

**ESTABLISHING AND/OR REVIEWING PREREQUISITES,  
COREQUISITES AND ADVISORIES**

**A GUIDE FOR DIVISIONS**



**IMPERIAL VALLEY COLLEGE**  
April 1995

## **Overview**

1. Determine type of prerequisite or corequisite desired for course or program and required level(s) of scrutiny.

(see Page 2: LEVELS OF SCRUTINY REQUIRED OF PREREQUISITE/COREQUISITES)

2. For course or program prerequisites that require content review, initially complete content review.

(see Page 3: CONTENT REVIEW PROCESS)

3. For prerequisites requiring data collection and analysis, content review must be approved by the Curriculum & Instruction Committee prior to initiating research.

(see Page 7: RESEARCH TO ESTABLISH PREREQUISITES/COREQUISITES)

4. Complete any additional required levels of scrutiny, using appropriate documentation.

(see Pages 8-12: REQUIRED FORMS)

5. Present all required documentation to the Curriculum & Instruction Committee for approval.

## **ACKNOWLEDGEMENT**

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**LEVELS OF SCRUTINY  
REQUIRED FOR PREREQUISITES/COREQUISITES**

**Summary**

<b><u>Prerequisite/Corequisite Type</u></b>	<b><u>Level(s) of Scrutiny Required</u></b>	<b><u>Example</u></b>
Course in a sequence in a discipline	Content review	English 1A for English 50
Course out of discipline (Not English or Math skills)	Content review + Equivalent at 3 UC/CSU	Bio 3 for Anat 10
Course or eligibility for course out of discipline (English or Math skills)	Content review + Data collection & analysis	No such prerequisites currently in use
Assessment process (For use within same discipline sequence)	Content review + Test approved by CO + Validated cut-off scores + Multiple Measures + Disproportionate impact study	Assessment process for English 1A eligibility
Program Prerequisites	Establish for one required course in the program	Anatomy 10 for enrollment in the Nursing program (English 1A, 11 and Math X require scrutiny level c above)
Health & Safety	Content review for health & safety skills	
Non-course prerequisites (GPA, recency, etc.)	Content review + Data Collection and analysis	2.0 GPA for enrollment in the Nursing Program
Recommended preparation	Reviewed as part of institutional Program Review	Recommended Preparation: Eng 2B & 12B for AJ 32
Imposed by Law or Contract	Determined by Governing Board	EMT 2A: must have EMT 1 certificate
<b>Other Limits on Enrollment:</b>		
Performance courses	Other courses are available to meet degree/cert requirements + Disproportionate impact study	NA at this time
Honors courses	Other sections/courses are available to meet degree/certificate requirements	Honors 21-30
Blocks of courses or sections (establishing a cohort)	Other sections/courses are available to meet degree/certificate requirements	ESL Blocks

## CONTENT REVIEW PROCESS

(Based on Design 23 in Matriculation Evaluation: Phase III, Local Research Options, California Community Colleges, June, 1992, Marty Dunlap, Butte College Assessment Coordinator, principal author. [Note: In the following discussion the term prerequisite applies to corequisite as well.])

The purpose of the content review is to clarify the skills and concepts developed in a course, to identify possible gaps in skill development between a course and its prerequisite, and to assure smooth transition between the two courses.

The goal of content review is to establish entrance criteria for a course needing a prerequisite and to make a comparison with the exit criteria for the prerequisite course.

A course prerequisite represents a professional judgment by the institution's faculty that a student's ability to succeed in a particular outcome course is dependent on possessing certain abilities, skills and/or knowledge prior to undertaking the course. In determining course objectives, various assumptions are made about the entering students' abilities, skills and knowledge. The classification of these assumptions and the review of a prerequisite requires that a judgment procedure be undertaken.

**STEP 1:** Define entrance expectations in the outcome course.

Each instructor who teaches the outcome course should review the course outline, syllabus, texts and reading assignments, tests, and any other course materials used.

Each instructor should compile a list of "Entering Skills." For a prerequisite or corequisite, the Entering Skills are those without which, in the professional judgment of the instructor, the student is highly unlikely to succeed in the course. For an advisory on recommended preparation, the Entering Skills are those which, in the professional judgment of the instructor, will enrich or deepen the student's knowledge obtained from the course but without which the student may still succeed in the course.

Those instructors who teach the course should then meet, discuss their Entering Skills lists, resolve any differences, and compile a final list by consensus. This list of skills can be documented in the course outline of record by including a section entitled "Prerequisite Skills" ("Upon entering the course the student should be able to ....") or "Advisory Skills" ("Upon entering the course it is recommended that the student be able to ....").

STEP 2: Identify means of obtaining abilities, skills and knowledge.

Once entrance expectations are clarified, the faculty should then suggest how the necessary abilities, skills, and knowledge can be obtained or assessed. Courses in the college's curriculum or assessment processes should be identified that provide the exit skills needed for the outcome course. For courses in the curriculum, these exit skills are listed in the "Student Outcomes" section of the course outline of record ("Upon completion of the course the student should be able to ...").

STEP 3: Compare the exit skills for the prerequisite course and the entering skills for the outcome course.

To compare the exit skills of the prerequisite course with the entering skills of the outcome course, it is suggested that a matrix be formed with entering skills across the top and exit skills down the side. At the points where the two match, a notation can be made in the matrix. The faculty should then examine the matrix to determine if the entering skills are met by the prerequisite course. The question to be raised is, "Are the exit skills of the prerequisite course much lower, about the same, or much greater than the entering skills of the outcome course?"

If the entering skills of the outcome course are substantively the same as the exit skills for the prerequisite course, then the choice is a good one. If the prerequisite exit criterion are greater or more diverse than the entering expectations of the outcome course, the faculty should carefully consider whether requiring the course as a prerequisite is justified or if an alternative approach might be better.

If the exit skills do not clearly match the needs listed by the faculty of the outcome course, a discussion between the groups may be helpful. It may be that differing perceptions about the curriculum can be resolved, or that gaps which have been identified in the student's preparation can be corrected by modifying the curriculum of either the prerequisite course or the outcome course.

Upon completion of the content review by the discipline faculty, the revised course outline of record containing the prerequisite skills section is submitted to the Curriculum Committee along with the matrix to facilitate their review of the process and approval of the recommended prerequisite.



## SAMPLE OF COURSE OUTLINE SKILLS LISTING FOR CONTENT REVIEW

### Prerequisite Skills for chemistry 1A:

Mathematics: Before entering the course the student should be able to:

1. Operate a scientific calculator, including +, -, x, ÷ exponential notation, log and antilog (base 10 and base e),  $1/x$ , square root of  $x, x^y$ ;
2. Find a root of power of any number;
3. Add, subtract, multiply, and divide numbers in exponential notation;
4. Take the log and antilog of any number in either base 10 or base e;
5. Perform chain calculations knowing the hierarchy of functions;
6. Add, subtract, multiply, and divide fractions;
7. Solve an algebraic equation for an unknown, including both first and second order equations (quadratic solution);
8. Give a linear equation with two variables, recognize direct and inverse proportionalities;
9. Give a statement of a problem, assign variables and construct an algebraic relationship among them;
10. Give a set of data involving two variables, plot a graph of that data;
11. Give a straight-line graph, calculate the slope of the line;
12. Give a straight-line graph, write the equation relating the variables.

Chemistry: Before entering the course the student should be able to:

1. Use the dimensional analysis (factor-label) method of problem solving;
2. Recognize and correctly use significant figures for lab equipment readings and in chemical calculation;
3. Use the metric system units and prefixes and do metric and English unit conversions;

Prerequisite Courses in Which These Skills are Learned:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

# **RESEARCH TO ESTABLISH PREREQUISITES/COREQUISITES SUMMARY**

## **Purpose of research**

To establish that students are “highly unlikely to succeed” in a course unless they have met the proposed prerequisite or corequisite.

## **Research Data Collection Procedures**

Coordinate with the related IVC department

Complete content review and obtain its approval from C & I Committee

Choose one or two measures of student success:

- Required: Final grade
- Recommended: Instructor evaluation of student’s preparedness for course  
Midterm grade  
Student evaluation of student’s preparedness for course

Complete and submit research data collection request form to Information Systems Department before beginning of semester in which data will be collected

- Confirm content review and rationale for prerequisite/corequisite
- List course sections for data collection and projected enrollment.
- List proposed measure(s) of student success

Responsibilities of Information Systems Department

- Prioritize requests for research in a specific semester, if necessary
- Obtain student data from computer files

## **Statistical Analysis Standards**

Comparison of students with/without prerequisite or corequisite and students who are successful/not successful must demonstrate all of the following standards:

- Statistically significant difference between students with/without prerequisite
- Less than 33 percent of students without prerequisite are successful
- Students with prerequisite succeed in 2:1 ratio than students without prerequisite

## UC/CSU PREREQUISITE/COREQUISITE JUSTIFICATION FORM

A prerequisite/corequisite in another discipline (other than English or Math) may be established provided that, in addition to the *Content Review*, three University of California or California State University campuses can be identified that offer the equivalent course with the equivalent prerequisite. This justification is intended for very common cases. Examples are standard science class prerequisites or standard foreign language classes. Any combination of University of California campuses and California State University campuses is acceptable to satisfy this requirement.

If you are having difficulty finding three CSU or UC courses that have the same courses and the same prerequisites, check with the College Articulation Officer; UC and CSU catalogs are located in the Counseling Center.

Required:

- Content review
- Three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite in order to demonstrate that, in fact, the prerequisite in question is a usual, customary, and reasonable one. Attach photocopies of the UC and/or CSU course descriptions from the respective catalogs.

IVC Course: \_\_\_\_\_

IVC Prerequisite Course: \_\_\_\_\_

Three UC and/or CSU campuses: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Proposed by Discipline Faculty: \_\_\_\_\_ Date: \_\_\_\_\_

Division Dean/Area Chair: \_\_\_\_\_ Date: \_\_\_\_\_

**COMMUNICATION/COMPUTATION PREREQUISITE/COREQUISITE  
RESEARCH DATA COLLECTION REQUEST FORM**

This research request form is required only for establishing communication (English 1A or below) and/or computation (Math A or below) prerequisites/corequisites for courses in other academic disciplines (Eligibility for English 1A as a prerequisite for Adm Jus 21). This form must be completed by the faculty member initiating the request for research data collection to establish a prerequisite/corequisite for a course.

Approval of the research request must be obtained from the appropriate Division Chair and the Curriculum & Instruction Committee.

INSTRUCTIONAL DIVISION/ AREA: \_\_\_\_\_

COURSE NAME/NUMBER: \_\_\_\_\_

PROPOSED PREREQUISITE: \_\_\_\_\_

PROPOSED COREQUISITE: \_\_\_\_\_

(Indicate exact language to be included in the course description printed in the College catalog and class schedule.)

FACULTY MEMBER INITIATING REQUEST: \_\_\_\_\_

ESTABLISHMENT OF PROPOSED PREREQUISITE/COREQUISITE HAS BEEN DISCUSSED WITH ALL AFFECTED FACULTY:

YES \_\_\_\_\_ NO \_\_\_\_\_

**STEP 1:** Complete content review analysis required for establishment of all prerequisites or corequisites.

**STEP 2:** Indicate below specific course sections selected for data collection, and projected enrollment of course sections. This information will be used to determine adequacy of student sample size required for data analysis.

Course Section(s)

Term

Projected Enrollment

**STEP 3:** Select one of the student outcome measures listed below that you would like used for data collection and subsequent statistical analysis. Final grade outcome data will be included in all research designs; however, instructors are encouraged to select one additional student success outcome measure to be included in the research analysis.

\_final grade only

Additional Student Outcome Measures:

\_instructor evaluation ratings of students' level of preparedness or potential for success in the course

\_midterm grade based on work completed

\_student perceptions concerning level of preparedness or potential for success in the course

**STEP 4:** Meet with the appropriate division chair to discuss content review analysis and proposed prerequisites/corequisite research request.

Verification of Division Approval:

\_\_\_\_\_  
Division Chair Signature

Date: \_\_\_\_\_

**STEP 5:** Present the required content review analysis to the Curriculum & Instruction Committee for approval:

Verification of Curriculum & Instruction Committee Approval:

\_\_\_\_\_  
Curriculum & Instruction Committee Chair Signature

Date: \_\_\_\_\_

**STEP 6:** Submit completed research data collection request form to the Information Systems Supervisor for review.

Data Collection Approval:

\_\_\_\_\_  
Information System Supervisor Signature

Date: \_\_\_\_\_

**STEP 7:** Submit the successfully completed research study to the Curriculum & Instruction Committee for its approval.

## **HEALTH AND SAFETY PREREQUISITES/COREQUISITES FORM**

A prerequisite/corequisite may be established provided that the course for which the prerequisite is proposed is one in which the student might endanger his or her own health and safety and that of others. The prerequisite consists of the necessary skills that the student must possess in order to protect his or her health and safety or that of others before entering the course. Content review for health & safety identifies the health and safety skills necessary for a student to enter a particular course rather than the skills or body of knowledge necessary for a student to succeed in the course. Disciplines should also review the applicable provisions of the Federal Government's Americans with Disabilities Act of 1990 in regard to any requirements that apply specifically to students with disabilities and the Federal Vocational Education provisions that relate to students with limited English skills.

Required:

- Content review for health and safety.
- Narrative description and justification for the co/prerequisite.

Course: \_\_\_\_\_

Description of health and safety pre/corequisite (type of course, test or program):

Justification:

Signatures must be obtained before submission to Curriculum & Instruction Committee.

Proposed by Discipline Faculty: \_\_\_\_\_ Date: \_\_\_\_\_

Division Chair: \_\_\_\_\_ Date: \_\_\_\_\_

## LIMITATION ON ENROLLMENT JUSTIFICATION FORM

Enrollment in courses or blocks of courses may be limited based on performance, honors, or other performance based criteria. In these cases, there must be equivalent courses available to meet degree or certificate requirements.

Course Number(s):

Course Title(s):

Rationale for Limiting Enrollment:

Equivalent course(s) available to meet degree or certificate requirements:

### **Disproportionate impact in performance-based course**

If the limitation is based on performance, it must be determined during program review whether the limitation disproportionately keeps underrepresented students from enrolling in the course or block of courses. In this case, a plan must be adopted to remedy this disproportionate impact.

Plan for study or remedy (and timelines):

Signatures must be obtained before submission to Curriculum & Instruction Committee.

Proposed by Discipline Faculty: \_\_\_\_\_

Date: \_\_\_\_\_

Division Chair: \_\_\_\_\_

Date: \_\_\_\_\_

## QUESTIONS & ANSWERS ABOUT PREREQUISITES

*Q. We have prerequisites already. Why all the changes?*

A. Recent changes in Title 5 require that, if a course has a prerequisite, it must be necessary for success in the target course. Furthermore, we must ensure that the prerequisite is equitably and fairly enforced, and that it has been approved in a separate action by the Curriculum & Instruction Committee.

*Q. Can an instructor sign a student into his or her class without the student completing the course prerequisite?*

A. No. The purpose of prerequisite enforcement is to make sure students have the necessary background to be successful in the course. An instructor's waiver of a prerequisite is in violation of Title 5 Regulations.

*Q. What if I, as the course instructor, do not want the prerequisite enforced?*

A. Individual instructors cannot arbitrarily change prerequisite or enforce other enrollment standards that are different than those approved by the division and the Curriculum & Instruction Committee. Title 5 requires uniformity among sections of the same course.

*Q. What if a student wants to "waive" the prerequisite?*

A. WAIVERS ARE NOT ALLOWED. If the course has an approved prerequisite, it must be enforced.

*Q. Can a student challenge a prerequisite?*

A. Yes. Title 5 also stipulates that while prerequisites are to be enforced, students have the right to challenge prerequisites based on certain grounds.

*Q. On what grounds can a student file a challenge?*

A. The student can **challenge** the prerequisite on one or more of 5 grounds: (1) the prerequisite approval did not follow district policy; (2) it is not necessary for success in the course; (3) it is discriminatory; (4) the prerequisite course has not been made readily available and/or (5) the student has the knowledge or skills to be successful in the course.

*Q. How does the student file a challenge of a prerequisite?*

A. The student files a "Student Petition" with the Division Chair. Petitions are available in the Counseling Center or the Admissions Office and the exact process will be printed in the new catalog.

## Q & A (continued)

*Q. Does filing a challenge guarantee a seat in the class?*

A. No! Once the student files a challenge, he or she is **eligible** to register in the course and should do so immediately. If the student delays enrollment or if the desired section or course is closed, he or she must find another course section or wait until next semester. If the challenge is approved, the student is allowed to remain in the class; if it is denied, the student will be dropped from the class.

*Q. Is there a timeline for processing challenges?*

A. Yes. The challenge must be acted upon no later than five working days after the student submits it to the Division Chair. If the process takes longer, the student is allowed to stay in the class.

*Q. Will prerequisites impact course enrollment?*

A. Yes. If the student has not satisfactorily completed the prerequisite, he or she will not be allowed to remain in the course. Present practices allow students to enroll regardless of whether or not the prerequisite has been completed; therefore, you may see a reduction in your enrollment if you have an enforceable prerequisite.

*Q. If a course has a prerequisite, and my department doesn't want to enforce it, what can we do?*

A. If the faculty in the department wants to change any prerequisite, corequisite or advisory, they must submit changes to the Curriculum & Instruction Committee.

*Q. What is an enforceable prerequisite?*

A. An enforceable prerequisite is one that enhances a student's chances of success in the target course. **THE TEST FOR THE NECESSITY OF THAT PREREQUISITE IS-WILL THE STUDENT BE HIGHLY UNLIKELY TO SUCCEED WITHOUT IT?** If faculty demonstrate through analysis of course content and/or research documentation that success is related to the prerequisite, then the prerequisite is necessary. If the students can succeed without the prerequisite, then it is not a valid prerequisite and cannot be enforced.