

# Information About Courses

## Course Numbers

The courses in each department are numbered from 1 to 699, according to the following groups:

- 1-99 Courses not carrying credit toward a degree (zero credit).
- 100-299 Courses primarily for freshman and sophomore students.
- 300-499 Courses primarily for junior and senior students.
- 500-599 Courses primarily for graduate students, but open to qualified undergraduates.
- 600-699 Courses for graduate students.

## Credits and Contact Hours

The academic value of each course is stated in semester credits. Each credit is normally earned by attending one (50-minute) hour of lecture or recitation per week for the entire semester, or by attending a laboratory or studio period of two or three hours per week. As a guideline, undergraduate students typically will be expected to spend two hours in preparation outside of class for each lecture or recitation hour; additional outside work may be required for laboratory or studio classes.

Each course states the number of semester credits assigned to the course, preceded in parentheses by the number of hours in class (contact hours) expected of the student. The first of the two contact-hour numbers indicates the number of lecture or recitation class hours per week for the semester. The second is the number of laboratory or studio hours required per week. Laboratory and studio hours may include some time devoted to lectures and recitations. For example, COM S 227 Introduction to Object-oriented Programming is listed as (3-2) Cr. 4. In that case, the course is 4 semester credits, 3 hours of lecture and two hours of laboratory each week.

The term "Cr. arr." means that the amount of credit is arranged in advance between the student and the instructor. The credit to be earned depends on the amount of work expected of the student, in accordance with the policy that some combination of teacher-student contact and outside work by the student involving at least three hours per week for the semester is required for each credit.

The term "Cr. R." means that the course is required in a certain curriculum or as cognate to one or more other courses. It is also used for cooperative education courses and for some optional inspection trips, study tours, and professional development courses for which numerical credit is not granted. An R credit course does not carry numerical credit toward a student's degree, but it does apply toward the degree. The R credit course is generally listed on the degree program as a requirement for a specific curriculum/major that must be completed prior to graduation. R credit courses may be graded using the A-F grading scale or the satisfactory/fail grading scale. All R credit courses are assigned a numerical value for purposes of enrollment certification. Requests by students to drop an R credit course will be processed as an administrative drop during period 2 and thus will not be counted against the student's drop limit and will not appear on the student's transcript. (See Index, Schedule Changes.)

## Semester of Offering

Within each course description may be found one or more of the following letters: F, S, SS., indicating which term—fall, spring, summer session—of the academic year the course is offered. "Alt." is the abbreviation for alternate. If there is sufficient demand, courses may be offered more frequently than announced. Insufficient demand or unforeseen staffing problems may result in the cancellation of announced offerings. Students are advised to refer to the Schedule of Classes or consult with departments for up-to-date course schedule information.

## Course Prerequisite

A prerequisite indicates the specific academic background or general academic maturity considered necessary for the student to be ready to undertake the course. Prerequisites are usually stated in terms of specific courses, but equivalent preparation is usually acceptable. An instructor may, however, direct a student whose background does not meet the stated prerequisite, or its equivalent, to drop the course. Conversely, an instructor may waive the prerequisite for a course for which he or she is responsible. Thus, permission of the instructor is understood to be an alternate to the stated prerequisites in all courses.

It is university policy that the instructor shall inform the students at the beginning of each course if students who have not met the prerequisite requirements must

drop the course. Course prerequisites are listed in the Schedule of Classes as well as in the Courses and Programs section of this publication.

## Cross-listed Courses

A course, including its complete description, may be listed in two or more departments. The participating department or departments are noted in parentheses. Credit for the course may be obtained through any of the cross-listed departments.

## Dual-listed Courses

Dual-listed courses permit undergraduate and graduate students to be in the same class while receiving credit for either undergraduate or graduate level work.

Credit in the graduate course is not available to students who have received credit in the corresponding undergraduate course. Both graduates and undergraduates receive the same amount of credit for the course, but additional work is required of all graduate students taking the course under the graduate-level course number. This extra work may take the form of additional reading, projects, examinations, or other assignments as determined by the instructor. The instructor must be a member of the Graduate Faculty or a Graduate Lecturer. Each dual-listed course is designated in the catalog with the phrase "Dual-listed with," although the student's official transcript of credits, both graduate and undergraduate, does not identify dual-listed courses as such. There is a limit to the number of dual-listed course credits that may be used to meet the requirement for an advanced degree. (For information about procedures for requesting permission to offer dual-listed courses, faculty should consult the Graduate Faculty Handbook.)

## Off-campus courses-Residential Credit

Iowa State University faculty teach distance learning courses online, by video conferencing, streaming media, and CD/DVD. Courses are the same as those offered on campus, carry residential credit, and are taught by Iowa State faculty. Credit earned becomes a part of the academic record at Iowa State University and may be used to meet degree requirements the same as credit earned on campus.

## Priority Enrollment

High demand for courses in certain areas has necessitated enrollment management for some courses. When enrollment priority is established for a course, first consideration is given to students whose curriculum/major explicitly requires the course.

## Special Course Fees

Courses for which special course fees are assessed are designated in the Schedule of Classes. Special course fees may be assessed for such extraordinary costs as materials fees (which may include consumable materials or equipment replacement), field trip expenses, developmental Math fees, and camp fees. In some cases, special course fee amounts vary from term to term. Additional information on camp fees and the developmental Math fee may be found in the fees and expenses section. See Index, Fees.

## Graduate Programs

### Graduate Major

A major in the Graduate College is the area of academic professional concentration, approved by the Board of Regents, in which the student chooses to qualify for the award of a graduate degree.

### Graduate Area of Specialization

Areas of specialization are indicated in the graduate statements of some departments. This is a subdivision of a major in which a strong graduate-level program is available. When approved by the Graduate College, such areas of specialization are shown parenthetically after the major on official records, including transcripts and thesis/dissertation title pages.

### Nonmajor Graduate Credit

All courses included on the Program of Study of a graduate student must be approved by the student's program of study committee. Usually courses in the major are selected from 500- and 600- level courses in the major. Courses outside of the major can be selected from other 500- and 600- level courses and from 300- and 400- level courses which have been approved for nonmajor graduate credit. In the catalog, the approved 300- and 400- level courses are indicated by the words "Nonmajor graduate credit" in the course description.