

**IAI Engineering Major Panel**  
Course Approval Criteria  
Revised Fall 2025

An institutionally approved representative syllabus in electronic format is required by the panel for its review. Institutions should submit an actual and recent instructor syllabus which is not more than three years old. If the course is yet to be taught, a sample syllabus intended for future students is still required.

**The representative course syllabus and any additional submission materials must include:**

- **Institution Name**
- **Course prefix, number, and title**
- **Course description:** Including the full catalog course description is required. The course description should compare favorably with the proposed IAI course description.
- **Number of credit hours:** For combined lecture and lab/studio courses, please include lecture credit hours, lab/studio credit hours as well as contact hours for lecture and lab/studio components. Indicate if these are semester or quarter hours.
- **Prerequisites and co-requisites:** If prerequisites are required for a course, it is preferred that the course prefix, course number, course name, and when IAI approved, the IAI code, are included in the submitted syllabus. Important note: as a rule, general education (GECC) courses in IAI should not have prerequisites. There are a few exceptions to this rule for sequences such as written composition and calculus; see panel specific information. Major courses may have prerequisites as appropriate. Co-requisite courses should show the credit hour breakdown between the two courses.
- **Textbooks, additional readings, additional course materials:** Please note if different resources are required for different delivery modes. Course materials should reflect content outcomes and requirements, and should be recently produced. For published texts, please include author, title, edition, date of publication, publisher, and the ISBN. If the course utilizes online or OER materials, please include an active hyperlink; hyperlinks cannot be embedded in the LMS nor be blocked by a password because the panel needs to have full access to the resource.
- **Delivery mode:** traditional/nontraditional, in-person/online/hybrid, etc.
- **Course Objectives:** The course objectives should clearly support the course description.
- **Assignment descriptions:** Please include a detailed description of assignments, readings, projects, etc. Assignment details should be clearly evident and referenced, and show connection to the course learning objectives. Assignments should demonstrate the rigor and scope of the course.
- **Methods of evaluating student learning:** The syllabus should state clearly how learning outcomes will be assessed, such as through objective/subjective examinations, quizzes, written assignments, oral presentations, projects, etc.
- **Grading scale and assignment weighting:** Please provide a grading scale and indicate the relative weight of assignments or evaluation categories (e.g., exams, essays, projects, etc.).
- **Detailed course outline, daily/weekly/hourly schedule:** A detailed topical outline and weekly schedule that goes beyond chapter numbers and titles from a textbook (or select readings) must be included and it should provide specific details of topics being presented in class. This may include assignments, readings, projects, etc. as appropriate. This could be done using a few bullet points or a couple of sentences. This level of detail is also appropriate for the lab/studio outline in courses that contain a lab or studio component. The lab/studio outline should include similar information but also detail the tools, materials, equipment, and instruments being used and the outcomes or topics that the students will be exploring.

**General Coding Practice:**

A course can only be assigned to one IAI code/description per panel. Institutions should be clear and careful in determining which IAI code is identified for any syllabus submitted for approval. The institution should also ensure that the course meets the minimum semester credit hour requirement included with the IAI course description.

A student may “count” only one course per code in fulfilling transfer requirements, even though an institution may assign more than one course to a code. In some cases, however, students at schools on a quarter calendar may need to complete two courses to equate to a one-semester course. An equivalency in this circumstance would be three quarter-credits equals two semester credit hours and five quarter-credits equal three semester credit hours.

**Panel Specific Requirements:**

Note: Please include a detailed topical outline and weekly schedule, including approximate hours per topic.

Note: Include the description of any design projects, team (required) and individual if included in course content, as well as any presentation assignments for **EGR 941 Engineering Design Graphics/CAD** or if included in the course you are submitting.

Note: If there is a lab associated with the course, please include lab outline, objectives, and description.

**Common Reasons Courses Are Not Approved**

- Course does not match description.
- Course does not match description for IAI designation (EGR 941 Engineering Design Graphics/CAD is a common course that does not match IAI descriptor, and EGR 943 Dynamics-1/3rd of course content is not dedicated to rigid body related content).
- Course has inappropriate prerequisites.
- Topical outline does not have enough detail.
- Lab content is not described in sufficient detail.

## **Engineering Major Panel Course Syllabus Checklist**

### **☐ Course Description**

- Including the full catalog course description is required. The course description should compare favorably with the proposed IAI course description.

### **☐ Prerequisites**

- The panel must review both courses in the sequence in order to accept the first course as a prerequisite.

### **☐ Textbooks/Learning Resources**

- Please note if different resources are required for different delivery modes. Course materials should reflect content outcomes and requirements, and should be recently produced. For published texts, please include author, title, edition, date of publication, publisher, and the ISBN. If the course utilizes online or OER materials, please include an active hyperlink; hyperlinks cannot be embedded in the LMS nor be blocked by a password because the panel needs to have full access to the resource.

### **☐ Course Objectives**

- The course goals are expected.

### **☐ Student Outcomes**

- Student outcomes must be included to provide additional evidence that the course focus is aligned with the IAI description and should be stated in such a manner that it is clear how one would assess them.

### **☐ Methods of Evaluation**

- The syllabus should state clearly how learning outcomes will be assessed, such as through objective/subjective examinations, quizzes, written assignments, oral presentations, projects, etc.

### **☐ Grading Criteria and Scale**

- The points or percentages attached to course work are required. Indicate how grades are determined.

### **☐ Detailed Topical Outline (Daily/Weekly Schedule)**

- The Engineering Major Panel will review the schedule for evidence of the content of the course for a full semester or equivalent.
- A detailed topical outline and weekly schedule that goes beyond chapter numbers and titles from a textbook must be included and it should provide specific details of topics being presented in class as well as assignments, readings, projects, etc. as appropriate. This level of detail is also appropriate for the lab/studio outline in courses that contain a lab or studio component. The lab/studio outline should include similar information but also detail the tools, materials, equipment, and instruments being used and the outcomes or topics that the students will be exploring.