

# COSMIC Capstone Challenge (C3)

## Guidelines for excelling in C3 during a single semester

Critical Success Factors: Before diving into the C3, teams must ensure these foundational elements are in place:

### Team Requirements

- **High Motivation:** Every team member must be fully committed and engaged
- **Team Size:** It can range, but everyone must be held accountable and have work to do
- **Accountability:** All members must complete their assigned tasks on time
- **Communication:** Constant, early communication about challenges or delays

### Support Structure

- **Hands-On Professor:** Must be engaged from Day 1, maintain schedule, and hold weekly meetings
- **Industry Mentor:** Available, responsive, and willing to provide industry perspective
- **Professor-Mentor Alignment:** Both advisors should communicate regularly and stay on the same page

### Suggested Meeting Structure

Establish three types of weekly/bi-weekly meetings:

1. **Student Team Meeting** (in-person) - internal coordination
2. **Student Team Meeting** (online) - additional check-in/work session
3. **Advisor Meeting** - present progress to professor and mentor

### Best Practices Throughout the Semester/Full-Year

#### Accountability & Communication

- Maintain shared document where everyone logs weekly tasks and completion status
- Team lead ensures everyone is on track
- Communicate early if unable to complete a task
- Support teammates who fall behind (and notify advisor early if help required)

#### Meeting Effectiveness

- Come prepared for every meeting

- Present progress (show updated designs), not just status updates (reporting an updated design)
- Be ready for critical feedback from advisors
- Document action items and decisions

### **Professor Responsibilities**

- Be hands-on and present from Day 1
- Maintain strict schedule and deadlines
- Recommend communicating with mentor to stay aligned
- Push students when needed, but guide rather than direct
- Help students avoid rabbit holes and stay focused

### **Mentor Responsibilities**

- Be available and responsive
- Provide industry perspective on decisions
- Guide students when stuck (offer ideas, not solutions)
- Connect students with helpful resources/contacts
- Give critical feedback on technical work and presentations
- Meet weekly with team
- Coordinate with professor on team progress

### **Work Distribution**

- Divide tasks based on individual strengths
- Everyone contributes equally (4-10 hours per week)
- Cross-collaborate when someone needs help
- No single point of failure where one person falling behind leads to project failure

### **Documentation Philosophy**

- Start as early as possible
- Treat as continuous work in progress
- Iterate based on weekly feedback
- Don't wait until the end to write