apr 06	23	Cookies and sessions	Research paper, draft	100
Thu, Apr 08	24	Local storage, work on login lab	Assignment 8 - Edit a Record	100
Tue, Apr 13	25	Work on login lab		
Thu, Apr 15	26			
Tue, Apr 20	27	Talk about encoding, citations, final paper		

Continued on next page

Table 1 – continued from previous page

Date	Class	Topic	Assignment due	Points
Thu, Apr 22	No class	Symposium day	Research paper, final	100
Tue, Apr 27	No class	Final exam week		
Thu, Apr 29	No class	Final exam week	Assignment 9 - Login Lab	100
			Total points	1000
		A	93%	930
		A-	90%	900
		B+	87%	870
		B	83%	830
		B-	80%	800
		C+	77%	770
		C	73%	730
		C-	70%	700
		D+	67%	670
		D	63%	630
		D-	60%	600

13.4 Student Assessment

13.4.1 Assignment Submission

- Assignments must be submitted on-line via Simpson's Scholar website.
- Assignments are not accepted via e-mail.
- Source code will be checked into GitHub.
  - This will require a free account on GitHub.
- A live web server must be maintained using Amazon Web Services.
  - This will require an AWS account linked to a credit card. AWS offers one year of very basic level service free. If you are past that year there will be a nominal charge.
  - Make sure you shut down your servers at the end of class so you don't keep getting charged.
  - See the instructor if you are not able set up your own server.

13.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average

as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

13.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

13.4.4 Late-Work/Make-up Work Policy

- All work should be turned in on-time.
- Late work will be assigned a penalty:
  - 1-3 calendar days: 5%
  - 4-7 calendar days: 10%
  - 8-10 calendar days: 15%
  - 11-14 calendar days: 20%
  - 14+ calendar days, not accepted
- All work must be in by midnight, April 29th. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and assignments are due Monday morning. Not knowing when the lab is open is not accepted as an excuse.

13.4.5 Attendance/Participation Policy

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 3% for each class missed, not including the original three. So missing five classes will be a 6% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. Showing up to class 10 minutes late does not count towards attendance. Therefore continually showing up to class late can really hurt a student's grade. If a student leaving class early with prior permission will be counted as absent.

COVID-19: Absences due to Covid-19 are excused, but you need to let me know, along with health services.

13.5 Course Assessment

13.5.1 Engaged Citizenship Grids

13.5.2 Written Communication (WC)

Written communication is the ability to communicate successfully via handwritten, printed, or electronic text.

Writing is an essential skill that students need in order to comprehend, analyze, and synthesize a variety of texts in a variety of disciplines. In college, students will learn to write in multiple contexts: in the Simpson Colloquiums, in general education courses, in courses for their majors, and in elective courses. Effective writing is also a skill they will find indispensable in their professional lives beyond the undergraduate academic setting.

Engaged citizens rely on strong writing skills, whether they are exploring and developing their own ideas, responding fairly and responsibly to the ideas and perspectives of others, or crafting the polished, compelling and persuasive expression so often necessary to shaping and creating a diverse and just community.

A student who completes a WC course will be able to...

Student Learning Objective (SLO)		Class activities directly relating to this SLO	Student work to be evaluated for this SLO
WC SLO1.	articulate an idea and formulate a thesis as appropriate to the discipline	Lecture, quizzes, labs	Tutorial on how and why to use a new web technology
WC SLO2.	identify and correct errors in grammar and/or style in written communication	Lecture, quizzes, labs	Students review each other's tutorial draft and turn in a marked-up copy
WC SLO3.	provide credible evidence to support claims and arguments in written communication	Lecture, quizzes, labs	Tutorial on how and why to use a new web technology
WC SLO4.	organize thoughts in a logical fashion in written communication	Lecture, quizzes, labs	Tutorial on how and why to use a new web technology

13.5.3 Student Learning Outcomes for the Major

CIS Major SLO #1: Apply and manage computer systems to meet business objectives.

CIS Major SLO #2: Create and manage computer systems utilizing a variety of information technologies.

CIS Major SLO #3: Design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.

13.5.4 Contact Hours and Learning Time

CIS 320 meets two times per week. Class covers 14 weeks, with one week of break, and one day off for Honor Symposium giving us a total of 25 classes. At 90 minutes per class, that's 37.5 hours of meeting time.

There are a total of 13 assignments. Each assignment should take approximately three hours of research and five hours of work. This will add up to about 104 hours of work.

Total time spent on the class should be about 141 hours.

13.6 Policies and Procedures

13.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

13.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

13.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

13.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

13.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/

CHAPTER 14

CMSC 340 Computer Networking

14.1 Course Details

- Course title:

  CMSC 340 Computer Networking

- Catalog course description:

  This course of study in computer networks concentrates on typical hardware interfaces, programming methods, and communications protocols. Topics considered in detail include electrical interfaces, data transmission, protocol stacks, data link protocols, local area networks, wide area networks, internetworking, transport protocols, application support, firewalls, virus scanning, and virtual private networks. Prerequisite: Computer Science 150 Fundamentals of Computing I and Computer Science 265 Computer Organization. Recommended: Computer Science 155 Fundamentals of Computing II. Four credits.

- Textbook: Will be provided on-line.

14.2 Instructor

- Instructor Name: Paul Vincent Craven
- Office hours are by appointment.
  - In person. My office is in the Carver Science building, second floor. Room 333:
    - https://calendly.com/paul-craven/in-person-15-minute-meeting
    - https://calendly.com/paul-craven/in-person-30-minute-meeting
  - Over Zoom
    - https://calendly.com/paul-craven/zoom-15-minute-meeting
    - https://calendly.com/paul-craven/zoom-30-minute-meeting
  - In McNeill 110 (Make sure lab is open)

        * https://calendly.com/paul-craven/mcneill-110-30-minute-meeting

- Instructor Contact Information:
  - E-mail: paul.craven@simpson.edu <- Best way to contact me.
    * When sending e-mail questions, please include your code (attach it or link to GitHub), and the error you are getting. If you don't want to do this, please make an appointment instead.
  - Office: Carver 333 (Second floor, Carver Science Building) Feel free to drop in.
  - Phone: 515-961-1834 <- I rarely answer this.

14.3 Schedule

Class meets Tuesday/Thursday from 9:40 am until 11:20 am.

14.3.1 Academic Calendar

Spring Semester 2021	Date
Classes Begin	Jan-19
Last Day to Add/Drop	Jan-25
No Class	Feb 26
Mid-Term Date	Mar-08
Mid-Term Grades Due	Feb-10
Last Day to Withdraw	Mar-26
Easter Recess	Apr-05
Honors Convocation Ceremony	Apr-21
Research Symposium (No Class)	Apr-22
Last Day of Class	Apr-26
College Reading Day	Apr-29
Spring Final Exam Week	Apr 27-29
Commencement	May-01
All Spring Grades Due	May-04

14.3.2 Class Calendar

I plan on keeping to the due dates on the assignments. The exact topics of what we cover in class will be adjusted as needed.

Date	Class	Topic	Assignment Due	Points
Tue, Jan 19	1	Layer 1 - Class introduction, syllabus, Chapter 1 (whole thing), Chapter 3 Getting started with the Raspberry Pi in class		
Thu, Jan 21	2	Layer 1 - Chapter 2, clone example repository, work in class		
Tue, Jan 26	3	Layer 1 - Chapter 2 - work in class	Quiz 1 due	15
Thu, Jan 28	4	Layer 1		
Tue, Feb 02	5	Workday	Layer 1 - Physical - due	100

Continued on next page

Table 1 – continued from previous page

Date	Class	Topic	Assignment Due	Points
Thu, Feb 04	6	Layer 2		
Tue, Feb 09	7	Layer 2		
Thu, Feb 11	8	Layer 2	Quiz 2 due	15
Tue, Feb 16	9	Layer 2		
Thu, Feb 18	10	Workday	Layer 2 - Data - due	100
Tue, Feb 23	11	Layer 3		
Thu, Feb 25	12	Layer 3		
Tue, Mar 02	13	Layer 3	Quiz 3 due	15
Thu, Mar 04	14	Layer 3		
Tue, Mar 09	15	Workday	Layer 3 - Networking - due	100
Thu, Mar 11	16	Layer 4		
Tue, Mar 16	17	Layer 4		
Thu, Mar 18	18	Layer 4	Quiz 4 due	15
Tue, Mar 23	19	Layer 4		
Thu, Mar 25	20	Workday	Layer 4 - Transport - due	100
Tue, Mar 30	21	Layer 5		
Thu, Apr 01	22	Layer 5		
Tue, Apr 06	23	Layer 5	Quiz 5 due	15
Thu, Apr 08	24	Layer 5		
Tue, Apr 13	25	Workday	Layer 5 - Session - due	100
Thu, Apr 15	26	Layer 6		
Tue, Apr 20	27	Layer 6		
Thu, Apr 22	No class	Symposium day		15
Tue, Apr 27	No class	Final exam week	Quiz 6 due	
Thu, Apr 29	No class	Final exam week	Layer 6 - Presentation - due	100
			Grading	
			Total points	690
	A		93%	642
	A-		90%	621
	B+		87%	601
	B		83%	573
	B-		80%	552
	C+		77%	532
	C		73%	504
	C-		70%	483
	D+		67%	463
	D		63%	435
	D-		60%	414

14.4 Student Assessment

14.4.1 Assignment Submission

There are six assignments. A student's grade for each assignment will depend on how many 'mini-projects' were completed.

Each mini-project of an assignment must be checked off in-person or via video conference. You should then submit which steps were completed via Moodle, and the I will verify a match between my records and yours. If there is a discrepancy, I'll contact you to make sure you get the proper grade.

Quizzes will be done on-line. Open book. You can ask other students and even the instructor.

14.4.2 Grading

Grades will be calculated on a percent scale. The percentage is calculated by total points earned, divided by total points possible. If there is an attendance penalty, then that is subtracted next.

Danger: Simpson's Scholar/Moodle site shows can show the wrong grade, for the two reasons below.

- Scholar will not show any attendance penalty. You can look up your attendance on Scholar.
- If there is a missing grade that hasn't been set at zero, then Scholar will not show that in the average. For example, if there are 10 assignments, each worth 100 points, but one is missing, Scholar will show your average as 100 instead of 90. I do try to go back and enter zero on missing assignments so Scholar shows the correct grade, but sometimes that isn't practical.

If you want to calculate your grade, total up your points, divide by the total possible. Then take into account any attendance policy penalty. See the *attendance policy*.

Appealing an assignment grade: Please do this within a week or two of the grade being posted. Please regularly check for missing assignment grades. After final grades are posted, I'll only re-examine assignments turned in during finals. I'm not going back to look at early assignments. Turning in tech assignments can be more complex than turning in a paper, so it is critical to notice right away if you are missing a piece.

Appealing your final grade: If you believe your final grade is in error, please go through the effort of calculating the grade yourself. Total up points earned and the total points possible. Calculate the percentage. Check your attendance. Include that information when contacting the instructor.

14.4.3 Grading Scale

Grades are not rounded. For example, 92.99% is considered an A-, and 93.00% is an A.

Percent	Grade
100-93%	A
92-90%	A-
89-87%	B+
86-83%	B
82-80%	B-
79-77%	C+
76-73%	C
72-70%	C-
69-67%	D+
66-63%	D
62-60%	D-
59-0%	F

14.4.4 Late-Work/Make-up Work Policy

- All work must be turned in on-time.
- Late work is usually **not** accepted, unless approved ahead of time by the instructor. (If it is just a few minutes or hours late, you might be ok. Depends on when I check.)
- All work must be turned in by the end of the time scheduled for the class final. No extensions beyond this date/time are given unless you have a form filled out and signed for an "incomplete."
- Extra-credit / make up work is not offered.
- If you need to use the lab for doing work, make sure to understand when the lab is open. The McNeill lab is usually closed on Sunday nights, and if an assignments is due Monday morning that can be bad. Not knowing when the lab is open is not accepted as an excuse.

14.4.5 Attendance/Participation Policy

A student may miss three classes unexcused without penalty. After three unexcused absences, a student's final grade will be lowered 3% for each class missed, not including the original three. So missing five classes will be a 6% penalty on the final grade.

Excused absences are those approved by the Academic Dean, or by prior permission of the instructor. Absences for sporting event functions are normally run through Dean's office. E-mail me that you will be gone so that I can check you off as excused.

Danger: To be counted as attending class, the student must be present when the instructor takes attendance. Showing up to class 10 minutes late does not count towards attendance. Therefore continually showing up to class late can really hurt a student's grade. If a student leaving class early with prior permission will be counted as absent.

COVID-19: Absences due to Covid-19 are excused, but you need to let me know, along with health services.

14.5 Course Assessment

14.5.1 Student Learning Outcomes for the Major

CIS Major SLO #1: Apply and manage computer systems to meet business objectives.

CIS Major SLO #2: Create and manage computer systems utilizing a variety of information technologies.

CIS Major SLO #3: Design, implement, and modify normalized database systems. Graduates will also know how to maintain and manage database systems.

14.5.2 Contact Hours and Learning Time

CIS 320 meets two times per week. Class covers 14 weeks, with one week of break, and one day off for Honor Symposium giving us a total of 25 classes. At 90 minutes per class, that's 37.5 hours of meeting time.

There are a total of 13 assignments. Each assignment should take approximately three hours of research and five hours of work. This will add up to about 104 hours of work.

Total time spent on the class should be about 141 hours.

14.6 Policies and Procedures

14.6.1 Course Continuity Plan

Should the normal instructional activity on the campus be shortened or interrupted by a campus-wide closing, students will receive information from the instructor or other representative of the college about when and if the course might be continued or completed via Internet, telephone, or United States mail.

14.6.2 Academic Integrity

Simpson's Statement: In all endeavors, Simpson College expects its students to adhere to the strictest standards of honesty and integrity. In keeping with the College's mission to develop the student's critical intellectual skills, while fostering personal integrity and moral responsibility, each student is expected to abide by the Simpson College rules for academic integrity. Academic dishonesty includes (but is not limited to) any form of cheating, plagiarism, unauthorized collaboration, misreporting any absence as college-sponsored or college-sanctioned, submitting a paper written in whole or in part by someone else, or submitting a paper that was previously submitted in whole or in substantial part for another class without prior permission. If the student has any questions about whether any action would constitute academic dishonesty, it is imperative that he or she consult the instructor before taking the action. **All cases of substantiated academic dishonesty must be reported to the student's academic advisor and the Dean for Academic Affairs.** For further guidance on these rules and their sanctions, please see the college catalog.

My addition: Students are strongly encouraged to work with one another on homework; however, blatant copying of assignments will be considered cheating.

If I get two assignments that are the same thing, both people will get zeros. Guard your homework carefully, so it is not used as a source for cheating. Don't e-mail it to a friend so they can 'use it to learn' or 'as a template'. Don't allow someone to simply read off what you have on your computer screen. By allowing someone to cheat, that will allow the person to get behind in what they understand, and they will never catch up.

A student caught cheating will either get a zero for the assignment, have his/her over-all letter grade reduced, or be flunked from the course. Cheating students may be required to do extra work.

The instructor keeps a database of prior assignments and assignments commonly found on the Internet. The instructor will periodically run scans to look for duplicate assignments. We catch students cheating every. single. year. Don't do it.

Regardless, cheating is like paying for a gym membership, and then sending someone else to work out for you. It doesn't make sense. You aren't going to get stronger that way.

14.6.3 Accommodations for Students with Accessibility Needs

I want everyone in this class to be successful. If you have a physical, sensory, learning, or psychological disability that can interfere with your learning, I want you to receive the accommodations to which you are entitled by law. In order for me to do provide accommodations to a student, the student's disability must be documented with the Student Accessibility Office. I cannot assist a student with accommodations that I don't know are needed, so if you need something, please make sure that you either contact me or that you ask Simpson's Student Accessibility Coordinator, to do so on your behalf. If you have any further questions on the policies and services for students with disabilities, please refer to the academic catalog or go to http://simpson.edu/academics/student-accessibility/

14.6.4 Inclusive Explanation Statement

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs, and values expressed by students and staff involved in this course. We support Simpson's

commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

14.6.5 Sexual and Relationship Misconduct

Simpson College strives to create an environment free from sexual or relationship misconduct of any kind; and in which those who have experienced sexual misconduct get the help and support they need. Simpson's Sexual and Relationship Misconduct Policy outlines expectations the college has students and employees, including faculty. In order to do all that we can to maintain a safe campus community, and in compliance with Federal law, all employees of the college are expected to report knowledge of alleged sexual misconduct to the Title IX Coordinator. Therefore, if you reveal to me, in conversation, writing, class discussion, or in any other manner, that you have experienced sexual misconduct it is my obligation to share that information with the Title IX Coordinator on our campus. Please know that if this is a step that needs to be taken, I will do my best to involve you in that process so that you know what to expect as a result of the communication with the Title IX Coordinator. To learn more about the expectations the college has of you with respect to sexual misconduct, you can find the full policy here:

http://simpson.edu/sexual-and-relationship-misconduct-policy/