

Course Syllabus

Southeast Missouri State University

Department of Physics

Course No. EP411-413

Course Title: Industrial Internship in Physics

New Course: Spring, 1999

I. Catalog Description:

A supervised learning and work experience in applied physics which enhances the student's understanding of the applications of physical principles to problems in academic and industrial environments. On demand. (1-3)

II. Prerequisite(s):

- A. Students must have completed at least 45 hours of college credit with a minimum of 2.5 cumulative grade point average
- B. Students must have completed at least 15 credit hours in Physics or Engineering Physics (PH, EP)
- C. Approval of Faculty Supervisor.

III. Purposes or Objectives of the Course:

- A. To provide students with an opportunity to earn college credit for academically related and professionally relevant learning experience gained while serving in a professional or pre-professional capacity in an academic or industrial environment.
- B. To provide students with experiences that will enhance their understanding of the applications physical principles as they relate to career responsibilities.
- C. To provide students with the opportunity to learn and interact with experts in the professional community of their chosen career field.
- D. To provide students with an opportunity to gain entry-level experience and training that is difficult to gain in a class room setting while completing their degree.
- E. To prepare the students to enter the workforce as competent, well-informed professionals.

IV. Expectation of Students:

- A. Students are expected to fulfill the responsibilities as outlined in the 'Guidelines for the Establishment and Operation of Academic Internship Programs' (University Handbook, **Error! Bookmark not defined.** updated Aug. 15, 1997) appended as an integral component of this syllabus.
- B. In consultation with the department chairperson, complete the written agreement indicating the intention, purpose and objectives of the internship.
- C. Maintain a working log of experiences that would form the basis of a periodic report/progress report as required in the written agreement.
- D. Participate in planned conferences, seminars, workshops, classes or any other channels of information exchange that would enhance the internship experience and learning.
- E. Provide the department chairperson and the advisor with a summary of how the objectives are being attained during the semester.
- F. Prepare a final report as specified by the department chairperson.

V. Course content or Outline:

Once the student has been approved for the internship program, he/she will complete an internship agreement with the physics department. This agreement will define the nature and the extent of the internship - duration, salary, work schedule, and expectations. This agreement must be filed with the internship coordinator and a copy should also be given to the department chairperson.

VI. Textbook(s) and Other Materials/Equipment:

Textbook or other resource materials will be specified in the initial agreement. The student will be provided with necessary equipment/materials/lab manuals etc. required for the successful completion of the internship duties that are expected prior to the beginning of the internship experience.

VII. Basis of Student Evaluation:

The chairperson will design and implement, in consultation with the advisor, the necessary forms and/or instruments for the evaluation of each intern based on the nature of the activities pertaining to the particular internship experience. This will also include the final report as specified by the department chairperson.

Attachment: (From Faculty Handbook: 'Guidelines for the Establishment and Operation of Academic Internship Programs' (University Handbook, updated Aug. 15, 1997).

Revised, July 1992

Updated August 15, 1997

Guidelines for the Establishment and Operation of Academic Internship Programs

The academic internship is a viable extension of the formal academic setting that affords students an opportunity to gain valuable professional experiences and to ensure that these are interfaced with the learning objectives in the student's major area of study. As a learning alternative, the internship provides career-related experiences that build upon and extend the more formal student experiences on campus.

This joint educational venture requires close cooperation between the various campus constituencies involved in the program and the agencies, organizations, or businesses associated with the program. Colleges and departments have specific responsibilities in terms of ensuring quality, academic standards, and consistency of operation. Faculty members assume various roles of supervising students, maintaining relations with professional supervisors, and ensuring effective administration of the program. Students assume responsibility for achieving the appropriate learning outcomes while working under the close supervision of the faculty member and one or more recognized professionals in the work setting.

Basic Definition

An academic internship affords the student a unique opportunity to combine formal learning experiences with the professional work setting. Internships are planned experiences that are approved prior to enrollment for credit. Internship programs may be established for between three and fifteen semester hours of credit. As a normal guide, it is expected that for three hours of credit, the student would be employed in a supervised learning experience for at least 120 hours spread over the academic session. While the number of hours provide the basis for a set time frame, the emphasis throughout the internship is on the quality of the planned learning experiences. To ensure that the internship is a meaningful learning experience requires clarity in process, consistency in standards, and shared responsibilities among various constituencies. To assist in this process, the following guidelines are utilized.

1. College Responsibilities
 - a. The internship program should be implemented and maintained in a manner consistent with the guidelines outlined in this document.
 - b. Regular curricular processes should be followed for the establishment and review of internship programs.
 - c. Assurances should be made that the internship program is a natural extension of the desired learning outcomes appropriate to the major.
 - d. Assurances should be made that the internship program is properly administered and that appropriate understandings have been developed with the cooperating business or organization.
 - e. Assurances should be made that affiliated site sponsors follow practices consistent with institutional equal opportunity/affirmative action guidelines.
2. Department Responsibilities
 - a. The internship programs should be a regular part of the instructional program for

majors in the department.

- b. The procedure for initiating an internship program should be the same as that for adding a course to the regular curriculum.
 - c. The matters of scheduling supervision, academic credit, evaluation, instructor work load, prerequisites, eligibility, etc., should be resolved at the department and college levels through the same procedures provided for other courses.
 - d. The department chairperson involved in the internship programs should exercise special care to ensure that instructor work loads be adjusted appropriately.
 - e. Departments should review and scrutinize their internship programs regularly and carefully to ensure that quality is maintained and that recognized goals of the department are being met.
 - f. In instances where federal funds are available for internship programs, the departments should avail themselves of the advice and assistance of the University officer who is knowledgeable about federal procedures to be followed in applying for such funding.
 - g. The department should ascertain whether each proposed field supervisor is a recognized professional in the subject area of the internship program.
3. Faculty Member Responsibilities
- a. The faculty member is responsible for coordinating contacts with the field supervisors with whom the internship is to take place, for arranging the work program in consultation with the field supervisor, and for maintaining this contact with each field supervisor until the student has successfully completed the experience.
 - b. The faculty member responsible for the internship program should provide an appropriate course syllabus and seek approval in a manner similar to that provided for regular courses.
 - c. The faculty member should supervise the student and work closely with field supervisors.
 - d. The faculty member should carefully screen field supervisors and work environment situations.
 - e. The faculty member should arrange times and dates of student participation with the field supervisor and should resolve any scheduling problems which the students encounter.
 - f. The faculty member should apprise the student of what is expected and assign the student's grade at the end of the semester.
 - g. The faculty member should follow up on the student's progress with periodic contacts with the supervisor as well as conferences and reports from the student.
 - h. The faculty member should file a schedule of work experiences and activity guidelines with the department.
 - i. The faculty member should ensure that the quality of the internship continues from semester to semester.
4. Professional Field Supervisor Responsibilities
- a. The professional field supervisor should assist the faculty member in planning relevant and desirable work experiences for the student participant.
 - b. The professional field supervisor should provide guidance to the students in their internship programs.

- c. The professional field supervisor should work closely with the faculty member to make certain the intended learning takes place.
 - d. The professional field supervisor should remunerate the student if such has been agreed upon in advance.
 - e. The professional field supervisor should record attendance of the student on the internship.
 - f. The professional field supervisor should notify the faculty member if any major deviations from the intended program become necessary or desirable.
 - g. The professional field supervisor should evaluate the student's participation in the internship program and submit the evaluation to the faculty member.
5. Student Responsibilities
- a. The student is answerable to the field supervisor for on-the-job performance and to the faculty member for academic, course-related matters.
 - b. The student should clearly understand the nature of the internship program in terms of credit hours, salary (if any), method of grading, duration of the program, and the number of hours required for the program.
 - c. The student is required to attend all scheduled meetings and to complete all assignments and the schedule of activities agreed upon by the faculty member and the professional field supervisor.
 - d. The student is expected to provide all transportation, personal equipment, and supplies not provided by the affiliated sponsor.
 - e. The student is expected to write and submit follow-up reports, a comprehensive final report, and/or a listing of work experiences to be graded or evaluated by the faculty member.