VCU College of Engineering

Mechanical and Nuclear Engineering

CS 25-309-Pumphouse

Team Contract

Prepared for

Mac Wood

Friends of the Pump House

By

Cesar Colato, Mohammad Garada, Zemas Zeamnauel, Nicholas Casey Date: 9/5/24

Contents

Step 1: Get to Know One Another. Gather Basic Information.

Task: This initial time together is important to form a strong team dynamic and get to know each other more as people outside of class time. Consider ways to develop positive working relationships with others, while remaining open and personal. Learn each other's strengths and discuss good/bad team experiences. This is also a good opportunity to start to better understand each other's communication and working

styles.

Team Member Name	Strengths each member bring to the group	Other Info	Contact Info
Cesar Colato	Organization and Communication	Enjoy working with others and always open to learning	colatocd@vcu.edu 703-338-9023 discord: pinacolato
Zemas Zeamanuel	Time management and conflict resolution	Experience with blender, always willing to learn what's needed for the sake of the project	zeamanuelz@vcu.edu 571-992-7217 discord: zzemass

Mohammad Garada

optimized.

			caseynv@vcu.edu
Nicholas Casey Problem-solving and Creativity	Communication and Diligence I like adding in creative ideas in order to make what we are working on to be more	Experience 3-D modeling with Unreal Engine 5 garadam@vcu.edu 571-344-2920 discord: garada9378	804-297-2058 discord: nocolous

Team Contract VCU College of Engineering 3

Other Stakeholders	Notes	Contact Info

Sponsor	Sponsor Organization: Friends of the Pump House Sponsor Name: Mac Wood	macwood1995@gmail.com
Faculty Advisor	John Leonard	jdleonard@vcu.edu

Team Contract VCU College of Engineering 4

Step 2: Team Culture. Clarify the Group's Purpose and Culture Goals.

Task: Discuss how each team member wants to be treated to encourage them to make valuable contributions to the group and how each team member would like to feel recognized for their efforts. Discuss how the team will foster an environment where each team member feels they are accountable for their actions and the way they contribute to the project. These are your Culture Goals (left column). How do the students demonstrate these culture goals? These are your Actions (middle column). Finally, how do students deviate from the team's culture goals? What are ways that other team members can notice when that culture goal is no longer being honored in team dynamics? These are your Warning Signs (right column).

Resources: More information and an example Team Culture can be found in the Biodesign Student Guide "Intentional Teamwork" page (webpage | PDF)

Culture Goals	Actions	Warning Signs
Being on time to every meeting	*- Set up meetings in iMessage group chat or discord* *- Send reminder message day of meeting hours before*	*- Student misses first meeting, warning is granted* *- Student misses meetings afterwards – issue is brought up with faculty advisor*
Informing the group of any delays in completing assignments		*other's project responsibilities* *- Set reasonable deadlines and note when an extension is needed*
	Engaging in Communication frequently *- Stay up to date with each*	*- frequent check ins with*

team members on progression
- Asking for help when help is needed
- Student shows up for weekly meeting with no considerable work done - issue is brought up with faculty advisor

- student is not actively messaging, emailing, or texting other team members - group will get

together to discuss why

-continued ghosting = issue is brought up with faculty advisor

Team Contract VCU College of Engineering 5

Step 3: Time Commitments, Meeting Structure, and Communication

Task: Discuss the anticipated time commitments for the group project. Consider the following questions (don't answer these questions in the box below):

- What are reasonable time commitments for everyone to invest in this project? ● What other activities and commitments do group members have in their lives? ● How will we communicate with each other?
- When will we meet as a team? Where will we meet? How Often?
- Who will run the meetings? Will there be an assigned team leader or scribe? Does that position rotate or will the same person take on that role for the duration of the project?

Required: How often you will meet with your faculty advisor advisor, where you will meet, and how the meetings will be conducted. Who arranges these meetings?
See examples below.

Meeting Participants	Frequency Dates and Times / Locations	Meeting Goals Responsible Party
Students Only	*As Needed, On Discord Voice Channel*	*Update group on day-to-day challenges and accomplishments (Cesar will record these for the weekly progress reports and meetings with advisor)*

Students Only	We will all work either individually or together on tasks and split work where needed, either in a discord call or in the Engineering building. Will working on it whenever we have time throughout the week	Actively work on project (Cesar will document these meetings by taking photos of whiteboards, physical prototypes, etc, then post on Discord and update Capstone Report)
Students + Faculty advisor	Schedule meetings in Advisor's of ice when everyone's schedules align	Update faculty advisor and get answers to our questions (Nicholas will scribe; Cesar will create meeting agenda)
Project Sponsor (Mac Wood)	Every 2-3 weeks, usually on Mondays If sponsor is available, we'll figure out Zoom or in person details	Update project sponsor and make sure we are on the right track (Nicholas will scribe; Cesar will create meeting agenda; we will all present prototype so far)

Team Contract VCU College of Engineering 6

	If not, then we'll update the sponsor via email/discord.	

Step 4: Determine Individual Roles and Responsibilities

Task: As part of the Capstone Team experience, each member will take on a leadership role, *in addition to* contributing to the overall weekly action items for the project. Some common leadership roles for Capstone projects are listed below. Other roles may be assigned with approval of your faculty advisor as deemed fit for the project. For the entirety of the project, you should communicate progress to your advisor specifically with regard to your role.

● **Before meeting with your team**, take some time to ask yourself: what is my "natural" role in this group (strengths)? How can I use this experience to help me grow and develop more? ● **As a group,** discuss the various tasks needed for the project and role preferences. Then assign roles in the table on the next page. Try to create a team dynamic that is fair and equitable, while promoting the strengths of each member.

Communication Leaders

Suggested: Assign a team member to be the primary contact <u>for the client/sponsor.</u> This person will schedule meetings, send updates, and ensure deliverables are met.

Suggested: Assign a team member to be the primary contact <u>for faculty advisor.</u> This person will schedule meetings, send updates, and ensure deliverables are met.

Common Leadership Roles for Capstone

1. **Project Manager:** Manages all tasks; develops overall schedule for project; writes agendas and runs meetings; reviews and monitors individual action items; creates an environment where team members are respected, take risks and feel safe expressing their ideas.
   Required: On Edusourced, under the Team tab, make sure that this student is assigned the Project Manager role. This is required so that Capstone program staff can easily identify a single contact person, especially for items like Purchasing and Receiving project supplies.
2. **Logistics Manager:** coordinates all internal and external interactions; lead in establishing contact within and outside of organization, following up on communication of commitments, obtaining information for the team; documents meeting minutes; manages facility and resource usage.
3. **Financial Manager:** researches/benchmarks technical purchases and acquisitions; conducts pricing analysis and budget justifications on proposed purchases; carries out team purchase requests; monitors team budget.
4. **Systems Engineer:** analyzes Client initial design specification and leads establishment of product specifications; monitors, coordinates and manages integration of sub-systems in the prototype; develops and recommends system architecture and manages product interfaces.
5. **Test Engineer:** oversees experimental design, test plan, procedures and data analysis; acquires data acquisition equipment and any necessary software; establishes test protocols and schedules;

Team Contract VCU College of Engineering 7
   oversees statistical analysis of results; leads presentation of experimental finding and resulting recommendations.
6. **Manufacturing Engineer:** coordinates all fabrication required to meet final prototype requirements; oversees that all engineering drawings meet the requirements of machine shop or vendor; reviews designs to ensure design for manufacturing; determines realistic timing for fabrication and quality; develops schedule for all manufacturing.

Team Member	*Role(s)*	*Responsibilities*

Cesar Colato	Project Manager	✔ *Send reminders for upcoming assignments on Discord/iMessage* ✔ *Make sure everyone understands what is going on with the project regarding details and implementation* ✔ *Keep records of meetings and make plans based on what was discussed and create schedule* ✔ *Work on file optimization for Unity project and local multiplayer abilities*
Zemas Zeamanuel	Systems Engineer	- Analyze the client's initial design and define what the final product should achieve. - Develop a blueprint for how different parts of the product will fit and work together. - Ensure that all the different components communicate and work smoothly together. - work on the functioning kiosks for unity scenery
Mohammad Garada	Logistics Manager	- Resource management to ensure we have all the necessary tools needed. - Coordinate tasks based on team member's strengths and weaknesses - Budget management - help with file optimization and multiplayer abilities on unity project
Nicholas Casey	Test Engineer	- Establish protocols for test cases and schedules for testing - Obtain any necessary software or equipment needed - Supervise test planning, design, and procedures - work on lighting for unity scene

Team Contract VCU College of Engineering 8

Step 5: Agree to the above team contract

Team Member: Signature: Cesar Colato _____ Team Member:

Signature: _Mohammad Garada_ Team Member: Signature: _Zemas

Zeamanuel_ Team Member: Signature: _Nicholas

*Casey_*