### Syllabus for CAPSTONE 101: Advanced Project Development

Course Code: CAPSTONE 101  
Semester: Spring 2028  
Duration: February 9th, 2028 – May 20th, 2028  
Course Description:  
This course is designed to provide students with hands-on experience in project development, teamwork, and problem-solving. Students will work in groups of 6 or 7 to complete a capstone project selected from a list of 20 options. Each group will be supervised by a Teaching Assistant (TA), and every 5 TAs will be overseen by a supervising instructor. The course emphasizes collaboration, critical thinking, and delivering a high-quality final product.

### Course Objectives:

1. Develop teamwork and project management skills.
2. Apply theoretical knowledge to real-world problems.
3. Deliver a functional product or solution by the end of the semester.
4. Present and defend the project to peers and faculty.

### Course Structure:

* Group Formation: Students will be grouped into teams of 6 or 7.
* Project Selection: Each group will choose one project from the provided list.
* Milestones: 6 milestones will guide the project development process.
* Supervision: Each group will be supervised by a TA, who will report to a supervising instructor.

### Milestones:

1. Project Proposal (Due: Feb 23rd, 2028): Define the problem, objectives, and initial plan.
2. Research and Design (Due: Mar 8th, 2028): Conduct research and create a detailed design document.
3. Prototype Development (Due: Mar 29th, 2028): Build a working prototype.
4. Testing and Refinement (Due: Apr 12th, 2028): Test the prototype and refine based on feedback.
5. Final Product Development (Due: Apr 26th, 2028): Complete the final product.
6. Presentation and Documentation (Due: May 10th, 2028): Prepare a presentation and final report.

### Evaluation:

* Milestone Submissions: 40%
* Final Product: 30%
* Presentation and Documentation: 20%
* Peer and TA Evaluation: 10%

### Supervising Instructors:

1. Dr. Emily Carter
   * Email: emily.carter@university.edu
   * Phone: (555) 123-4567
   * Background: PhD in Computer Science, specializes in AI and machine learning.
2. Dr. Michael Rodriguez
   * Email: michael.rodriguez@university.edu
   * Phone: (555) 234-5678
   * Background: PhD in Engineering, focuses on robotics and automation.
3. Dr. Sarah Thompson
   * Email: sarah.thompson@university.edu
   * Phone: (555) 345-6789
   * Background: PhD in Data Science, expertise in big data analytics.
4. Dr. James Lee
   * Email: james.lee@university.edu
   * Phone: (555) 456-7890
   * Background: PhD in Cybersecurity, specializes in network security.
5. Dr. Olivia Harris
   * Email: olivia.harris@university.edu
   * Phone: (555) 567-8901
   * Background: PhD in Environmental Science, focuses on sustainable technologies.

### Supervising TAs:

1. John Smith
   * Email: john.smith@university.edu
   * Background: MS in Computer Science, AI enthusiast.
2. Emily Davis
   * Email: emily.davis@university.edu
   * Background: MS in Robotics, experienced in automation projects.
3. Daniel Brown
   * Email: daniel.brown@university.edu
   * Background: MS in Data Science, skilled in data visualization.
4. Sophia Martinez
   * Email: sophia.martinez@university.edu
   * Background: MS in Cybersecurity, expertise in ethical hacking.
5. William Taylor
   * Email: william.taylor@university.edu
   * Background: MS in Environmental Engineering, passionate about sustainability.
6. Ava Wilson
   * Email: ava.wilson@university.edu
   * Background: MS in Software Engineering, experienced in full-stack development.
7. Liam Anderson
   * Email: liam.anderson@university.edu
   * Background: MS in AI, specializes in natural language processing.
8. Mia Thomas
   * Email: mia.thomas@university.edu
   * Background: MS in Human-Computer Interaction, focuses on UX design.
9. Noah Garcia
   * Email: noah.garcia@university.edu
   * Background: MS in IoT, experienced in smart device development.
10. Charlotte Hernandez
    * Email: charlotte.hernandez@university.edu
    * Background: MS in Game Development, skilled in Unity and Unreal Engine.

### Additional Information:

* Office hours for instructors and TAs will be posted on the course website.
* All communication will be conducted via the university’s learning management system (LMS).
* Late submissions will incur a penalty of 10% per day.