AVIATION CAPSTONE PROGRAM

APPLYING STUDENT KNOWLEDGE TO REAL WORLD INDUSTRY NEEDS

Our aviation programs offer capstone design opportunities to aviation students as a requirement for graduation. The Center for Aviation Studies (CAS) provides support and fosters coordination for capstone projects. One way the CAS executes this support is by facilitating industry sponsorship.

The aviation capstone program forms a single-semester, 3-credit hour course that features industry sponsored projects in a team environment and is open to students across all aviation disciplines. The course integrates problem solving skills and aviation best practices focused on completing projects presented by our industry partners.

AVIATION CAPSTONE COURSE

At The Ohio State University, we provide our aviation students with real-world experience to help them prepare for their careers. We assign diverse student teams to challenging, open-ended projects. Our program incorporates the following elements:

Industry Sponsorship:
Industry supplies a real-world project for the student teams to complete. Sponsors participate in project development, constraint identification, decision-making criteria, provide necessary context to the problem statement and contribute domain-specific knowledge.

Problem Solving Process:
An important step in an aviation professional’s education is to experience the problem-solving process, which includes defining the problem, generating innovative solutions, and providing documentation to implement the solution.

Professional Skills:
By applying their academic background to experiential problem-solving, students develop a number of professional skills while learning to work with a broad range of people. This enhances their competence and better prepares them to enter the workplace. Skills developed include:

- Practical, real-time problem-solving
- Professional oral and written communication
- Engineering and business ethics
- Teamwork and project management

CAPSTONE PROJECTS BENEFITS

Sponsor Benefits

- Improve overall productivity and quality
- Create new business opportunities
- Gain fresh perspectives from creative and innovative aviation students
- Gain value-added solutions
- Observe talented students as prospective employees
- Improve processes and products while reducing costs

Student Benefits

- Gain hands-on experience with real-world problems
- Apply academic knowledge to practical problem-solving
- Receive direct contact with industry professionals
- Interact with companies as prospective employers
- Learn objective thinking by working with diverse teams
MULTIDISCIPLINARY APPROACH

Students are recruited from all aviation degree programs including the Fisher College of Business, the College of Engineering and the College of Arts and Sciences. Teams are customized to meet the specific project requirements. Each team is assigned an experienced faculty advisor to facilitate their work with the sponsor’s project liaison for the duration of the semester long project. Regular interaction occurs through status review meetings, presentations and problem solution reviews to ensure successful results through all project phases.

Planning:
Establish industry partner sponsorship, define problem statements and set desired outcomes

Prior to Semester Start:
Create teams, gather information, and develop detailed resource requirements list

After Semester Start:
Brain-storm, evaluate ideas, define the problem decision making process, narrow solution ideas to those that are viable and that most effectively solve the problem statements. Select a best solution, document the research completed, develop a presentation and final report.

AVIATION AT OHIO STATE

At Ohio State’s Center for Aviation Studies, we continuously strengthen our traditional aviation programs while investing in emerging fields, thereby preparing our students for the workforce of the future.

Ohio State’s ABBI accredited Center for Aviation Studies is highly regarded as producing exceptionally prepared aviation professionals. The Center is part of Ohio State’s College of Engineering which ranks among the top 20 public engineering programs nationally and among the top five universities in industry-financed research. With more than 350 faculty members and 10,000 undergraduate and graduate students, the college is Ohio’s premier engineering school. Undergraduate students can choose from 16 different degree programs. Through our 40 research centers and laboratories, students have access to state-of-the-art facilities for hands-on research and learning.

CONTACTS US

CAS is continually looking for new industry partners to sponsor capstone projects and provide real life problems for our students to solve. If you would like more information please contact us.

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