

## **Streamlining UC Articulation – Feasibility Study Proposal September 3, 2003**

In February 2003 the University of California Academic Senate began considering “A Draft Proposal to Streamline the Course Major Articulation Process between UC Campuses and the California Community Colleges” (Appendix A). As this proposal has moved toward possible adoption, in July 2003 the ASSIST Coordination Site proposed a process for implementing the Academic Senate’s concept to the UC Office of the President’s Director of Admissions (Appendix B). The UCOP Director of Admissions convened a workgroup of UCOP admissions staff, UC campus articulation officers, and ASSIST staff to explore the feasibility of the proposed implementation process.

The workgroup met to discuss the Academic Senate and ASSIST proposals and is recommending that a feasibility study of the implementation process be conducted in order to:

- Test the viability of the concept;
- Discover the extent of articulation gaps which might be filled;
- Identify any potential issues with the concept; and
- Provide feedback to the Academic Senate regarding the overall efficacy of a possible implementation procedure as they seek final approval of their proposal.

This document describes the proposed feasibility study and is being presented to the UCOP Director of Admissions for further consideration.

### **Streamlining UC Articulation – Summary**

While all UC campuses have either achieved or are on track to achieve full major preparation articulation with all California Community Colleges (CCC) for the top 20 majors, there may still be gaps in articulation. The UC Academic Senate is proposing a streamlined articulation process to fill-in these gaps. Their proposal recommends that when four or more UC campuses have established identical major preparation articulation for a CCC course or sequence, any of the remaining UC campuses who have not yet directly articulated the CCC course(s) should do so within a 120 day review period. Their proposal further recommends an annual review, presumably to keep articulation current.

### **Proposed Clarifications for Conducting a Feasibility Study**

Within the general guidelines addressed in the Academic Senate proposal and considering the feedback provided by the respective UC campus Academic Senates, the workgroup discussed a number of issues related to clarifying the original Academic Senate proposal. In seeking to conduct a feasibility study, the workgroup proposes the

following clarifications in order to provide enough details to conduct a test-run of the proposed ASSIST process:

1. The phrase “Identical major preparation articulation” from the original Academic Senate proposal could be clarified to mean: articulation of the same CCC course(s) by at least four UC campuses who share a common lower division major preparation requirement. A UC campus’ major preparation requirement would be considered “common” if at least three other UC campuses have the same lower division major preparation requirement for their similar major.

For example, all eight UC campuses require the first year of calculus for their Chemistry majors and this would be considered a “common requirement” for the Chemistry major. However, only two UC campuses require a course in “mathematical proofs” for their Chemistry majors. “Mathematical proofs” would not be considered a common requirement for Chemistry majors and hence the articulation of “mathematical proofs” courses would not be considered in this process.

2. While the UC Academic Senate proposal seeks commonality across four or more UC campuses, the feasibility study would need to identify five or more UC campuses that offer a common requirement – four campuses minimum (to demonstrate commonality) plus one or more additional campuses (to allow for one or more who may not have CCC courses articulated).
3. In keeping with the ASSIST proposal to use IMPAC Discipline Grids to identify common requirements for the feasibility study, the workgroup proposes to refine and update the grids to provide more specific and current information.

### **Proposed Objectives for Conducting a Feasibility Study**

In conducting a feasibility study of the proposed ASSIST process for implementing the Academic Senate’s “Streamlining UC Articulation” concept the workgroup seeks to:

- Identify the number of common requirements that may exist to be analyzed so that the extent of the analysis can be better understood;
- Identify issues in the process of determining common requirements so that a recommended process can account for complexities;
- Identify the number of articulation gaps that currently exist for common requirements and the corresponding amount of additional articulation that could be generated through this activity;
- Identify issues in the process of determining articulation gaps and new articulation in order to ensure its effectiveness;
- Identify further issues UC campuses may encounter in establishing articulation for these gaps; and
- Develop a refined process that will support the Academic Senate’s proposal.

## **Proposed Process for Conducting a Feasibility Study**

The workgroup proposes the following process for conducting the feasibility study to test the “Streamlining UC Articulation” concept:

1. ASSIST staff conduct analysis and develop a set of test discipline grids drawn from the top 20 majors at UC campuses that are also within disciplines currently being addressed by IMPAC. Review grids with UC campus articulation officers for accuracy. These test grids would be similar to the current IMPAC Discipline Grids but would provide a more consistent display format, represent current requirements and courses, and include additional detail required to identify common UC major requirements.
2. ASSIST staff conduct analysis on the grids to determine common major requirements (and the respective UC courses) that are offered at five or more UC campuses. Review list of common major requirements with UC campus articulation officers for accuracy.
3. Using the list of UC courses and majors that represent common requirements, ASSIST staff will run queries against the ASSIST database to identify all CCC courses articulated with those UC courses in those majors.
4. Using this list of CCC courses ASSIST staff will then identify any CCC courses that are articulated with four more UC campuses in the respective major and NOT articulated with one or more other UC campuses that offer the respective major. This list of CCC courses and the corresponding UC courses/majors will constitute potential articulation based on the UC Academic Senate’s concept. ASSIST staff will provide each UC campus articulation officer with their respective list of potential articulation from the feasibility test.
5. UC campus articulation officers review the proposed articulations and prepare a summary of their findings. In the interest of time and testing the feasibility of the concept their focus should be on providing feedback to the process rather than on actually creating new articulation based on the test results.
6. ASSIST staff prepare a feasibility study final report that summarizes the findings from the test-run, addresses the objectives listed earlier in this document, and includes recommendations from the workgroup for a production-level implementation process. This report will be provided to the UCOP Director of Admissions who will forward it to appropriate channels in the UC Academic Senate for further consideration.

## **Feasibility Study Schedule and Costs**

The workgroup proposes that staff at the ASSIST Coordination Site conduct the primary work in the feasibility study since they are familiar with both articulation policies and the detailed data in ASSIST. UC campus articulation officers will review intermediate and final results in order to help ensure accuracy and validity. ASSIST staff anticipate conducting the feasibility study using existing personnel.

The feasibility study will be conducted in two phases:

### **Phase I – Duration: 3 ½ Months**

- Determine majors, develop/review/refine grids, determine/review/refine common requirements
- Perform limited queries and analysis on a few select majors to identify gaps in order to develop specific requirements for a more automated process to identify gaps
- Develop automated process to identify gaps
- Estimate schedule for Phase II
- Provide preliminary report and Phase II estimate to UCOP Director of Admissions

### **Phase II – Duration: To Be Determined (initial estimate two months)**

- Run automated process to identify gaps for all majors
- Conduct required analysis to refine list into a usable format
- Distribute final results to UC campus articulation officers, UC AOs review results and provide feedback to ASSIST, ASSIST compile results
- ASSIST develop preliminary feasibility study report, review with the workgroup, finalize report, and transmit it to UCOP Director of Admissions

Base on these preliminary estimates the feasibility study is expected to require approximately 5 person-months of an analyst's time and about 1 person-month of a programmer's time. This is estimated to cost approximately \$40,000 including salaries, benefits, and a small amount of supplies/operating costs.

**Streamlining UC Articulation – Feasibility Study Proposal**

**Appendix A**

**(UC Academic Senate proposal on streamlining UC articulation)**

## ***A Draft Proposal to Streamline the Course Major Articulation Process between UC Campuses and California Community Colleges*** ***(Draft Only –February 25, 2003)***

The University of California (UC) has worked hard to improve the transfer of students between UC and California Community Colleges (CCCs). One cornerstone of this effort is the development of “articulation agreements” to show how a course or groups of courses at a CCC may be transferred for credit to a UC or California State University (CSU) campus. General education articulation agreements show how certain courses satisfy GE requirements at the UC/CSU campuses. Similarly, major-preparation articulation agreements delineate how community college courses will satisfy the lower division course requirements for UC academic majors.

UC faculty are responsible for the review and approval of articulation agreements between UC campuses and CCCs. In each discipline, they review community college course outlines and supplementary material to determine if a course offered at a community college is comparable enough to the UC course that it can be accepted for credit. Depending on the type of articulation agreement, credit can be granted as general elective credit (Transfer Course Agreement or TCA), general education curriculum credit (Intersegmental General Education Transfer Curriculum or IGETC), or campus-specific credit (campus general education credit or major preparation credit). Of these, the annual TCA and IGETC agreements are developed systemwide by UCOP staff working under faculty supervision, and in the case of IGETC, also in conjunction with CSU faculty and staff. UC has long-established TCA and IGETC agreements with all of the CCCs.

Developing campus-level articulation agreements between institutions is a mammoth undertaking. Given the 108 CCCs, 8 (soon to be 9) undergraduate UC campuses and approximately 650 distinct undergraduate majors offered in the UC system, about 70,000 separate major-preparation articulation agreements are needed for UC to be fully articulated with the CCCs. Creating and keeping track of these agreements between and among campuses is costly, yet vital to the transfer process. Transfer students and counselors at the community colleges rely on the agreements to provide students with the appropriate roadmap in their preparation for the BA degree to which the student plans to transfer. Unfortunately, major-preparation agreements between many UC campuses and many CCCs do not exist. Without major-preparation agreements, potential transfer students will know if the course they are taking is generally transferable by consulting the TCA, but they will not know if the department at a particular UC campus will accept the course as lower division preparation for the major.

To distribute articulation agreements statewide to students, counselors and others, the University has contributed significant resources to ASSIST<sup>1</sup>, an intersegmental, web-based, transfer planning system. ASSIST is the State’s official repository of all official articulation between California Community Colleges and UC and CSU campuses. Any student can log onto ASSIST for free and determine how the courses they complete at a community college will transfer to a CSU or UC campus, assuming that a major-preparation articulation agreement has been established.

Although ASSIST has been in place for over a decade and has effectively categorized articulation agreements among the three segments, the inefficient process for generating agreements between UC campuses and individual community colleges has changed little since the 1960s. All UC campuses essentially conduct a review of every community college course every few years to determine how such courses may be used to satisfy campus-specific major or campus-specific GE requirements. This process is conducted in practically the same way, in parallel fashion, at the undergraduate UC campuses.

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<sup>1</sup> *Articulation System Stimulating Interinstitutional Student Transfer*  
***Streamlining Articulation (Draft Only)***

The course approval process conducted on each UC campus appropriately gives that faculty oversight of courses that are proposed for transfer into their curriculum. It assures that the faculty members who design

courses and curricula can protect the integrity of the curriculum at each UC campus. In this way, program faculty should be confident that transferring students are adequately prepared to succeed in the curriculum offered at a particular UC campus.

It seems likely, though, that the course review and approval process across the campuses can be streamlined to provide faster and more efficient development of articulation agreements, particularly where consensus exists among a number of UC campuses. UC Academic Senate leaders and Student Academic Services staff at UCOP have been discussing ways to simplify the course approval process, while protecting the faculty's prerogative to approve or deny community courses for credit toward an undergraduate major at their own campus.

The following draft proposal has been developed to try to improve the articulation process for major-preparation courses taught at the California Community Colleges:

**When an identical major-preparation articulation agreement has been developed by five or more UC campuses, a California Community College course will be deemed as articulated for all UC campuses unless one or more campuses develops a different, campus-specific agreement within a 120-day review period. A 90-day review period also will be available each year for individual campuses to review their acceptance of previous systemwide major preparation articulation agreements. Nothing in this process would affect the current treatment of courses articulated with the UC system as part of a TCA or IGETC agreement.**

Under the proposal, faculty from each campus could choose to rely on the expertise of one another for the articulation of lower-division major-preparation courses offered at California Community Colleges. Campuses will be notified that the course is about to be designated acceptable at all UC campuses for a particular major, and there would be sufficient time to design and develop an alternative agreement should an alternative appear to be more appropriate at a given campus.

UC Academic Senate  
Student Academic Services  
UC Office of the President  
SJH/DJG/LP/MB (2/17/03)  
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**Streamlining UC Articulation – Feasibility Study Proposal**

**Appendix B**

**(Streamlining UC Articulation – Implementation Proposal)**

## **Streamlining UC Articulation – Implementation Proposal**

### **July 16, 2003 – Draft – Page # 1**

The University of California statewide Academic Senate is considering a proposal to streamline the articulation process. Their proposal recommends that all UC campuses accept the articulation of California Community College courses when those courses have been articulated with at least 4 UC campuses for similar UC major requirements via the traditional articulation process.

This document proposes a possible method for implementing the Academic Senate proposal by leveraging the University's current work with the IMPAC and ASSIST projects.

### **Background**

The Intersegmental Major Preparation Articulated Curriculum (IMPAC) project is a statewide, intersegmental effort where faculty in selected disciplines discuss prerequisite and lower-division courses students must complete prior to transfer to either CSU or UC. Its goal is improving student transfer through increased awareness and involvement of faculty. One aspect of IMPAC is that each discipline develops a grid of all university campus lower division major requirements. These IMPAC Discipline Grids identify specific university requirements and courses and provide a comparison of requirements across campuses including notations of campus-specific variances.

The Articulation System Stimulating Interinstitutional Student Transfer (ASSIST) is a web-based student transfer planning system providing information on how courses taken at California public colleges and universities can be applied when transferring to another institution. ASSIST operates as California's official on-line source for course articulation information and includes participation from all California Community College, California State University, and University of California campuses. Articulation information is entered into ASSIST by university campuses after the respective college and university faculty establish comparability via the traditional articulation process. The ASSIST database includes detailed course-to-course and major preparation articulation data that can be queried as a standard relational database. Customized database queries can be written to perform a wide range of specialized analysis.

### **Proposal**

It may be possible to develop an automated process by which the ASSIST database can be queried to identify specific cases where at least four other UC campuses have established traditional articulation of community college courses (or sequences) for similar lower-division UC major requirements.

- The IMPAC Discipline Grids would be used to identify common lower-division UC major requirements and the corresponding UC courses.
- When the IMPAC grids indicate that more than four UC campuses have a common requirement, ASSIST would use the corresponding list of UC courses from the grid and query the database to identify college courses that are articulated with those UC courses at four or more UC campuses.

## **Streamlining UC Articulation – Implementation Proposal**

### **July 16, 2003 – Draft – Page # 2**

- ASSIST would then query the database to determine any UC campuses that do NOT articulate those college courses that met the previous criteria. This would represent potential articulations that the UC campus might consider.
- ASSIST would provide a list of the potential articulations to the respective UC campus articulation officers. The articulation officers could either adopt or decline these potential articulations based on Academic Senate guidelines established in the respective proposal currently being considered.
- Any new articulation adopted by a UC campus would then be expected to be included their regular articulation agreements, entered into ASSIST, and maintained as traditional articulation in future years.

If such an automated process for identifying potential articulation can be developed it could be run once initially to identify the extent of articulation gaps. It would also be possible to run the process on an annual or semi-annual basis to help identify additional potential articulation as new courses are developed and lower-division major requirements change over time.

### **Concept Development**

ASSIST staff have recently received copies of the current IMPAC Discipline Grids. It is understood that the current versions of the grids may be incomplete, non-standard, or out of data, but they provide enough information to support further investigation. ASSIST staff are using the grids to identify common requirements for a handful of majors, compiling a list of the corresponding courses at each UC campus, and searching the ASSIST database manually to see if corresponding gaps can be identified which could represent new articulation proposals.

Based on this initial manual analysis ASSIST staff will identify any issues encountered and consider what may be involved in automating the process to encompass more majors and all UC and college campuses. With this further information ASSIST staff and other key stakeholders could meet to discuss the concept, related issues, costs, and appropriate next steps.

### **Implementation Considerations**

Course articulation, especially for lower-division major requirements, can be complex and filled with important intricacies. If this proposed process is to be effective, it must be developed in close coordination with UC campus articulation personnel who are most familiar with the intricacies of the traditional articulation process and articulation agreements. If this process is to be developed, it is proposed that a working task force be established with membership including representatives from ASSIST, the UC Office of the President Articulation Analyst, interested University campus articulation officers, and other key stakeholders.

Lower-division major requirements and the corresponding courses at UC campuses change over time. If this process is to be developed, it is proposed that the UC Academic Senate should officially request current grids IMPAC for each desired discipline on a regular basis so that the analysis will be working with the most current information.

**Streamlining UC Articulation – Implementation Proposal**  
**July 16, 2003 – Draft – Page # 3**

Initial analysis has highlighted that some of the current IMPAC grids could be enhanced to reference requirements, universities, and courses in a similar manner (e.g. Physics).

Initial analysis has also shown that some requirements that appear to be common on the grids to not have corresponding articulation. This is an area that would require further analysis and discussion to better understand the issues.