

# Introduction

## Background

The Intersegmental Major Preparation Articulated Curriculum (IMPAC) project originated in the Intersegmental Committee of Statewide Academic Senates (ICAS) of the California Community College (CCC), University of California (UC), and California State University (CSU) systems. IMPAC is a unique faculty-designed, faculty-run project designed to assist the student transfer process from the community colleges to the UC and CSU systems for the baccalaureate degree. In June 2000, the Chancellor of the California Community College system awarded the first of five \$550,000 annual grants to fund the work of IMPAC.

## Goals and Purposes of the Project

The need for IMPAC is expected to continue as long as articulation is needed among the higher education systems. The project goal is for faculty in the disciplines, through regional and statewide meetings, to come to a common understanding of lower-division, major preparation that serve as prerequisites to upper-division work at UC and CSU campuses. Faculty review, revise and update prerequisite and lower-division course requirements for the major and seek to define the content areas, competencies, skills, and experiences transferring students must have to compete successfully at the upper division level. Resultant course descriptions will serve as the basis for articulation among UC, CSU, CCC and other institutions so that students may smoothly transfer in a manner that assures both full preparation and complete credit for courses completed. The objectives of the IMPAC project include:

- ▶ Reaching intersegmental consensus on the required elements to be included in the lower division preparation for the major;
- ▶ Working with other intersegmental transfer efforts: the California Articulation Number (CAN) System, Articulation System Stimulating Inter-institutional Student Transfer (ASSIST), Intersegmental General Education Transfer Curriculum (IGETC), GE-Breadth/IGETC, the CSU Regional Core Alignment Project, and the community college organizations of counselors, articulation officers, and transfer center coordinators;
- ▶ Increasing transferability of students between system campuses and between the three higher education systems; and
- ▶ Decreasing the time to degree for students.

IMPAC also seeks to increase intersegmental faculty collaboration, strengthen the alignment of curriculum and the rigor of its delivery, build trust among faculty of the three segments, and better serve students whose education is a shared mission of both the sending and receiving institutions.

As a result of IMPAC, ICAS hopes to improve student transfer through increased awareness and involvement of faculty and ensure that all students are well prepared for upper-division work. Students should be able to avoid unnecessary course work prior to transfer, assure that all required courses are taken before transfer, and not have to repeat courses taken successfully at the community college in preparation for the major.

## Process

During a five period the IMPAC project will create an effective infrastructure within and between academic disciplines. IMPAC has grouped the range of available transfer majors into five broad areas or “clusters” of disciplines. These five discipline areas are listed below. Each year additional disciplines will be added until all disciplines are included. These grouped clusters of disciplines generally reflect the overlap of prerequisites for a given major. Thus, in Science Cluster I, students majoring in physics commonly will need pre-transfer work in mathematics to be eligible for the major. Biology majors need mathematics, as well as some chemistry and physics, to be successful as biology majors. Majors in Applied Sciences (Cluster 2) build upon the core courses of Cluster I. Thus, the interdisciplinary discussions cross clusters as well as disciplines.

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| 2000 | Sciences (Cluster 1): biology, chemistry, engineering, mathematics, and physics.   |
| 2001 | Applied Sciences (Cluster 2): agriculture, computer science, earth sciences, food science/nutrition, and nursing.                          |
| 2002 | Business and Government (Cluster 3): computer information systems, criminal justice, business, economics, and political science.           |
| 2003 | Social & Behavioral (Cluster 4): anthropology, child development/early childhood education, geography, history, psychology, and sociology. |
| 2004 | Language (Cluster 4): English, ESL, foreign languages, communications/speech, and journalism.  |
| 2005 | Arts & Humanities (Cluster 5): art/fashion/interior design, theater arts, humanities, music, and philosophy.                               |

*To be considered prior to 2005, pending completion of CSU's internal review: teacher preparation/liberal studies.*

From the very beginning of the project, participants came to understand that, to capture the full range of coursework needed for successful transfer, it is essential that we facilitate both discipline and cross-discipline faculty dialogues. In fact, we have found that such interdisciplinary discussions can have immediate and lasting effect when faculty come to understand the reality and impact of given requirements on student transfer chances. For example, in 2000-01 upon discussion and reflection, faculty from biology and mathematics concluded that the historical practice of requiring calculus-based physics for biology transfers is more tradition than necessity. The conversations between physics and biology can lead to a more flexible articulation of the algebra-based physics as appropriate for bioscience transfers. This outcome will be of immediate benefit to students, particularly those who want to transfer from smaller or more rural community colleges unable to offer such advanced courses on a regular basis. This year, the cross-discipline discussions have resulted in a letter to the department chair of nursing, chemistry and biology with the suggestion of creating an integrated chemistry course for nursing student.

Each year, ICAS, through its Steering Committee, identifies lead faculty in each of the disciplines.

Work begins by the lead faculty and their assigned articulation officers on updated or developing matrices that show major-preparation requirements at each UC and CSU. These major prep matrices served as the basis for preparing tables of course descriptions using information from online catalogs. Work then began on determining the extent of articulation of major prep courses. Matrices for each UC and CSU for each major was constructed to show numbers for courses already articulated from each community college. Information from the state repository for articulation agreements, Articulation System Stimulating Interinstitutional Student Transfer (ASSIST), was used to create these articulation matrices.

The next step in this process was to hold regional meetings. Lead Faculty members representing UC, CSU, and CCC facilitated these four regional meetings. Private colleges and universities were invited to attend as well. Articulation Officers, as well as representatives from the CAN System and ASSIST, were present as resources.

Like the statewide meetings, regional meetings schedule time for both disciplinary and interdisciplinary discussions. The discipline faculty begin their discussion with an evaluation of the IMPAC matrices and descriptions and review the status of their existing articulation, identifying potential new agreements that might be fostered. It is anticipated that these discipline-based faculty discussions will lead to increased curriculum alignment across all the segments.

The interdisciplinary discussions that follow later in the day remain essential in building cohesive and coherent programs in the major and in easing what are perceived by students and segments alike as barriers to effective transfer. From these interdisciplinary discussions have come significant recommendations and new understandings among disciplines and their faculty.

Regional meetings are also designed to seek and secure several agreements among departments in the region. Commitments are sought from faculty at four-year institutions to notify community college faculty of impending curriculum changes and to collaborate on those

changes to the extent feasible. When major preparation requirements are changed, receiving departments will be asked to establish a one-year period during which community college students will be accepted under previous requirements. Community college faculty will in turn invite a representative from a four-year department to participate in the program review now required under the six-year accreditation cycle.

As mentioned in this year's Geography report, one of the most powerful advantages of IMPAC is the facilitation of regional connections among faculty at different institutions. "These relationships influence the transfer process and promote successful and accurate counseling as effectively as documented instructions. Thus, an important part of every regional IMPAC meeting should be the sharing of local patterns and transfer needs of the colleges and universities represented."

After each regional meeting is concluded, the Lead Discipline Faculty member prepares a report summarizing statements of the competencies and preparation expected of students entering upper-division work in the major. These reports are posted on the IMPAC website and widely circulated for comment by the field. Steering Committee members presented material and commentary for review to ICAS. Using Web site resources, professional organizations, and internal structures for distribution, ICAS then further disseminates to affected faculty of UC, CSU and CCC those reports containing the core competencies and preparation for each discipline as determined thus far.

These feedback loops, as well as the alternating regional and state meetings, are extremely important steps in generating sufficient dialogue and building consensus among discipline faculty. The perceived legitimacy of the products is critical in securing widespread "buy in" by faculty across all the institutions.

In these first years, IMPAC has made considerable progress in forging mutual understanding and appreciation among faculty in the three segments; this level of trust, candor, and exploration is essential to crystallize the pre-transfer, lower division, major preparation needed for each undergraduate major. These understandings are being concretized in matrices and articulation agreements. An infrastructure of discipline committees, agreements, and contacts is being established.

Further, the infrastructure and collaborative efforts with ASSIST and CAN provide solid foundations for institutionalizing IMPAC—locally and statewide to enable the necessary, ongoing review and cyclic renewal of those agreements. By linking these reviews to the ongoing work of articulation officers, using CAN to formalize these course descriptions, and publishing and maintaining the articulation agreements in the ASSIST database, these dynamic agreements about undergraduate major preparation will constitute a considerable advance for students negotiating transfer among the segments of higher education in California. We have seen remarkable progress to date; we expect the IMPAC project to foster continued progress throughout the duration of this initial grant.