

# PHYSICS MAJOR PANEL (v 2.3 2018-Fall)

## Course Approval Criteria

Course application materials must include a recent representative syllabus and any additional explanatory documents necessary to clearly document all the following information.

- IAI course code requested
- Course prefix, number and title, number of credit hours, and catalog description
- Prerequisites and co-requisites: Course prefixes, numbers and course titles
- If a stand-alone lab course syllabus is being submitted for IAI lab/lecture course credit, then the syllabus and relevant information of the co-requisite lecture must be duplicated in the lab submission.
- A Detailed Lecture Course Outline and Daily or weekly schedule of material to be covered with one or two sentence description (**chapter name/section headings alone should not be submitted**)
- Objectives or outcomes or goals
- Delivery Modes for all offered lecture and lab sections (online, hybrid, face-to-face) paying particular attention to document existence of lab sections with different delivery modes
- List Textbook(s), learning resources, lab manuals and distinguish if different books or manuals are used for different delivery modes. Texts reflect and support writing, speaking, or appropriate course outcomes and requirements. As institutions pursue the opportunity to expand into online/open resource electronic text material, the panel has sought to provide some necessary guidance on citing these learning resources in submitted syllabi and documents. If any online reading or resource materials are used, provide accessible evidence which may be a complete working url or bibliographic citation. This site/resource must be active, working, and viewable by the panel. Active hyperlinks are acceptable but cannot be embedded in an online learning system.
- 3 representative labs from the lab manuals for custom lab manuals.
- Approximate number of sections offered yearly per each delivery mode
- PER each LAB module - paying particular attention to documenting differences or similarities in actual activities used in hybrid or on-line sections to face-to-face sections.
  - Short descriptions of all lab activities/modules (not just titles) should be included for all delivery modes (e.g., face-to-face, hybrid, online)
  - Document contact hours per lab (distinguishing it from attached recitation time, for example)
  - Document each lab module's format (e.g., hands-on, virtual, software simulations of hands-on labs, field trips, programming)
  - Document if differences exist in lab modules and lab module format for different delivery modes.

## General Coding Practice

- A course can only be assigned to one code/description within this panel. However,

multiple courses from the same institution may be assigned the same code/description.

- A student may “count” only one course per code in fulfilling major requirements.

### **Lab course submission documentation details**

Lab sheet (tabular format) must be included that documents each lab module/activity paying particular attention to activity format (e.g., hands-on, virtual, other activity) and documents if sections with different delivery modes (e.g., face-to-face, on-line, hybrid) use different formats or activities.

- **Lab manual:** Lab sheet table must list the title, author, and publication date of the lab manual used. If different lab materials are used for different delivery modes, then the information relevant to each lab manual should be included and documented.
- **Custom Lab Manuals:** If the lab manual was created by the institution or is custom-published, then the panel requires three representative sample labs modules be submitted.
- **Descriptions of labs:** Descriptions of all lab activities (not just titles) should be included for all delivery modes (e.g., face-to-face and online and hybrid). Description of the labs should include the time spent on each lab as distinct from non-lab related activities such as recitation. The type of activity (e.g. hands-on, virtual, computer simulation, field trip, etc) should be made clear from the lab activity description and also denoted in a separate column.
- ***No lab course will be approved if the majority of course's lab modules consist of virtual labs, field trips, multimedia and similar activities.***

### **Common Reasons Courses Are Not Approved**

- Course does not match description for IAI designation
- Topical outline does not have enough detail.
- Information relevant to assess Lecture was not included within a lecture/lab course submission
- Lab activities are not described in sufficient detail.
- If a custom laboratory manual is used, 3 examples must be submitted
- Laboratory contact hours do not meet the IAI panel's requirements.
- Lab sheet/content is inadequate

**All materials submitted for panel review must be recent and representative.**

**Syllabus Checklist follows on separate page.**

## **PHYSICS MAJOR PANEL**

### **Course Syllabus Checklist**

- **Course Description**
  - A complete description for this course is required; a catalog description may be substituted if it is sufficiently informative. The course description should compare favorably to the description given on the iTransfer website. It should include prerequisites and corequisites information.
  
- **Institutional or instructor evidence of reflection on teaching excellence**
  - Listing of Objectives or outcomes or goals
  
- **Topical Outline (Daily/Weekly Schedule)**
  - The Physics Major Advisory Committee will review the schedule for evidence of the content of the course for a full semester or equivalent. Provide detailed outlines of all topics, assignments and activities.
  - Do not list simply, 'Chapter 1, Chapter 2" etc. Listing the chapter titles from the published text is not sufficient either. More detail is required.
  - A lab weekly lab schedule including a concise description of each laboratory experience is required including equipment/instrumentation used. In addition, the panel requests an indication if any non "hands-on" lab experiences or instructional methodologies are used (e.g. web, videotape)
  
- **Laboratory Contact Hours**
  - During the 30 hours of lab time, at least 12, 2-hour experiments (labs) must be completed. No more than 1/3 of the labs may be virtual.
  
- **Textbooks**
  - The choice of text is required and may provide evidence of course content and focus. The author and date of publication of text is required.
  - If there are supplemental texts that will be used, these should also be listed.
  - Texts reflect and support writing or speaking outcomes and requirements.
  - As institutions pursue the opportunity to expand into online/open resource electronic text material, the panel has sought to provide some necessary guidance on citing these learning resources in submitted syllabi and documents. If any online reading or resource materials are used, provide accessible evidence which may be a complete working url or bibliographic citation. This site/resource must be active, working, and viewable by the panel. Active hyperlinks are acceptable but cannot be embedded in an online learning system.
  
- **Date of Preparation of the Syllabus**
  - The submitted syllabus is required to have date of preparation and the semester for which it was written.