August 15, 2011

UNIVERSITY OF CALIFORNIA
CHAIRS OF THE DIVISIONS OF THE ACADEMIC SENATE

Re: BOARS Transfer Admissions Proposal – Targeted Review Request

Dear Colleagues:

At its July 27, 2011 meeting, the Academic Council directed me to forward the enclosed BOARS policy proposal on transfer admissions. This proposal represents a major revision to UC’s transfer policy to emphasize major preparation as the key component in the comprehensive review of transfer applications. To date, BOARS has consulted with campus admissions committees and directors, UCEP, the UC Office of Admissions, the California State University (CSU), and the Intersegmental Committee of Academic Senates (ICAS) to develop this proposal.

Council respectfully asks that you circulate this document for a targeted review among your relevant faculty committees, including committees on admissions and undergraduate education, who may wish to provide comments to BOARS. Please return all comments on this proposal to BOARS by November 25, 2011. We anticipate that a full Senate formal review of a detailed proposal from BOARS could occur in spring 2012.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Daniel L. Simmons, Chair
Academic Council

Copy: Academic Council
Martha Winnacker, Academic Senate Executive Director

Encl. 1
July 20, 2011

DANIEL SIMMONS, CHAIR
ACADEMIC COUNCIL

Re: BOARS Transfer Admissions Proposal – Targeted Review Request

Dear Dan,

BOARS is proposing a significant revision to UC transfer admissions policy. The attached draft has been informed by discussions with campus admissions committees and directors, UCEP, the UC Office of Admissions, the California State University (CSU), and the Intersegmental Committee of Academic Senates (ICAS). To help BOARS further develop the proposal, we request that Council circulate the document to Senate divisions for targeted review among relevant faculty committees, including committees on admissions and undergraduate education, who wish to opine and provide feedback to BOARS. Assuming feedback from this review is sufficiently favorable, BOARS will, at Council’s discretion, revise the proposal for full systemwide Senate review.

The proposal emphasizes major preparation as the key component in the comprehensive review of transfer applications. Legislation passed in 2010 provided part of the impetus for this work. Specifically, SB 1440 requires the California Community Colleges to develop Associate Degrees for Transfer that specify a major and guarantee degree holders admission to CSU with junior status if they complete minimum GPA and unit requirements, including the CSU GE Breadth or Intersegmental General Education Transfer Curriculum (IGETC) and a defined set of major preparation courses. AB 2302 asks UC to develop similar pathways. These bills and some of the other major statewide transfer initiatives are described in the attached Summary of Statewide Transfer Issues for Admissions Officers and Faculty (Appendix III). BOARS believes it is important for UC to respond to this legislation, and we also think it is time for UC to increase its emphasis on major preparation, a longstanding faculty goal. It is worth noting that for some departments, the existing IGETC pattern may provide adequate major preparation, but for other programs it will not.

The success of the changes proposed here will require faculty from all departments to engage in a discussion about what defines “transfer readiness”. We acknowledge, as UCEP noted to us earlier this year, that portions of the proposal are not yet clearly defined; in particular, the statement “Applicants who have credentials indicating the strongest likelihood of completing their major in approximately two years will be selected for admission.” One of BOARS’ tasks in 2011-12 will be to take what we learn from this targeted review to make this precise and to fully define the process.
To that end, it will be helpful for reviewers to provide suggestions rather than merely note ambiguities. Again, BOARS intends this proposal to undergo another systemwide review later in 2011-12 before going to the Academic Council and Assembly for final approval.

BOARS requests input from this targeted review by November 25, 2011 (in time to begin discussion at its December meeting). If we receive positive feedback, we anticipate a detailed proposal could undergo a full Senate review in spring 2012 with approval by June 2012. An implementation timeline has yet to be determined, although a final proposal that does not eliminate any current paths to transfer could be implemented quickly.

We have included a list of anticipated Frequently Asked Questions (Appendix I). Please let me know if you require any additional information. I would be happy to interact with any divisional campus committees should they have any questions.

Sincerely,

[Signature]

Bill Jacob
BOARS Chair

cc: BOARS
Summary: The proposal calls for increasing UC’s emphasis on major preparation in transfer admission and outlines new pathways to transfer admission that parallel the “entitled to review” feature of the new Freshman Admission Policy taking effect for fall 2012. UC transfer applicants would be entitled to a review (though not guaranteed admission) if they complete any one of three proposed pathway options: completion of a yet to be developed UC Transfer Curricula with a minimum GPA set by each campus; completion of an SB 1440 AA Degree for Transfer with a minimum GPA to be set by each campus; or the current pathway specified in Senate Regulation 476. BOARS wants to communicate to community college students that if they pick a major, prepare for it, and show a strong case for being able to complete their declared majors in two years, they will be fully considered for transfer to UC. Moreover, the policy will be flexible enough to ensure that missing a minor requirement will not derail an applicant’s opportunity to attend UC.

Transfer Admission to the University of California. Transfer applicants who complete one of three paths will be entitled to a Comprehensive Review of their application for admission to UC with advanced standing. This review will not guarantee admission to UC; however, existing Transfer Admission Guarantees (TAG) will remain in place at participating UC campuses. Each pathway requires 60 (90 quarter) transferrable units, and a minimum overall GPA established by the campus to which they are applying. This minimum GPA will be at least 2.4 but not greater than 3.0. Further, the GPA minimum set by a campus should never serve as the dividing line between admission and non-admission, and should allow for a substantial range of applicants to be considered via Comprehensive Review. All applicants must specify an intended major or possible majors in their application. Depending on the campus and major, students may choose to complete the Intersegmental General Education Transfer Curriculum (IGETC) or campus-specific general education/breadth requirements as part of any of the three paths. The three paths are:

(1) Completion of the UC Transfer Curricula for the applicant’s chosen major along with 60 (90 quarter) transferrable units and a minimum overall GPA established by the campus to which they apply.

(2) Completion of an SB 1440 Associate Degree for Transfer and a minimum overall GPA established by the campus to which they apply.

(3) Completion of the minimum criteria of seven courses specified in SR 476 C along with 60 (90 quarter) transferrable units and a minimum overall GPA established by the campus to which they apply. (Note that students who complete IGETC will have these seven courses.)

UC will admit applicants with credentials indicating the strongest likelihood of completing their major in approximately two years. Space permitting, campuses may then select applicants for admission using non major-based criteria, provided the applicants meet the criteria in Pathway (3) and do not displace comparable applicants who met the criteria in Pathway (1). Further, the comprehensive review of applicants will be structured to ensure that no student is denied admission for missing a “minor” requirement if a full file review provides solid evidence of their ability to

1 The details will be left to campuses, but BOARS will set guidelines. Possibilities include: missing one (or possibly two) courses due to lack of availability, or a change in major where the overall strength of the application indicates solid
complete their chosen major in two years. Campuses must view academic accomplishments in the context of opportunity when applying Comprehensive Review in the selection of transfer students, as they do with freshman applicants.

To clarify, the proposed change in policy assumes (incorporates) the following.

- Transfer Admission Guarantee (TAG) programs will remain in place. We note that some campuses are now seeking to reduce the number of transfers they accept through TAG, while other campuses may decide to develop new TAGs, and others will continue to have none. Decisions about participation in TAG programs will be made at the campus level, although BOARS hopes campuses will continue to use them where appropriate, as they provide potential transfers a clear path to UC.

- The pathways stipulated in Senate Regulations 476 A, B, and D will remain in place. (SR 476 A and B address applicants who met freshmen admission requirements and seek transfer admission on that basis. 476 D deals with applicants who would have been eligible for freshman admission except for missing “a-g” or test scores that they subsequently make up. These and other relevant Senate Regulations are provided in Appendix V.)

The Details. BOARS has learned that only about half of UC transfers are currently evaluated on the basis of major preparation, and that practices vary greatly across campuses, with some campuses evaluating almost all applicants on the basis of major preparation, some almost none, and others somewhere in between these extremes. These uneven criteria for transfer applicants are a key reason for bringing uniformity to the process.

Evaluating transfer applications is a complex process that requires experienced professional staff. Using seasonal readers as is done with freshman applicants is not a viable alternative due to the complexities introduced by applicants who have attended multiple campuses and the time involved in checking transferability of course work. Campuses that use major-based reviews do report somewhat longer evaluation times than those who do not, but BOARS believes all campuses can implement major-based review. We propose that campuses establish GPA minimums to help exclude applicants who are unlikely to be competitive and thereby reduce unnecessary review time and expense. While faculty can be helpful and are necessary for setting major-based criteria, ultimately admissions staff will bear the main review work, so as the proposal firms up, adequate support2 for review will be necessary.

Under the policy, readers will review the files of transfer applicants according to the same Comprehensive Review Principles that guide the review of freshman applicants. In particular, no single criteria can be a barrier to admission, and accomplishments must be considered in the context of potential to complete the proposed major. BOARS recognizes that many community college students attend multiple campuses seeking prerequisites for transfer, and like lower division UC students, it is common for potential transfers to change majors after discovering new disciplines. Critics of UC/CSU transfer have argued, rightly or wrongly, that many capable students are derailed in transfer because of difficulty negotiating complex requirements. By providing admissions professionals this flexibility, BOARS believes this criticism is adequately addressed.

2 In its 2011 document, BOARS Statement and Metric on Admissions Funding, staffing requirements for applicant recruitment, evaluation, selection and yield have been spelled and this document was disseminated to the Executive Vice Chancellor at each campus to ensure they understand the appropriate level of support necessary for proper evaluation of applications, both freshman and transfers.
of opportunity. However, unlike freshman admissions, transfer applicants must choose a major (or majors) and the completion and quality of the major preparation will be the most significant component of the selection criteria. Applicants who are not prepared to complete their chosen major within approximately two years will not be admitted, regardless of their GPA, and UC will communicate this as the policy is implemented.

The policy asks campuses to set as their primary transfer admissions criteria a preference for applicants with the strongest credentials for completing their major in approximately two years. BOARS will spell out general principles governing this key selection criterion in greater detail as the process moves forward. Major-based details will be set systemwide when possible and by the campuses where necessary according to a process that BOARS in conjunction with the UC Office of Admissions will establish as part of a final proposal. BOARS will work on this closely with UCEP and other appropriate system wide Senate committees. This work will expand upon the work of the seven high demand disciplines convened by Provost Pitts during 2010-11. For more information, see Implementing AB2302 (Fong): Associate Degree Pathway to the University of California (Appendix IV).

Pathway (1) is the preferred option for transfer students that intend to enter UC. It should streamline graduation in majors with lower division requirements that are barriers to upper division courses. Some majors (particularly in STEM disciplines) will require completion of a specific list of lower division courses, while other majors will expect general education preparation and IGETC\(^3\). BOARS recognizes that faculty input will be essential to filling out these details. Ideally, UC will establish systemwide UC Transfer Curricula similar to the CCC/CSU Transfer Model Curricula created as part of the C-ID project and linked to the SB 1440 degrees. This will enable both UC and CSU to communicate a clear set of expectations for prospective CCC transfers. The work of UC faculty from the seven high demand disciplines convened by Provost Pitts during 2010-11 shows that there is potential to this approach, although we cannot expect perfect alignment in all disciplines. So while BOARS wants UC and CSU Transfer Curricula to be as close as is reasonable, the policy will also allow any department to set independent transfer criteria should they deem it necessary.

Pathway (2) will ensure that Community College students initially targeting CSU who complete an SB 1440 Associate Degree for Transfer but who subsequently decide to consider UC, are not locked out of the opportunity to attend UC. However, UC would not offer the guarantee of admission transfer applicants to CSU receive for completing the Transfer AA. UC applicants will have to compete on the basis of their accomplishments and potential to complete their proposed major according to campus-based criteria.

Because nearly all students completing Pathway (1) or (2) will likely satisfy the current requirements in Pathway (3), this proposal does not reduce expectations. Its primary impact will be the new major-based emphases in selection and the increase in flexibility. In doing so, UC and CSU will deliver a common message to community college students about the importance of major preparation.

\[^3\] At its June 2011 meeting, ICAS resuscitated discussion of SciGETC, a version of IGETC that provides STEM majors an alternate route to satisfying general education requirements while completing more rigorous major preparation. This preliminary conversation arose in connection with SB 1440 which stipulates that AA for Transfer degrees include IGETC and the idea is that ICAS could consider expanding IGETC to include a SCIGETC-like option for Transfer AA’s in STEM disciplines. While there is no guarantee that this will go any further, the idea may be useful as UC Transfer Curricula are developed and BOARS welcomes reviewer comments.
**Benefits:** There are three main benefits to this approach.

1. The proposal will streamline transfer by providing a single message for CCC students interested in preparing for both CSU and UC that aligns with the structure for transfer degrees mandated by SB 1440. The message can be summarized as follows: “Choose a major and prepare thoroughly for it, and if you meet the basic requirements (a Transfer AA or a UC identified Transfer Curricula for your chosen major along with 60 transferrable units and attain the campus minimum GPA), your application will be given a comprehensive review. The applicants with the strongest credentials for completing their major will be selected for admission.”

2. To the extent that students choose to complete an AB 1440 Transfer AA Degree, the proposal will encourage them to also prepare to meet UC expectations, which for some majors will go beyond what is required for the Transfer AA degree.

3. By guaranteeing a review to students with baseline preparation, the proposal parallels changes made to UC freshmen admissions standards taking effect for fall 2012 that are intended to remove barriers and expand opportunities. Moreover, all students currently eligible to transfer to UC will remain so. The main change involves criteria for selection, and UC will select students better prepared to complete their intended major.

**Possible Concerns and BOARS’ Views:**

1. The emphasis on major preparation and large number of requirements in both the SB 1440 AA Transfer Degrees and the Transfer Model Curricula could discourage community college students and cause fewer of them to become competitively eligible for transfer. Thus, it could also make it more difficult for UC and CSU to achieve transfer targets. BOARS met with Campaign for College Opportunity Executive Director Michele Siqueiros and Associate Director Jessie Ryan, whose organization wrote and lobbied extensively for the SB 1440 and AB 2302 legislation. They conceded that data were not available to address this concern. It is the case, however, that most UC campuses currently have an ample number of qualified transfer applications to meet targets. BOARS believes this will continue under the proposed policy, especially with increasing demand for a UC education. Moreover, the benefits of having most transfers thoroughly prepared for junior level work in a proposed major outweigh the risk of some students losing access because they are discouraged by the new major-based expectations.

2. Additional resources will be required to implement a major-based comprehensive review at some campuses, which may require an additional financial commitment, although it has been noted that when students arrive on campus their pre-major status is reviewed by their proposed major department, so this expense occurs anyway for many applicants. BOARS describes the resources necessary to process transfer applications in its Metric on Admissions Funding (see Appendix II). Moreover, as noted in the background section, the additional resources required for major-based evaluation are not as substantial as one might imagine. BOARS believes this will have to be carefully addressed as we move forward. Some Admissions Directors have noted serious levels of concern about financing this proposal.

3. The attention to transfer pathways does not address the difficulty many students still have in completing basic writing and mathematics courses required for transfer. A recent study
(Stigler, Given & Thompson, 2010) showed that community college students are typically placed one year lower in mathematics courses than might be expected based on the high school mathematics they completed. The University Committee on Preparatory Education (UCOPE) has expressed concern about the writing preparation of transfer students that will also have to be considered as a major-based transfer proposal proceeds. BOARS believes we may not see the benefits to CSU and UC access anticipated by the authors of SB 1440 and AB 2320 until these issues are addressed. This is a hot issue in some circles. The Governor and members of the Legislature have expressed concern that too many CCC students never get close to transfer, but BOARS believes that transfer policies should reflect the best interests of those who are truly ready for UC level work, not politics.

http://www.carnegiefoundation.org/carnegie-perspectives/what-were-learning/what-community-college-developmental-mathematics-students-understand-about-math

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APPENDIX I: Frequently Asked Questions

1. What is broken? Doesn’t UC already admit lots of transfers who go on to have a successful two-year career at UC?

Overall, the transfer function works very well at UC. Systemwide, the University enrolled 30% more transfer students in 2010 than it did a decade earlier. Furthermore, transfer students who come to UC succeed: Grade point averages at graduation for students who entered as transfers is nearly identical to the grade point average for those who entered as freshmen; graduation rates for transfers also parallel those for their freshmen peers; and students who entered UC as transfers graduate after 2.4 years. Actually this is quite good and UC is deservedly proud of this record.

Nevertheless, the state is concerned about maximizing the efficiency of the transfer pathway. In particular, they are concerned about increasing the number of students who successfully transfer to CSU and UC, about closing the gap in success rates between underrepresented and non-underrepresented groups, about conferring associate degrees to students on their path to a bachelors degree (in case they do not complete a bachelors degree), and about eliminating “excess units” earned by students as they navigate the complex path to transfer. While the University is unable to directly address the first three concerns, it may be able to play a role in simplifying the message to students preparing for a successful transfer.

Furthermore, BOARS is concerned that many transfers enter UC expecting to complete a major for which they have inadequate preparation. This proposal will offer them clarity early on in their Community College work as to what they need to do to succeed in a particular major. It will also enrich their experiences at UC and reduce the frustration at some campuses about excessive demands for lower division courses caused by large transfer enrollments.

Governor Brown explicitly offered the view that the “system is broken” at a CCC Board of Governors meeting, and asked during a discussion of AB 1440 what UC was doing about the transfer problem. BOARS does not want to engage in a debate about the accuracy of this perception (there are compelling reasons against it in fact, largely it is due to the vast number of CCC students who fail to complete remedial courses and therefore have no hope of ever being transfer ready.) Instead, BOARS wants to use this opportunity to adjust transfer policy in ways that benefit the transfer students and UC. By bringing major preparation into the forefront UC will be aligning its expectations of transfer students with that of the legislature when it wrote SB 1440 and AB 2302, and along with CSU will provide potential transfers a more consistent message.

2. What is wrong with IGETC? Isn’t IGETC the standard for UC and CSU transfer preparation?

There is nothing wrong with the Intersegmental General Education Transfer Curriculum, which provides a good roadmap for students to complete their breadth/general education coursework. IGETC does not provide students with advice on their major preparation. The BOARS proposal takes the point of view that UC faculty should identify what constitutes solid preparation for a major in their disciplines, and then IGETC/general education work at the community college can then be appended to this. Depending on the major, some students will be advised to complete all of IGETC, and others only a piece of it in order to ensure disciplinary courses are completed. The SB 1440 Associate of Arts degrees for transfer either must include IGETC or CSU GE Breadth, so it is possible that these students will still be completing IGETC if they want to have UC as an option.

3. Doesn’t ASSIST handle all of this? What is wrong with ASSIST?

http://www.assist.org/web-assist/welcome.html
ASSIST is an invaluable tool for counselors and students in understanding the course-to-course articulation, how individual community college courses are received by individual four-year universities. This will not change. The BOARS proposal, as well as the legislation passed last fall, operates on a higher level, at the level of a pattern of courses that adequately prepares students for transfer and timely degree completion.

4. Why would UC want to honor the SB 1440 Associate Degree for Transfer when it is meant for CSU and UC is only requested to meet the same goals under AB 2302?

UC needs to be a good citizen of the state, especially with the criticisms in the legislature and the LAO’s office that CSU and UC are unnecessarily different and complex in the requirements for transfer. It is possible that some CSU-intending students will be extremely successful in their CCC major, and subsequently learn that a UC campus has a program they would like to attend. We do not want to close the door on these students. We will guarantee them a review (not admission) if their GPA is high enough and then they will be held to the same standards as students completing a UC Transfer Curricula. BOARS believes this is a win-win collaborative posture.

5. Would transfer students who meet the criteria be guaranteed admission?

No. Only students who complete a UC Transfer Admission Guarantee program (TAG) have an admission guarantee. The TAGs are controlled by the campuses and there is no requirement that a campus have any TAGs if they don’t want them. Students who complete an AB 1440 AA Transfer Degree have a guarantee of admission to some CSU but not to UC. It will be important to communicate this clearly to potential transfers, and UC Admissions is committed to doing so.

6. Will campuses or departments be forced to honor Transfer Admission Guarantees or continue in the TAG program?

No. Campuses are free to redesign, eliminate or create new TAG’s as they choose. This is purely a local decision. BOARS hopes that campuses will create TAGs where appropriate because they do provide CCC students a target of courses to complete if they want to attend UC. But no campus will be forced to develop a TAG.

7. Will UC departments continue to have the freedom to require specific major preparation?

Yes. Nothing changes as far as campus requirements for admission to any major or degree completion. The AB 2302 work of the seven high demand majors (see the interim progress report, Appendix IV) indicates how BOARS believes the process will play out where agreement wasn’t perfect but the alignment of expectations across the system was quite good. To the extent possible, a common core of requirements for a major will be identified system-wide and this will become the UC Transfer Curricula. Departments at any campus will have the option to add or change requirements or expectations if they so choose. It is also the hope that these changes will be kept to a minimum, because then we will communicate clear system wide expectations which is closer to the spirit of AB 2302, and campuses could specify on ASSIST which courses students could take to be more fully prepared and therefore the most competitive in review.

8. Will UC faculty and departments be forced to adjust their curriculum to align with a specific common template?

No. Even with the far more rigid requirements that the legislature has placed on CSU, they are not doing this. All UC departments will continue with their programs and retain full autonomy. All that we are going to ask is that departments try to be flexible in how they set requirements for transfer admission at their campuses because CCC students often do have difficulty finding specialized courses. If it is
possible for them to find a path though a major when a course is missing then we shouldn’t set up a barrier that would block an otherwise strong and committed student from attending UC. Also, it is to our advantage if campuses can agree on a common UC Transfer Curricula for as many majors as possible because it delivers a more coherent UC message and increases the likelihood students will follow it.

9. Will CSU and CCC be dictating or influencing UC curriculum?

Absolutely not. The CCC’s are working with CSU faculty to design Transfer Model Curricula (TMC) as part of the C-ID and UC has been fully invited to participate in this process (although UC attendance has not been very good.) To the extent that the UC Transfer Curricula align with the TMC, it will be nice for prospective students, but there will be no requirement to do so. One possible outcome for many majors will be to take the TMC and then possibly add a course or two, and in this way we can communicate the message for UC intending students to do this extra work for us. But there will be no requirements that the UC Transfer Curricula align with the TMC.

10. How will you know the policy is a success?

A first sign of success will be if UC starts evaluating the majority of transfers on major based criteria instead of the approximately one-half we currently do. If we do this, and if we have no trouble meeting enrollment targets, then that will be a solid measure of success. Second it would be nice to see the 2.4 year graduation rate for transfers decline (although this is already a pretty good number.) Third, if research funding is available, it would be nice to determine if the percentage of transfers that complete the major they originally intended upon entry goes up. More generally, if the number of CSU/UC transfer-ready CCC students rises over the next five years, that would measure the success of all three systems working together on SB 1440 and AB 2302. The irony is that unless the funding situation changes there may not be space to accommodate these additional students. But it would mean that UC can be more selective and choose stronger transfer students.

11. What are the obstacles to implementing this policy?

First, successful implementation will require departments to spend time and effort identifying the kind of background they want transfer students to have when they enter their majors. In other words, the key here is to have sufficient “buy–in” at the faculty and departmental level. This may be relatively easy in some majors that only want IGETC completed along with a short list of other courses. But majors with more complex requirements may have to be judicious about their requests because CCC students have limited access to certain courses in some fields and this will take some effort to flesh out. Then departments will have to be willing to work with Admissions Offices at their campuses to identify a set of values by which they want potential transfers to be evaluated. This will require some up-front time for departments who have not been doing this, as well as ongoing communication to sustain the process and to identify areas where they are willing to be flexible when a strong student applies may be missing a minor requirement. Experienced Admissions staff will carry out the evaluation of transfer applications, although they probably won’t object to as much help as help as a department wants to provide.

Second, adequate funding and staff will have to be provided to Admissions Offices, because transfer applications are more expensive to process. This will require adequate backing from each campus administration. During 2011-12 the freshman admissions process will be going through major revision that will require additional staff. The application fee will also increase from $60 to $75. So as this proposal goes through targeted review and a final version is being prepared we will have a good indication of the extent to which campus administrations are willing to invest in modernizing UC’s admissions processes. BOARDS will update its funding metric if necessary to address this more specifically if the proposal goes forward.
APPENDIX II: BOARS Statement and Metric on Admissions Funding

BOARD OF ADMISSIONS AND RELATIONS WITH SCHOOLS
ADMISSIONS FUNDING PRINCIPLES AND METRIC
May 2011

Background:
In 2011-12, UC will adopt the “Funding Streams” budget model at the same time that the new freshman eligibility policy takes effect. The new policy is expected to increase the size of the applicant pool significantly, and BOARS is concerned that campus admissions offices may have access to fewer resources under Funding Streams just as they face a much greater workload demand. BOARS surveyed the nine undergraduate campus admissions offices to gather information about the personnel they require to properly complete review, selection, recruitment, and yield work. BOARS learned that some admissions offices are involved in a variety of projects not always directly related to admissions, such as managing Visitor Centers and shuttle bus systems, and assisting the Registrar with course and degree validation for current and entering students. These variations make it impossible to make precise comparisons of the work or financial requirements of admissions offices across campuses. Therefore, this document outlines only the resources BOARS has determined are necessary to properly complete work directly related to review, selection, recruitment, and yield as the University moves into the 2011-2012 academic year.

In general, individualized review requires readers to spend 7 to 10 minutes on each freshman application and 15 to 20 minutes on each transfer application. It takes slightly longer to review domestic non-resident applicants and up to an hour to review international applications, which also require specialized staff. Transfer applications take twice as long and cost twice as much to evaluate because transfers typically enroll in multiple community colleges, and the complexity of the information presented makes it impossible to use seasonal staff to evaluate them.

Campuses vary tremendously in the extent to which they review completion of lower division major requirements for transfer admission. On average across the system, about 45% of transfer applications include a major preparation evaluation, although individual campuses range from 0% to 100%. Most transfers who are evaluated for specific pre-major courses are entering STEM disciplines (especially engineering). Until recently, even the more selective campuses were admitting most eligible transfer applicants without a review of major preparation.

It appears that moving to single-score holistic review of freshman applications will not increase average read times significantly. Moreover, campuses that are able to use shared scores from Berkeley or UCLA for some applicants should see a reduction in total read times.

Three campuses reported no difference in the time required for major-based or non major-based transfer reviews, and three estimate a 25-50% increase in time for major-based reviews. All agree that in contrast to freshman reads there is tremendous variation in the read times of transfer applicants, and that this difference has less to do with major-preparation than with the diversity of courses and regulations that need to be considered. BOARS also learned that departments often help design major-based transfer review, but most are reluctant to assist in the actual read process. Admissions offices must have adequate funding for the transfer read process in addition to the freshman read process.
**Funding Principles and Metric:**

BOARS intends the following principles to guide admissions directors as they engage their administrations in budget discussions regarding the funding of undergraduate student recruitment, review, selection, and yield.

1. Application fees should be understood as a fee collected for the specific purposes of funding recruitment, review, selection, and yield work with applicants and potential applicants. BOARS rejects efforts to label application fees as a “revenue source,” because this increases the likelihood that the fees will be used for other purposes, and thereby weakens the ability of campus admissions offices to carry out their primary functions.

2. UCOP should notify BOARS and the campuses annually about the funding campuses will receive under Funding Streams per application in the form of total fees received divided by the number of applicants. This will allow each campus to calculate the total fee revenue received based on its applicant numbers, and allow admissions directors to ask their EVCs for these funds as a baseline for review, selection, recruitment, and yield work. Additional duties carried out by admissions offices in service of their campus not directly related to review, selection, recruitment, and yield should receive supplementary funding.

3. Because campus admissions offices carry out a myriad of duties, this metric sets guidelines only for sufficient personnel to carry out review, selection, recruitment, and yield activities. These duties are carried out in different seasons; review and selection in December through April, recruitment between August and November, and yield between February and May. It is typical at all campuses for the same staff to engage in all three activities in addition to helping the Registrar in spring and summer. Full-time staff are necessary for this work and the seasonal distribution of their work carries with it obvious efficiencies.

3A. Many campuses will need to continue the practice of hiring back retirees because the steep learning curve to handle special applications prevents campus admissions directors from using temporary staff for many tasks. UCOP can assist by streamlining the exemption process for recalling experienced retirees during applicant selection season (December through March). This is particularly critical for the fall 2012 admissions cycle, due to the uncertain outcome of the applicant pool increase. Campuses need extra flexibility.

4. In view of the above considerations and data supplied by the campuses, BOARS has determined that the following resources are essential to the proper management of review, selection, recruitment, and yield.

   A. Campuses should maintain a ratio of approximately one permanent staff member for every three external (non admissions staff) readers to adequately supervise the freshman read processes. Approximately 8 to 10 minutes should be scheduled for each read. While the number of reads per reader will vary, BOARS suggests that the average not exceed 1,000 per reader. If each file is read twice, this means a campus should have a permanent staff member and three external readers for every 2,000 freshman applications received. The four
B. Transfer applications should be read by full-time admissions staff (or other experienced personnel, such as retired admissions staff), as it is too complicated for temporary staff to handle. Approximately 15 to 20 minutes should be scheduled for each transfer application, with major-based and out of state applicants requiring more. Depending upon how other workload is distributed, there should be a dedicated staff member for every 1,000 to 2,000 transfer applications. These staff members usually work on freshman applications earlier in the cycle.
APPENDIX III: Summary of Statewide Transfer Issues for Admissions Officers and Faculty

In recent years, the State has signaled a strong interest in strengthening student transfer between the public segments of higher education in California. The push for a more transparent transfer function is driven by a concern that the process is too complicated for students to navigate, leading to them taking “extra” courses, which result in greater costs to the students and to the State. Below are some statewide transfer initiatives that have surfaced in response to these concerns and that affect the work of UC Articulations Officers and faculty.

C-ID (Course Identification Numbering System)
C-ID is an intersegmental effort led by the California Community College (CCC) Academic Senate designed to develop a common course numbering system to facilitate course articulation. Their website is www.c-id.net.

1. The project begins by developing “course descriptors,” which provide a broad outline of course content and learning objectives. Descriptors are developed by an intersegmental group of discipline faculty.
2. Then CCC faculty voluntarily submit individual course outlines to be measured against the descriptors. Courses can be approved or denied for the C-ID number. If approved, the course then has two course numbers – the one for the local campus and the statewide C-ID course number.
3. Once courses have been assigned a C-ID course number, four-year institutions are encouraged to rely on C-ID numbers and descriptors to establish articulation rather than reviewing individual course outlines.
4. The C-ID course descriptors are also serving as the basis for the Transfer Model Curricula (see below).

What is UC’s involvement?
To date, the California State University (CSU) and CCC faculty have been much more involved than UC faculty. UC faculty have served on the steering committee and a handful have reviewed courses. However, it is important to note that UC has not committed to “Step 3” above, using C-ID descriptors to make articulation decisions.

Should UC faculty be involved?
The Office of the President and the systemwide Academic Senate encourage faculty involvement in the review of descriptors online or at the in-person meetings, especially as the C-ID descriptors begin to have more influence statewide over the Course Outlines of Record for community college courses. We are hopeful that the UC Transfer Streamlining Task Force groups might serve as an effective way to generate coordinated UC feedback on C-ID and the TMC (see below), but we also encourage individual faculty involvement.

Why should UC faculty participate?
The C-ID Project has become the vehicle for statewide discussions with CCC faculty on the content of lower-division coursework and curriculum (see below under Transfer Model Curriculum). UC faculty interests in preparing transfer students well for upper-division coursework will be served by good choices made by C-ID committees on what should be the required content of basic lower-division courses. As C-ID states, “Most importantly, the descriptors seek to establish a common understanding of course expectations that will ultimately improve student success.”

Associate Degrees for Transfer (SB 1440) and Transfer Model Curricula (TMC)
In September of 2010, Governor Schwarzenegger signed into law two pieces of legislation on transfer: Senate Bill 1440 (Padilla) and Assembly Bill 2302 (Fong). The first bill requires the CSU to guarantee admission and junior-level status to CCC students who complete an associate degree within a specified major. This bill further mandated the structure of these degrees, which must include general education and a minimum of eighteen units of major preparation. The second bill requests UC to design a similar path in order to guarantee eligibility for admission (see Transfer Streamlining below).
The C-ID Project is working to create Transfer Model Curricula (TMC) that will guide local community college development of Associate of Arts for Transfer (AA-T) and Associate of Science for Transfer (AS-T) degrees. TMC in mathematics, communication, sociology, and psychology have been completed. Several other TMC are under review now.

**What is UC’s involvement?**
Because it is not named in the legislation, UC has not participated in the implementation of SB 1440. UC faculty have been invited to the TMC development meetings, but it is likely that the University will use the Transfer Streamlining Task Forces (see below) to provide its feedback regarding TMC development. The fact that the C-ID Project is managing the TMC development has caused some confusion as they have reached out to UC faculty for comment on both initiatives.

**UC Transfer Streamlining Task Forces and AB 2302**
As mentioned above, UC was asked to explore the transfer associate degree pathway in AB 2302. An interim report is due to the Legislature by June 30 and a final report by December 31, 2011. UC began by conducting an internal conversation first, convening UC faculty groups to discuss lower-division major preparation by discipline across the system. These groups – called the Transfer Streamlining Task Forces – included representatives appointed by the departments on each campus. Each Task Force explored the existing commonalities across the nine UC campuses and provided rationales for the differences. The groups also provided feedback on the TMC and, in some cases, the C-ID descriptors.

The UC Board of Admissions and Relations with Schools (BOARS) is also currently discussing a potential policy that would **guarantee eligibility for review** of any transfer student’s application for admission who has completed such a degree; eligibility for review requires a careful evaluation of the application, but does not guarantee admission. This policy would parallel the recent change in admission policy at the freshmen level, which promises a full review of students’ applications if they meet minimum criteria.

**What were the outcomes of the Transfer Streamlining Task Forces?**
The Task Forces identified a “common core” of lower-division major preparation that would prepare students for upper-division coursework at all nine campuses. This core set of courses forms the basis for the UC feedback on the Transfer Model Curricula and will be highlighted in new transfer advising tools in order to make the preparation for transfer to the University more transparent to students and the public.

**How does this relate to C-ID and SB 1440?**
Feedback from the Task Forces will be summarized by UCOP for the faculty and administrators at the CCC. Depending on the timing of this feedback, it may help influence the development of the TMC or it may be useful to the individual districts as they design their associate degrees based on the statewide models. It is generally agreed that any future meetings should involve quicker feedback into the C-ID and TMC processes.

**Will these Task Forces continue to meet?**
Task Force participants generally reported the experience was useful, especially having the opportunity to discuss lower-division curricular issues with their colleagues across the system. The systemwide Academic Senate is supportive of expanding the meetings to include all of the top 20 transfer majors.

**How will potential changes to admission policy affect campuses ability to select students?**
Changes to UC admissions policy will continue to be reviewed by faculty committees (e.g., BOARS) and administrative bodies (e.g., admissions offices). Given the specialized nature of UC’s degrees, the rigor of the upper-division coursework, and the way in which degree requirements are tied closely to individual campus research priorities, UC campuses will retain local admission and degree requirements. Students will be advised to consult ASSIST and campus websites as they narrow their options to fully understand local requirements.
The Honorable Mark Leno  
Chair, Joint Legislative Budget Committee  
1020 N Street, Room 553  
Sacramento, California 95814

Dear Senator Leno:

Pursuant to Section 66721.8 of the Education Code, enclosed is the University of California’s interim progress report to the Legislature on Implementing AB 2302 (Fong): Associate Degree Pathway to the University of California.

If you have any questions regarding this report, Associate Vice President Debora Obley would be pleased to speak with you. She can be reached by telephone at (510) 987-9112, or by email at Debora.Obley@ucop.edu.

With best wishes, I am,

Sincerely yours,

Mark G. Yudof  
President

Enclosure

cc: Mr. Gregory Schmidt, Secretary of the Senate  
Ms. Jody Martin, Joint Legislative Budget Committee  
Ms. Tina McGree, Legislative Analyst’s Office  
Ms. Sara Swan, Department of Finance  
Mr. Dotson Wilson, Chief Clerk of the Assembly  
Ms. Amy Leach, Office of the Chief Clerk of the Assembly  
Ms. Diane Anderson, Legislative Counsel Bureau  
Provost and Executive Vice President Lawrence Pitts  
Executive Vice President Nathan Brostrom  
Vice President Patrick Lenz  
Vice President Judy Sakaki  
Associate Vice President and Director Steve Juarez  
Associate Vice President Debora Obley  
Executive Director Jenny Kao
An investment in UC pays dividends far beyond what can be measured in dollars. An educated, high-achieving citizenry is priceless.
EXECUTIVE SUMMARY

In September of 2010, Governor Schwarzenegger signed into law two pieces of legislation on the California Community College (CCC) transfer function in California: Senate Bill 1440 (Padilla) and Assembly Bill 2302 (Fong). Together the bills create an associate degree pathway for transfer in California. The second bill – AB 2302 – requests UC participate in this path in order to guarantee eligibility for admission, as well as continue its work on the Transfer Admission Guarantee program and statewide articulation of community college courses (see Appendix 1). The University has been an enthusiastic supporter of both bills and of the smoothing of the transfer function in California.

Section 66721.8 of the California Education Code (Chapter 427, AB 2302, Statutes of 2010) reads in part:

“(d) The University of California is requested to provide an interim progress report on its review of the various transfer pathways discussed in this section to the relevant policy and fiscal committees of the Legislature on or before June 30, 2011, and to provide a final report to those committees, with specific findings regarding the University of California’s implementation of those transfer pathways, no later than December 31, 2011.”

In compliance with AB 2302, this report outlines the University’s progress in exploring the implementation of a systemwide policy on transfer admission that utilizes the associate degree pathway. Highlights of this progress include:

- **UC Common Core of Major Preparation**: UC identified a common core of major preparation that students should complete in seven disciplines in order to be both well-positioned to gain admission and well-prepared to complete a degree in a timely fashion.

- **Guarantee of Comprehensive Review for Admission**: AB 2302 requests UC guarantee eligibility for admission to students with approved associate degrees. The Board of Admissions and Relations with Schools (BOARS) is currently discussing a policy that would guarantee a comprehensive review of any transfer student’s application for admission who has completed an approved associate degree for transfer (as outlined by SB 1440) in the major to which they are applying or who has completed the relevant UC common core with a grade point average above a specified level. This policy would parallel the admission policy at the freshmen level, which promises a comprehensive review of students’ applications if they meet minimum criteria (see Appendix 2). BOARS also strongly endorses the Transfer Admission Guarantee (TAG) program as a way to advise transfer students to prepare for admission and timely degree completion.

- **Feedback Provided to California Community Colleges**: While the promise of a review currently under consideration (above) would apply to students who earn an associate degree approved under SB 1440, the University has shared its faculty’s feedback on the Transfer Model Curricula that have been developed or are currently under development (see Appendix 3).
• **Improved Online Transfer Student Counseling Tools:** UC is planning to develop a dynamic website that provides students with advice tailored to their interests as well as their stage in the transfer preparation process.

• **Continued Improvement of Existing Transfer Efforts:** While the development of an associate degree pathway embodied in SB 1440 and AB 2302 is the newest feature of the transfer function, it is important to remember that the bill also asked UC to strengthen existing initiatives in transfer. The University has done so with its Transfer Admission Guarantee (TAG) Program, statewide articulation, and support for ASSIST. The TAG application was moved online, which provides instant feedback on basic eligibility and has the strong potential for an online counseling tool. All three segments of public higher education have committed funding and staff resources to the development of an improved and expanded ASSIST database (www.assist.org). Currently, completion of an associate degree is not an admission requirement at the University.

Given the specialized nature of UC’s degrees, the rigor of the upper-division coursework, and the way in which degree requirements are tied closely to individual campus research priorities, the University’s participation in the associate degree pathway will differ in some significant ways from the way in which the California State University will participate. Namely, while the University is aiming to guarantee a comprehensive review for admission to transfer students who have completed associate degrees for transfer in similar majors, it will not be able to guarantee selection for admission. Furthermore, it will not be able to guarantee that students will be able to graduate within 60 units after transfer in all majors on all campuses.

Finally, it is important to remember that UC currently is very successful in its support of transfer in California. In 2009-10, UC enrolled 30% more transfers (16,784) than it did ten years earlier (12,908). In fact, it has continued to increase the number of new transfers in the past two years at the same time that it has been forced to curtail the enrollment of new California freshmen.

Transfer students who come to UC perform well, persisting and graduating at rates similar to students who enter as freshmen. The average time-to-degree for transfer students is just over two years (2.4) after coming to the University (average time-to-degree for freshmen is 4.2 years). Transfer students continue to be a successful and valued part of the UC community.
BACKGROUND

In September 2010, Governor Schwarzenegger signed into law two pieces of legislation on the California Community College (CCC) transfer function in California: Senate Bill 1440 (Padilla) and Assembly Bill 2302 (Fong). The first bill requires that the California State University (CSU) guarantee admission and junior-level status to CCC students who complete an associate degree within a specified major. The second bill – AB 2302 (Fong) – requests UC design a similar path in order to guarantee eligibility for admission, as well as continue its work on the Transfer Admission Guarantee program and statewide articulation of community college courses (see Appendix 1). The University of California supports the development of the associate degree pathway for three reasons:

- The State has signaled its strong interest in developing a transparent pathway for transfer between the CCC and the public four-year institutions which facilitates students earning an associate degree along the way.
- To the extent that potential CCC students are unclear about which campus or segment of public higher education they are interested in transferring to, the associate degree pathway provides a clear roadmap early in their careers.
- To the extent that students choose the associate degree for transfer route – which includes at least 18 units of major preparation – the University may see better-prepared students in disciplines where major preparation is not currently a pre-requisite for admission. This could have the effect of reducing time-to-degree for transfer students in these majors, improving efficiency and saving money for both the students and the State.

As with all decisions on student transfer, in exploring UC participation in the associate degree for transfer pathway, the University focused on both simplifying the process for students before transfer while also ensuring adequate preparation for success in the major after transfer (see Principles below).

PRINCIPLES

The following principles guide UC’s participation in developing transfer eligibility based upon the associate degree.

- **Faculty-driven**: Admission and curricular criteria are the purview of the faculty. As such, it is appropriate for the faculty, with staff support, to develop eligibility standards.
- **Preparation**: Transfer paths developed should be constructed so as to adequately prepare transfer students for upper-division coursework in their selected major.
- **Student-Centered**: The associate degree path to transfer admission must be designed to provide a simple, clear message to CCC students about what is required.
- **Extensible Participation**: The University should explore where it can participate in the Associate Degree pathway immediately, e.g., some majors or some campuses, and explore expanding participation over time.
• **Collaborative Approach**: UC faculty and staff should look for collaborative ways to develop the pathway with their CSU and CCC counterparts.

**PROGRESS**

Given that transfer students arrive mid-way through their degree, it is entirely appropriate UC begin consultation with faculty groups by discipline. Beginning in fall 2010, the University of California Office of the President convened faculty from all nine undergraduate campuses to discuss lower-division major preparation in five disciplines: mathematics, biology, history, psychology, and computer science; sociology and physics convened in spring 2011. The goal of the meetings was to identify whether a common core set of courses existed at UC campuses that could serve as the basis for an associate degree within the major. Major-specific summaries of these meetings are included in this report.

The University’s strategy was to conduct this internal work before engaging with the CCC or CSU. At the same time, however, the CCC and CSU have been quickly developing Transfer Model Curricula (TMC) that will serve as the basis for associate degrees as mandated by SB 1440. Feedback from UC faculty has been summarized by the Office of the President for the faculty and administrators at the CCC.

Finally, the Board of Admissions and Relations with Schools (BOARS), the UC-wide faculty committee with responsibility for University admissions policy, is in the process of considering a systemwide policy to guarantee a comprehensive review of any application from a student who has earned an associate degree for transfer.

**OUTCOMES**

There are four specific outcomes of this work that are either in progress or completed.

1. **UC Common Core of Major Preparation** (*complete in convened majors*): The first outcome of the meetings was to identify a common core of major preparation that students should complete to help them both be positioned to gain admission and complete a degree in a timely fashion. In most cases, students should still consult UC campus-specific lower-division requirements to be most competitive for admission and well-prepared for timely graduation. Nevertheless, the common core will serve as an effective roadmap for students early in their career.

2. **Guarantee of Comprehensive Review for Admission** (*under review*): AB 2302 requests the University to guarantee eligibility for admission to students with approved associate degrees. The UC Board of Admissions and Relations with Schools (BOARS) is currently discussing a potential policy that would guarantee *comprehensive review* of the application for admission of any transfer student who has completed a SB 1440 degree or who has completed the UC common core in a similar major (see Appendix 2 for draft discussion papers on this item).
Eligibility for review contemplates a comprehensive review of the application, but does not guarantee admission to the campus or major.

This policy would parallel the recent change in admission policy at the freshmen level, which promises a full review of students’ applications if they meet minimum criteria. This policy allows students to use the associate degree path for course selection early in their career, although specialized advice may still be recommended in some degrees (see below).

3. **Feedback Provided to California Community Colleges** *(ongoing)*: While the promise of a review currently under consideration (#2 above) would apply to students who earn an associate degree approved under SB 1440, the University has shared faculty feedback on the Transfer Model Curricula that have been developed or are currently under development. While UC feedback has been provided after the finalization of most of the TMC in the disciplines that convened, it is hoped that the input will inform future revisions of the TMC or local CCC districts as they develop their associate degrees. For example, UC mathematicians expressed their strong preference for Linear Algebra and Differential Equations courses over other math courses identified as options in the TMC. See Appendix 3 for sample feedback on the math TMC. This analysis will also provide a framework to inform students about variable requirements for a major at a particular UC campus.

4. **Improved Online Transfer Student Counseling Tools** *(planned)*: Current UC advising tools on transfer preparation – the Statewide Transfer Preparation Paths – are static and extremely detailed. Following up on the UC faculty discipline meetings, it has become clear that transfer preparation paths have more similarities than differences, something obscured by the overwhelming level of detail on the existing tools.

Therefore, the University is currently planning to develop a dynamic website that provides students with advice tailored to their interests as well as their stage in the transfer preparation process. For example, students who are just beginning community college could see the common core required for preparation across the UC system in a given major. As students narrow their focus, they could “drill down” to see detailed differences between campuses.

5. **Continued Improvement of Existing Transfer Efforts** *(ongoing)*: While the development of an associate degree pathway embodied in SB 1440 and AB 2302 is the newest feature of the transfer function, it is important to remember that the bill also asked UC to strengthen existing initiatives in transfer.

a. In 2010, the UC campuses collaborated to create a systemwide online application for their Transfer Admission Guarantee (TAG) Program. The TAG tool allows students to secure a guarantee of admission to seven of the nine UC campuses (UCLA and Berkeley do not participate) and see an online summary of their coursework, grade point average, and transferrable college units. Community college transfer students can begin
entering their coursework into the tool in their freshmen year, creating the opportunity for early counselor intervention. As the tool develops in future years, more sophisticated logic will offer the potential for a fully online counseling tool and pre-populate the UC application for admission.

The implementation of the online TAG tool increased applications for the TAG program in 2011 two- to three-fold over the prior year. The ease of the new application and the popularity of the program among students nearly compromised some campuses’ ability to accommodate the sheer number of guarantees that they issued. As a result, beginning in fall 2012 students will be asked to pick one campus for a guarantee, although they will still be able to apply for regular admission to all nine campuses.

The UC Board of Admissions and Relations with Schools (BOARS) has expressed strong support for the TAG program.

b. The University continues to maintain and expand its statewide articulation agreements. Beginning in 2005, the nine UC campuses set the goal to create articulation agreements with all 112 community colleges. This has been accomplished and articulation agreements are all publicly stored on the ASSIST web site.

c. UC, along with its funding partners – the CCC and CSU – has begun to reengineer the ASSIST database and website. Begun on the Irvine campus over twenty years ago, ASSIST (Articulation System Stimulating Interinstitutional Student Transfer) is one of the longest-running and most successful tools for transfer in California. Today, California’s three segments of public higher education jointly fund and manage ASSIST and UC serves as the fiscal agent.

ASSIST is the official repository for all articulation between the public segments. It is both a database that provides the backbone for other transfer tools, e.g., the new online TAG tool and the UC application for admission, as well as a website for counselors and students: www.assist.org.

The reengineering of ASSIST is referred to as “ASSIST: Next Generation.” A Request for Proposal (RFP) that all three segments jointly drafted was released on June 17, 2011. Full implementation of the chosen solution is scheduled for May 2013.

Next Generation will provide ASSIST with a more flexible and modern database to power campus systems and other transfer tools, as well as a work-flow feature that will create efficiencies on campuses. Most importantly, the new ASSIST website will be more user-friendly and offer features for students and counselors to compare articulation agreements across the state.
CHALLENGES AND NEXT STEPS

Given the specialized nature of UC’s degrees, the rigor of the upper-division coursework, and the way in which degree requirements are tied closely to individual campus research priorities, the University’s participation in the associate degree pathway will pose some challenges.

- **Uniformity Is Difficult in Some Majors**: The nature of some disciplines is such that uniformity across UC or between UC and CSU in the lower-division courses that best prepare students for work in the upper-division is difficult. A good example is in the popular field of psychology, which covers a broad range of approaches. Most, but not all, UC campuses focus on the biological basis of psychology. Therefore, natural science courses like biology and chemistry are much more useful for preparation for transfer to some campuses than additional social science courses. Preparation that focuses on social psychology, e.g., the current TMC in psychology, could leave students unprepared for coursework at most UC campuses.

- **General Education Versus Major Preparation**: In hard sciences, UC faculty were uniformly concerned about the focus in the associate degree structure of completing CSU Breadth Requirements or the Intersegmental General Education Transfer Curriculum (IGETC), which forces students to take a very large portion of their major requirements post-transfer. In some fields, this means a very heavy load of science and math, which can lead to more frequent scheduling problems and academic “burn out.” It may be best for students who know that they wish to study a hard science to not complete an associate degree and instead focus on the lower-division major preparation for their intended discipline. Furthermore, for students seeking transfer to a highly selective campus, lack of lower-division major preparation may disqualify them from admission. These students can still complete a significant portion of their general education at community college.

- **IGETC Versus CSU Breadth**: It remains the preference of UC faculty that students complete IGETC rather than CSU Breadth. Therefore, it is hoped that students completing associate degrees will have the option to do so with IGETC at the base of their degrees.

- **60 Unit Goal Is Difficult in Some Disciplines**: While each faculty group strongly supported the goal of timely graduation, some disciplines were more confident that students transferring with the associate degree structured like the TMC could do so. For example, historians and sociologists were confident that students could complete a bachelor’s degree within 60 units after transfer, while physicists were equally confident that transfer students with the preparation afforded by the TMC would need to plan on three years to graduation.

Next steps in this process include the following:

- Convene additional disciplines in fall 2011.
- Build strong connections with faculty groups from other segments for future disciplines earlier in the process in order to contribute UC perspectives on the development of TMC.
- Develop online tools for students that leverage the “UC Common Core” to more effectively advise students and counselors.
- Continue systemwide conversations about the admissions guarantee and implementation.

SUMMARY OF UC FACULTY MEETINGS

All seven disciplines agree that:

1. There already exists a common core of coursework in each discipline that allows students to simultaneously prepare for multiple campuses.
2. Some campus-specific requirements fall outside the common core, although this variability is generally limited to one or two courses.
3. Variation in lower-division requirements is sometimes the result of non-academic factors. For example, the Merced campus curricular decisions are sometimes constrained by the number and types of faculty available to teach.
4. All groups expressed support for streamlining the path to transfer, although in some disciplines there was concern expressed about difficulty in transitioning to the higher demands of UC curricula, both because of the rigor of UC courses and the concentrated timeframe for campuses on the quarter system. Interest was also expressed in a “summer before” transition term for transfers, i.e., encouraging transfer students to enroll at a UC campus prior to their first fall in order to get used to the rigor and pace of UC coursework.

Appendix 4 names the participants in each of the discipline meetings.

Mathematics

The Mathematics Transfer Streamlining Task Force convened on November 18, 2010. The task force identified a common core of coursework that would satisfy lower-division major requirements across the UC system. While not all these courses are required for admission, all are (at most campuses) required lower-division coursework for degree completion.

<table>
<thead>
<tr>
<th>UC-Wide Mathematics Common Core</th>
<th>Most Campuses</th>
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<tbody>
<tr>
<td><strong>All Campuses</strong></td>
<td></td>
</tr>
<tr>
<td>Calculus – Full Sequence (3 sem/4 qrts)</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>Linear Algebra</td>
<td>Computer Programming</td>
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<tr>
<td>Differential Equations</td>
<td>Additional Science (particularly physics)</td>
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Three examples of campus variation from the common core were identified. In all cases, the representatives agreed to take the concern about the variability back to their campus, but faculty also suggested that there are clear rationales for the requirements. Furthermore, given the limited nature of the variation, it was not deemed a significant barrier for transfer students.
1. Davis requires a proof-based advanced linear algebra class that has few articulated courses at community colleges. The Davis faculty feel strongly that lower-division proof-based work prepares students for the upper-division work required in the major.
2. UCLA requires its own C++ programming course to be taken post-transfer.
3. While most campuses that require additional science courses offer some flexibility, Santa Barbara requires that math majors take physics.

The math group expressed concern that transfer students are advised to complete their general education (i.e., IGETC) at community college since the best preparation for transferring as a math major would include a focus on major preparation, allowing transfer students to spread difficult math and science courses over four years rather than leaving substantial lower-division coursework to be done in the last two years along with upper-division requirements.

**Biology**

The Biology Transfer Streamlining Task Force convened on November 19, 2010, identifying a common core of coursework that would satisfy lower-division major requirements for degree completion, if not for admission.

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<tr>
<th>UC-Wide Biology Common Core</th>
<th>All Campuses</th>
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<tbody>
<tr>
<td>General Biology (full sequence w/lab)</td>
<td></td>
</tr>
<tr>
<td>General Chemistry (full sequence)</td>
<td></td>
</tr>
<tr>
<td>Organic Chemistry (full sequence)</td>
<td></td>
</tr>
<tr>
<td>Calculus (generally full sequence)</td>
<td></td>
</tr>
<tr>
<td>Calculus-based Physics</td>
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<td>Statistics</td>
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Two examples of campus variation from the common core were identified. Irvine and UCLA both require lower-division genetics and molecular biology courses separate from the introductory biology sequence, though UCLA was interested in revisiting this structure.

In addition, it was noted that students who complete less than a full-year sequence of general biology at community college can run into challenges because the sequencing of topics during the year can vary from campus to campus. For this reason, most UC campuses articulate only full sequences of biology courses taken at a single community college to a full sequence at UC. The group concurred that advice to students should include taking the full sequence at the same college.

As with the math group, the biology group expressed concern that students are advised to complete their general education (i.e., IGETC) at community college. The group concurred that transfer students often are surprised by the level of rigor in UC biology classes, but that they adjust quickly. Finally, biology curricula at UC are driven in part by medical school requirements and changes must take this into account in order to not disadvantage graduates intending to apply to medical school.
History
The History Transfer Streamlining Task Force convened on December 9, 2010. The historians made a strong case that its requirements do not create significant barriers for transfer students. As one participant stated, history is a way of thinking and writing. Therefore, while each UC campus has a different emphasis on periods of history or the history of various regions, specific content is less important than understanding the historical method. Another participant characterized the apparent variation seen in lower-division major preparation as an outgrowth of their “catholic” approach to lower-division work.

While there did not appear to be a common core of courses required at all campuses, there were two sequences listed below that individually or together would meet some or all of the lower-division requirements across the system. Students taking these sequences could be assured that they would be accepted as part of the lower-division major preparation and set them on the right path in completing a history baccalaureate degree at any UC campus:

- One full-year of U.S. History
- One full-year of World History

The UCLA campus requires a lower-division historical methods class that must be taken post-transfer, and a similar requirement is under consideration at Riverside. However, given that the difference in requirements is only one course, there was no concern that this would negatively affect students’ time-to-degree.

While supportive of streamlining transfer requirements, the group did express concerns that students are “shocked” by the rigor of history courses at the University, motivating the group to provide feedback to on course content and delivery through the community college common course numbering project (C-ID), which is in the process of developing statewide course descriptions. They are especially concerned with the greater emphasis on content in the community college courses and the corresponding de-emphasis of rigorous reading and writing skills.

Historians did not feel that IGETC completion was a barrier for students, and suggested intended history majors work to complete it before transferring.

Psychology
The Psychology Transfer Streamlining Task Force convened on December 10, 2010. This discipline was, in some ways, the most challenging. As the task force pointed out, the term “psychology” refers to a very broad set of topics and approaches. For example, the approach at the UC Santa Cruz campus has a more clinical focus, while the approach at the Davis campus focuses almost entirely on biological psychology. Furthermore, baccalaureate degrees at UC have a very strong experimental/biological focus, which is not necessarily matched by the approaches at the community colleges.

Nevertheless, the following common core was identified. Again, not all these courses are required for admission, but are (in general) required lower-division coursework for degree completion.
Campus variation was more significant in psychology than in the other disciplines (refer to the Transfer Preparation Paths for details). However, this discipline also has strong rationales for the variation; psychology degrees at each UC campus are different from one-another, both in approach (clinical vs. biological) and in the research done by faculty.

The psychologists did not express concerns about IGETC completion by transfer students, but did express concern that transfer students in psychology do not fully understand the discipline as taught at UC. Specifically, students often expect more of a “social science approach” even at campuses with a heavy focus on biological psychology.

**Computer Science**

The Computer Science Transfer Streamlining Task Force convened on December 17, 2010, also to identify a common core of coursework that would satisfy lower-division major requirements across the UC system. While not all these courses are required for admission, they are required lower-division coursework for degree completion at most campuses.

The biggest challenge for students trying to prepare broadly for UC campuses in computer science is that some campuses prefer Java as a programming language and others prefer C++. However, the computer scientists agreed that depth of understanding and up-to-date of study in a programming language is critical to transfer preparation, and suggested establishing transition courses for students who need to learn another programming language.

As with the math and biology groups, the computer scientists expressed concern that students are advised to complete their general education (i.e., IGETC) at community college, as a strong background in mathematics is key for transfers interested in computer science at UC.
Sociology
The Sociology Task Force was convened on April 29, 2011. Like UC historians, the sociology task force agreed that the rigor of the courses and the opportunity for students to learn critical thinking and writing skills was more important than the specific content of the courses. Therefore, while some campuses require specific sociology courses (e.g., global issues, social problems), the group felt that good preparation involved a small core of courses – introductory sociology, statistics, and research methods. As one attendee later described it, he would “encourage courses that assist in writing skills and interpretation of social science articles and research along with some basic quantitative skills. This would be more important to success at UC than taking strictly taking sociology courses.”

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<tr>
<th>UC-Wide Sociology Common Core</th>
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<tbody>
<tr>
<td><strong>All Campuses</strong></td>
<td><strong>Most Campuses</strong></td>
</tr>
<tr>
<td><strong>Introductory Sociology</strong></td>
<td>Additional sociology or social science courses</td>
</tr>
<tr>
<td><strong>Statistics (most)</strong></td>
<td>Global Issues</td>
</tr>
<tr>
<td><strong>Research Methods (most)</strong></td>
<td>Social Problems</td>
</tr>
</tbody>
</table>

Completion of IGETC was not deemed problematic for students preparing to transfer into sociology.

While not as pronounced as in psychology, the task force noted that the field of sociology has different philosophical viewpoints, one that is more qualitative and the other more quantitative. This is reflected somewhat in the emphasis on statistics and mathematics at UCLA, for example.

Physics
The Physics Task Force was convened on May 13, 2011, to identify a common core of coursework that would satisfy lower-division major requirements across the UC system. While not all these courses are required for admission, they are required lower-division coursework for degree completion at most campuses.

<table>
<thead>
<tr>
<th>UC-Wide Physics Common Core</th>
<th>Some Campuses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Campuses</strong></td>
<td><strong>Some Campuses</strong></td>
</tr>
<tr>
<td><strong>Calculus-based Physics</strong></td>
<td>Computer programming (most)</td>
</tr>
<tr>
<td><strong>Calculus</strong></td>
<td>Modern Physics</td>
</tr>
<tr>
<td><strong>Multivariate Calculus</strong></td>
<td>Vector Analysis</td>
</tr>
<tr>
<td><strong>General Chemistry</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Linear Algebra</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Differential Equations</strong></td>
<td></td>
</tr>
</tbody>
</table>

More than any other discipline that convened, the physicists were concerned with the ability of transfer students to adequately prepare for upper-division coursework at UC if they focus on completing their general education requirements at the community college (e.g., IGETC). The rigor of completing a physics degree at the University requires both a significant amount of lower-division major preparation
as well as the flexibility to spread less demanding general education requirements across all four years of a student’s career. Furthermore, the sequential nature of courses required for completing a physics degree means that lower-division course selection focuses on the pre-requisites.

In reviewing the TMC in physics developed as part of the SB 1440 implementation, the task force felt that the courses selected were indeed the right ones. However, given that SB 1440 mandates the completion of either CSU Breadth or IGETC, the group concurred that it would set a student up to graduate with a degree in physics “after three years” at UC.
APPENDIX 1: Assembly Bill 2302 (Chapter 427)

Assembly Bill No. 2302

CHAPTER 427

An act to add Sections 66721.4, 66721.8, and 66739.6 to the Education Code, relating to postsecondary education.

[Approved by Governor September 29, 2010. Filed with Secretary of State September 29, 2010]

LEGISLATIVE COUNSEL'S DIGEST

AB 2302, Fong. Postsecondary education: student transfer.

Existing law, the Donahoe Higher Education Act, establishes the 3 segments of public postsecondary education in this state. These segments include the California State University, administered by the Trustees of the California State University; the University of California, administered by the Regents of the University of California; and the California Community Colleges, administered by the Board of Governors of the California Community Colleges. A provision of the act applies to the University of California only to the extent that the regents, by resolution, make that provision applicable.

Existing provisions of the act require the governing bodies of the 3 public postsecondary segments, with appropriate consultation with the academic senates of the respective segments, to develop, maintain, and disseminate a common core curriculum in general education courses for the purposes of transfer. This provision requires that a person who has successfully completed the transfer core curriculum is to be deemed to have completed all lower division general education requirements for the University of California and the California State University.

Existing law requires the governing board of each community college district to direct the appropriate officials at their respective campuses to provide students with a copy of the current transfer core curriculum and to distribute and publish copies of the transfer core curriculum in a specified manner and in specified locations.

This bill would require the California State University and the Office of the Chancellor of the California Community Colleges to work together to establish the most effective methods to inform students, college advisers, and the general public about specified transfer pathways. The bill would require the final methods to be completed prior to the beginning of the fall term of the 2011-12 academic year and included as part of a specified report.

The bill would authorize community college districts to use the methods established by the California State University and the Office of the Chancellor of the California Community Colleges to inform community college students of the California State University majors that are considered
to be similar to community college majors or areas of emphasis required to obtain an associate degree for transfer.

(2) Existing law requires the University of California, among other things, to address deficiencies in the articulation of major preparation courses between the community colleges and University of California campuses, to identify commonalities and differences in similar majors across University of California campuses, to articulate courses and course sequences at each campus of the California Community Colleges for specified major degree programs for purposes of student transfer, and to conduct a specified review of transcripts of transfer students.

This bill would request the University of California to continue those efforts with a goal of working in collaboration with the California Community Colleges to design community college transfer degrees that provide students adequate preparation for entry into a major. The bill would also request the University of California to consider and implement other specified actions to increase transfer between the university and the California Community Colleges. The bill would request the University of California to provide an interim report on the university’s review, and a final report on the university’s implementation, of specified transfer pathways to the relevant policy and fiscal committees of the Legislature by specified dates.

(3) Existing law requires the Chancellor of the California State University to establish transfer student admissions requirements to give highest priority to certain transfer students, to specify lower division transfer curriculum for specified major degree programs, and to articulate courses at each campus of the California Community Colleges for specified major degree programs for purposes of student transfer. Existing law requires each campus of the California State University to identify nonelective course requirements beyond systemwide lower division transfer curriculum requirements for each major for purposes of student transfer, in accordance with prescribed requirements.

This bill would require the Office of the Chancellor of the California Community Colleges, in a manner that is consistent with the general common course numbering system used by community college districts, to establish a process to facilitate the identification of courses that satisfy lower division preparation requirements throughout the California Community Colleges system, which would be required to be included as part of a specified report.

(4) This bill would provide that it would not become operative unless SB 1440 of the 2010–11 Regular Session is chaptered.

The people of the State of California do enact as follows:

SECTION 1. Section 66721.4 is added to the Education Code, to read:

(a) The California State University and the Office of the Chancellor of the California Community Colleges shall work together to establish the most effective methods to inform students, college advisers,
and the general public about the associate degree for transfer and specific details that help students navigate this transfer pathway, as successfully as possible, pursuant to Article 3 (commencing with Section 66745). The methods established by the California State University and the Office of the Chancellor of the California Community Colleges shall include, but not be limited to, Internet notification. The final methods determined by the two segments shall be completed prior to the beginning of the fall term of the 2011–12 academic year and included as part of the report required by subdivision (a) of Section 66749.

(b) It is the intent of the Legislature that community college students be informed of the California State University majors that are considered to be similar to community college majors or areas of emphasis required to obtain an associate degree for transfer pursuant to Article 3 (commencing with Section 66743).

(c) A community college district may use the methods established by the California State University and the Office of the Chancellor of the California Community Colleges pursuant to subdivision (a), or a community college district may use other methods to inform community college students of the California State University majors that are considered to be similar to community college majors or areas of emphasis required to obtain an associate degree for transfer pursuant to Article 3 (commencing with Section 66745).

(d) It is the intent of the Legislature that the Office of the Chancellor of the California Community Colleges not mandate community college districts to perform any new state reimbursable activity or program for purposes of implementing this section.

SEC. 2. Section 66721.8 is added to the Education Code, to read:

66721.8. (a) The Legislature finds and declares that a transparent process for transfer that is designed to assist students in identifying and taking the community college courses that will prepare them for success in specific University of California majors is a state priority.

(b) The Legislature recognizes that, pursuant to Section 66721.7, the University of California has been working with the California Community Colleges to examine and seek improvements to the transfer process. It is the intent of the Legislature that, as part of this ongoing effort, the creation of various viable pathways to transfer, including the development of an associate degree for transfer granted by community college districts, be considered by the University of California as it endeavors to enhance the transfer process.

(c) The University of California is requested to continue its examination of the evaluation of lower division community college major prerequisite to high-demand transfer majors with a goal of working in collaboration with the California Community Colleges to design community college transfer degrees that provide students adequate preparation for entry into a major. The University of California is also requested to consider offering guaranteed eligibility for admission into a University of California campus that accepts a designated community college transfer degree for admission into a designated
APPENDIX 1: Assembly Bill 2302 (Chapter 427)

University of California major. Further, the University of California is requested to implement pathways to qualify community college transfer courses for a designated University of California major by designating a series of community college courses that provide sufficient lower division preparation for a designated University of California major and that will be accepted by the University of California.

(d) The University of California is requested to provide an interim progress report on its review of the various transfer pathways discussed in this section to the relevant policy and fiscal committees of the Legislature on or before June 30, 2011, and to provide a final report to those committees, with specific findings regarding the University of California’s implementation of those transfer pathways, no later than December 31, 2011.

SEC 3. Section 66739.6 is added to the Education Code, to read:

66739.6. In a manner that is consistent with Section 71027, the Office of the Chancellor of the California Community Colleges shall establish a process to facilitate the identification of courses that satisfy lower division preparation requirements throughout the California Community College system.

(b) A description of the process established by the Office of the Chancellor of the California Community Colleges to comply with subdivision (a) shall be included as part of the report required by subdivision (a) of Section 66749.

(c) It is the intent of the Legislature that community college districts accept credits from other community college districts toward an associate degree for transfer.

(d) This section shall become operative on July 1, 2011.

SEC 4. This act shall become operative only if Senate Bill 1440 of the 2010–11 Regular Session is chaptered.
APPENDIX 2: BOARS Transfer Discussions During 2010-2011

BOARS Transfer Discussions During 2010-2011

Note: The ideas contained here have been developed by the UC Board of Admissions and Relations with Schools (BOARS) and are under discussion by the Academic Senate of UC. It is emphasized that it has not been approved but that BOARS hopes the Senate will make a decision on some version of this proposal during 2011-12.

Summary: BOARS is developing a proposal for major-based transfer admission that parallels the new Freshman Admission Policy taking effect for fall 2012. UC transfer applicants would be entitled to a review (though not guaranteed admission) if they complete any one of three proposed pathway options: completion of an SB 1440 AA Degree for Transfer with a minimum GPA to be set by each campus; completion of a yet to be developed UC TMC with a minimum GPA set by each campus; or the current pathway specified in UC Senate Regulation 476 with IGETC as an option. BOARS wants to communicate to college community students that if they pick a major, prepare for it, and show a strong case for being able to complete their declared majors in two years, they will be fully considered for transfer to UC. Moreover UC will include flexibility in the process to ensure no minor requirement derails an application for admission.

The BOARS transfer admission proposal specifies that students who complete one of three paths will be entitled to a Comprehensive Review of their application for admission to UC with advanced standing. This review will not guarantee admission to UC, however existing Transfer Admission Guarantees (TAG) will remain in place. Each pathway requires 60 (90 quarter) transferrable units, and a minimum overall GPA established by the campus to which they are applying. This minimum GPA will be at least 2.4 but not greater than 3.0. Further, the GPA minimum set by a campus should never serve as the dividing line between admission and non-admission and should allow for a substantial range of applicants to be considered via Comprehensive Review. All applicants must specify an intended major or possible majors in their application. The three paths are:

1. Students who complete the UC Transfer Curricula for their chosen major along with 60 (90 quarter) transferrable units and attain a minimum overall GPA established by the campus to which they are applying.

2. Students who complete an SB 1440 Associate Degree for Transfer and attain a minimum overall GPA established by the campus to which they are applying.

3. Students who complete the minimum criteria of seven courses specified in SR 476 C along with 60 (90 quarter) transferrable units and attain a minimum overall GPA established by the campus to which they are applying. (Note that students who complete IGETC will have these seven courses.)

Applicants who have credentials indicating the strongest likelihood of completing their major in approximately two years will be selected for admission first. Space permitting, campuses may then select applicants for admission using non major-based criteria, provided the applicants meet the criteria in Pathway (3) and do not displace comparable applicants who met the criteria in Pathway (1). Further,
APPENDIX 2: BOARS Transfer Discussions During 2010-2011

the comprehensive review of applicants will be structured to ensure that no student is denied admission for missing a “minor” requirement if a full file review provides solid evidence of their ability to complete their chosen major in two years. Campuses must view academic accomplishments in the context of opportunity when applying Comprehensive Review in the selection of transfer students, as they do with freshman applicants.

To clarify, the proposed change in policy assumes (incorporates) the following.

- All existing Transfer Admission Guarantee programs (TAGs) will remain in place, and campuses will be encouraged to continue developing new TAGs.
- The pathways stipulated in Senate Regulations 476 A, B, and D will remain in place. (SR 476 A and B address applicants who met freshmen admission requirements and seek transfer admission on that basis. 476 D deals with applicants who would have been eligible for freshman admission except for missing “a-g” or test scores that they subsequently make up.)

Discussion. The purpose of Pathway (2) is to ensure that Community College students initially targeting CSU who complete an SB 1440 Associate Degree for Transfer but who subsequently decide to consider UC are not locked out of the opportunity to attend UC. However, unlike the guarantee of admission to CSU they receive for completing the Transfer AA, UC would offer no such guarantee. Applicants will have to compete on the basis of their accomplishments and potential to complete their proposed major.

Pathway (1) is the preferred option for UC-intending transfer students. It should streamline graduation in majors with lower division requirements that are barriers to upper division courses. Some majors (particularly in STEM disciplines) will require a specific list of lower division courses while other majors will expect general education preparation and IGETC.

The policy sets the primary selection criteria as a preference for applicants with the strongest credentials for completing their major in approximately two years. This key selection criterion will be clearly spelled out in greater detail by BOARS as the process moves forward.

The policy stipulates that failure to complete a “minor” requirement will not derail an application for transfer admission, thereby addressing the concern that a complex set of rules is a major obstacle to transfer. As the proposal is filled out general guidelines will be set, but implementation details will be left to campuses.

Because nearly all students completing Pathway (1) or (2) will likely satisfy Pathway (3), this proposal does not change policy as much as it communicates new major-based emphases and increases flexibility. In doing so UC and CSU will deliver a common message to community college students about the importance of major preparation.

Benefits. There are three main benefits to this approach.

1. First, this proposal will streamline transfer by providing a single message for CCC students interested in preparing for both CSU and UC that aligns with the goals of SB 1440: “Choose a major and prepare thoroughly for it, and if you meet the basic requirements (a Transfer AA or a
UC identified Transfer Curricula for your chosen major along with 60 transferrable units and attain the campus minimum GPA), your application will be given a comprehensive review. The applicants with the strongest credentials for completing their major will be selected for admission.”

2. Second, to the extent that students choose to complete Transfer AA Degrees, the proposal will encourage them to better prepare for majors that do not currently use the completion of major preparation in selecting students for admission.

3. Finally, by guaranteeing a review to students with baseline preparation, it parallels changes made to UC freshmen admissions standards taking effect next year that are intended to remove barriers and expand opportunities. Moreover, all students currently eligible to for transfer to UC will remain so.
Dear Colleagues:

As you know, the University of California has been engaged in internal discussions intended to smooth the transfer pathway for students interested in completing their degree at one of our nine undergraduate campuses. These conversations have been driven by our own commitment to the transfer function in California, but also to be responsive to the legislation passed last year establishing an associate degree pathway for students at one of the state’s community colleges.

In fall of 2010 and again in spring of 2011, the UC Office of the President convened discipline faculty groups to discuss the lower-division major requirements at each campus. While the campuses continue to have some local variation – variation that is based on the preparation required for the upper-division coursework and research at the respective campuses – each of the disciplines that met identified a core set of common requirements. We hope that this common core will help students plan for transferring and completing a degree in the given majors across the UC system. Student Affairs at the UC Office of the President is strategizing about the best way to share this advice with your students.

Furthermore, the common core in each major serves as the starting point for our conversations with you about the Transfer Model Curricula (TMC). We are in the process of consulting with each group about the similarities and differences between the requirements at our campuses and the Transfer Model Curricula. Below is the feedback from our math faculty on your TMC for an Associate Degree for Transfer in Mathematics.

We understand that the TMC in math has been finalized recently and recognize that is not likely to change. However, we do hope that this feedback can be shared with individual community college districts as they develop their associate degree programs. To the extent that students complete associate degrees structured in this way, they will be well-prepared for study and timely degree completion at any UC campus.

We would also like to take this opportunity to reiterate our support for the development of the associate degree pathway. To the extent that students complete the TMC-based associate degrees, we anticipate better-prepared students applying to the University, especially in majors where some campuses do not currently demand lower-division major preparation as a requirement for admission. Furthermore, to the extent that new community college freshmen are unaware of the segment or campus to which they will transfer, the associate degrees will
APPENDIX 3: Sample Feedback on Transfer Model Curriculum in Mathematics

Patton, Pilati
May 13, 2011
Page 2

provide an early and clear road map. While conversations are ongoing at the University, we
anticipate that we will respond to Assembly Bill 2302 by identifying several areas where UC
can guarantee eligibility for a comprehensive review of admission. As UC faculty
committees do their work, we will continue to update you.

Please let us know if you have any questions or would like to discuss in greater detail
either the response from the UC mathematics faculty or the University’s plans for
participating in this historic transfer structural reform.

Sincerely,

[Signature]

Lawrence H. Fils
Provost and Executive Vice President
Academic Affairs

Daniel L. Simmons, Chair
Academic Council

Cc: Provost and Executive Vice Chancellors
    Academic Council Vice Chair Anderson
    Academic Senate Division Chairs
    Chairs of the Departments of Mathematics
    Vice President for Student Affairs Sabaci
    Vice Provost for Academic Personnel Carlson
    Transfer Streamlining Task Force in Mathematics
    Academic Senate Executive Director Martha Wnamaker
    Interim Director of Undergraduate Admissions Burnett
    Associate Director of Undergraduate Admissions Brick

Enclosure
APPENDIX 3: Sample Feedback on Transfer Model Curriculum in Mathematics

Transfer Streamlining Task Force in Mathematics

Recommendations on the Development of Associate Degrees for Transfer in Mathematics

In fall of 2010, the University of California convened faculty workgroups in five of the most popular academic disciplines, including mathematics, to discuss the lower-division major preparation required to complete a degree at each of the nine undergraduate campuses.

The Task Force members were identified by the department chairs at each UC campus. The feedback of the Task Force on the Transfer Model Curriculum (TMC) in Mathematics below therefore represents the input of all nine campuses. Additional consultation, however, with appropriate faculty committees and administrators both systemwide and on each campus will continue as the University develops its plan to participate in the associate degree for transfer pathway.

Task Force Feedback on the Transfer Model Curriculum for an Associate Degree in Math

- The three-semester or four-quarter sequence of calculus courses, including one in multivariable calculus, matches the expectations of UC faculty\(^1\). *(12 Semester Units)*

- The Task Force expressed a strong preference for Differential Equations and Linear Algebra courses in order to complete the 18 units of major preparation. *(6 Semester Units)*
  - This is a preference over the combined *Introduction to Differential Equations and Introduction to Linear Algebra* in Group A.
  - This is also a preference over all courses listed in Group B.

- While some UC campuses do require courses listed in Group B of the TMC (e.g., Statistics, Discrete Math), the Task Force agreed that these courses are of much lower priority than Calculus, Differential Equations, and Linear Algebra.

In addition to the feedback on the development of the curriculum in math, the Task Force identified some additional advice for students interested in transferring to UC.

- Discrete Math is a valuable additional course, particularly for students interested in Berkeley, Santa Barbara, or some of the major concentrations at UCLA.

- Likewise, Statistics is valuable for students interested in UC Santa Cruz.

- Additional science courses (particularly calculus-based physics) and computer programming courses are also recommended (e.g., at UC Irvine). Details of campus-specific recommendations are available online in the statewide UC Transfer Preparation Paths:

- UC summer courses taken prior to transfer are a valuable way to acclimate to the campus. Several UC campuses strongly recommend that students attend summer session prior to transfer.

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\(^1\) It was noted, however, that the four-quarter “Single Variable Calculus Sequence” seems to be mislabeled as the fourth quarter (C-AN MATH 23) includes the same topics as the multi-variable course above (TCSU MATH 230).
APPENDIX 4: UC Transfer Streamlining Task Force Meeting Participants

Mathematics
Berkeley: Professor Craig Evans
Davis: Professor Andrew Waldron
Irvine: Professor Alessandra Pantano
Los Angeles: Professor Chris Anderson
Merced: Professor Arnold D. Kim
Riverside: Professor Gerhard Gierz
San Diego: Professor Laura Stevens
Santa Barbara: Professor Carlos Garcia-Cervera
Santa Cruz: Professor Martin Weissman
Santa Cruz: Professor Andrea Gilovich

Computer Science
Berkeley: Professor David Wagner
Davis: Professor Dipak Ghosal
Irvine: Professor Richard Pattis
Los Angeles: Professor David Smallberg
Merced: Professor Kelvin Lwin
Riverside: Professor Neal Young
Santa Barbara: Professor Chandra Krintz
Santa Cruz: Professor Charlie McDowell

Sociology
Berkeley: Kristi Bedolla
Davis: Drew Halfmann
Irvine: Stan Bailey
Los Angeles: Jennie Brand
Merced: Paul Ameida
San Diego: Jeff Haydu
Santa Cruz: Craig Reinarman

History
Berkeley: Professor M.E. Berry
Davis: Professor Sally McKee
Irvine: Professor Lynn Mally
Los Angeles: Professor Joan Waugh
Merced: Professor Sean Malloy
Riverside: Professor Randolph Head
San Diego: Professor Gabriele Wienhausen
Santa Barbara: Professor Stephen Poole
Santa Cruz: Professor Barry Bowman

Physics
Davis: Maxwell Chertok
Irvine: Manoj Kaplinghat
Los Angeles: Michael Jura
Riverside: Bill Gary
San Diego: Michael Anderson, Barbara Lowe,
Catherine McConney, Hans Paar
Santa Barbara: Everett Lipman
Santa Cruz: David Smith

Facilitator
Professor Keith Williams

Sponsors
Provost and Executive Vice President Lawrence Pitts
Academic Council Chair Daniel Simmons
Academic Council Vice Chair Robert Anderson
Vice President Judy Sakaki
Vice Provost Susan Carlson

Staff
Associate Director Shawn Brick
Coordinator Dawn Sheibani
Policy Analyst George Zamora
APPENDIX V: Academic Senate Regulations on Transfer Admissions

Chapter 4. Admission to Advanced Standing


470. Admission of students to advanced standing in the academic colleges is under the jurisdiction of the Board of Admissions and Relations with Schools.

472. Application for examination for advanced standing on the basis of work done before entrance to the University should be made to the appropriate Admissions Officer upon entrance to the University.

474. Applicants may be given advanced standing in the University on the basis of certificates from other colleges and universities, upon the approval of the certificates by the Board of Admissions and Relations with Schools. The Board is empowered to adopt with regard to other collegiate institutions such working rules as may seem proper, to reject the certificates, in whole or in part, to defer the final granting of credit in advanced standing pending the completion, by the applicant, of satisfactory work in residence at the University, and to require examinations in any or all of the subjects offered. Applications for supplementary credit on the basis of work done before entering the University should be filed with the appropriate Admissions Officer at the time of application for admission.

476. (Am 4 May 95; Am 23 May 01) Applicants for admission to the University by transfer from other collegiate institutions must meet one of the following four requirements. (Am 4 May 95)

A. An applicant who met the requirements for Admission to Freshman Standing specified in Chapter 2 of this Title may be admitted to the University provided the applicant has maintained a grade-point average of at least 2.0 in all transferable college course work.

B. An applicant who met the requirements for Admission to Freshman Standing specified in Chapter 2 of this Title with the exception of the tests specified in SR 418 (SR 419 beginning in 2012) and/or the Specific Requirements specified in SR 424 (A) (2) may be admitted to the University provided the applicant has maintained a grade-point average of at least 2.0 in all transferable college course work and has remedied the missing requirements by

1. completing with a grade of C or higher one transferable college course (3 semester or 4-5 quarter units) for each missing high school subject specified in SR 424 (A) (2) and

2. completing with a grade of C or higher 12 semester (18 quarter) units of transferable college course work in case not all tests specified in SR 418 (SR 419 beginning in 2012) have been taken. (Am 17 June 2009)

C. An applicant who did not meet the requirements specified in (A) or (B) may be admitted to the University provided the applicant has completed 60 semester (90 quarter) units of transferable college course work, has maintained a grade-point average of at least 2.4 in transferable college course work, and has completed all of the following with a grade of C or higher:

1. Two transferable college courses (3 semester or 4-5 quarter units each) in English Composition. One of the English Composition courses is to be equivalent in level to the transferable course which would satisfy (on some campuses only in part) the English Composition requirement at the University. The second course can be (but is not required to be) the ‘English Composition/ Critical Thinking’ course used to satisfy part of the English Communication requirement of the Intersegmental General Education Transfer Curriculum specified in SR 478. Courses designed exclusively for the satisfaction of remedial composition requirements as defined in SR 761 cannot be used to satisfy this requirement.
2. One transferable college course (3 semester or 4-5 quarter units) in Mathematical Concepts and Quantitative Reasoning.

3. Four additional transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the Arts and Humanities; the Social and Behavioral Sciences; and the Physical and Biological Sciences.

D. Applicants who at the time of graduation from high school do not meet the criteria of Regulations 418 and 424, but who stand in the upper 12.5 percent of their graduating classes, as determined by criteria established by BOARS, and who have achieved a GPA of at least 3.0 in such of the courses prescribed by Regulation 424 as they have completed, may apply simultaneously for admission to a California Community College and for conditional admission to a campus of the University, subject to the satisfaction at the Community College of the provisions of Regulation 476 B and C.

The courses acceptable under (B) and (C) will be determined by the Board of Admissions and Relations with Schools. The Board may waive requirements (C) (1), (C) (2), and (C) (3) upon the presentation of appropriate test scores.

477. (En 11 May 05)

When four or more UC Senate Divisions agree to accept a course from a given California Community College as transferable for preparation for a specific major, the course will be deemed as transferable for the same major at all UC Senate Divisions one year after notification of the divisions. Similarly, if four or more Senate Divisions agree to accept a set of courses as adequate for lower-division major-preparation for a UC upper-division major discipline, that set of courses will be deemed as accepted for lower-division preparation in the same major at all the UC Senate Divisions one year after notification of the Senate Divisions. During the year following initial notification, individual Senate Divisions may decline to participate in the agreement. Additionally, all Senate Divisions will be given an annual opportunity to opt out of any previous obligation resulting from this regulation. The Academic Council or the senate agency it so designates shall advise the President on the implementation of this regulation so as to ensure that there is adequate notice for all Senate Divisions, that Senate Divisions have an annual opportunity to opt out of these obligations, and that community college students who intend to transfer to UC are minimally affected by a Senate Division’s decision to no longer accept a course or set of courses.

478. Applicants for admission to the University by transfer can fulfill the lower division Breadth and General Education (B/GE) requirements by completion of the Intersegmental General Education Transfer Curriculum. (En 5 May 88) (Am 3 May 90)

A. Intersegmental General Education Transfer Curriculum.
The Intersegmental General Education Transfer Curriculum and the guidelines and specifications that apply to its fulfillment are provided in the following table:

Systemwide Lower Division Breadth and General Education Requirements for Students who Transfer to the University of California

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Required Courses</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Foreign Language</td>
<td>Proficiency</td>
<td>Proficiency</td>
</tr>
<tr>
<td>2) English Composition</td>
<td>2 courses</td>
<td>6 semester units or 8-10 quarter units</td>
</tr>
<tr>
<td>3) Mathematics/Quantitative Reasoning</td>
<td>1 course</td>
<td>3 semester units or 4-5 quarter units</td>
</tr>
</tbody>
</table>
4) Arts and Humanities   3 courses   9 semester units or 12-15 quarter units

5) Social and Behavioral Sciences   3 courses   9 semester units or 12-15 quarter units

6) Physical and/or Biological Sciences   2 courses   7-9 semester units or 9-12 quarter units

Totals   11 courses   34 semester units

1. Foreign Language. This requirement may be fulfilled by completion of two years of a foreign language in high school with a grade of C or better, or equivalent proficiency demonstrated by college courses, or by such performance on tests as a minimum score of 550 in an appropriate College Board Subject Test for a foreign language. (Am 17 June 2009)

2. English Composition. The English Composition requirement is fulfilled by completion of one-year of lower division English Composition. However, courses in “Critical Thinking” which provide instruction in composition of substantial essays as a major component and require students to write a sequence of such essays, may be used to fulfill the second semester of this requirement. These courses must have English 1A or its equivalent as a prerequisite. Courses designed exclusively for the satisfaction of remedial composition cannot be counted toward fulfillment of the English Composition requirement. (Am 3 May 90)

3. Mathematics/Quantitative Reasoning. One-semester or two-quarter courses in mathematics or mathematical statistics. This requirement may be fulfilled by attainment of a minimum score of 600 in the Mathematics Section of the SAT Reasoning Test, or 550 in the College Board Subject Test in Mathematics (Level I or Level II). Courses on the application of statistics to particular disciplines may not be used to fulfill this requirement.

4. Courses taken to fulfill the B/GE requirements in the subject areas that follow, Arts and Humanities, Social and Behavioral Sciences, and Physical and Biological Sciences, should provide a broad foundation for understanding and learning to think critically, write, and speak about the biological and physical world, and the most important features and accomplishments of civilization. In addition to knowledge and appreciation, courses should stress principles and concepts that unify knowledge as well as the methods of investigation that characterize specific disciplines. The brief descriptions in subparagraphs 4), 5) and 6) are provided only as examples of the types of courses that could be used to meet these requirements. (Am 3 May 90)

5. Arts and Humanities. Courses that can be used to fulfill this requirement include courses in drama, music, dance or the visual arts, history, literature, classical studies, religion, and philosophy. At least one course shall be taken in the Arts and one in the Humanities. Courses in the Arts may include performance or studio components; however, courses that are primarily performance or studio art courses cannot be used to satisfy this requirement.

6. Social and Behavioral Sciences. Courses in anthropology, economics, ethnic studies, political sciences, psychology, sociology, or from an interdisciplinary social science sequence. The courses must be selected so that they are from at least two different disciplines. (Am 3 May 90)

7. Physical and Biological Sciences. Courses in biology, chemistry, physics, or physical sciences with the exception of courses in mathematics. One course must be in a physical science, the other in a biological science, and at least one must include a laboratory. (Am 3 May 90)

B. University Policy for the Intersegmental General Education Transfer Curriculum (Am 3 May 90)
The University’s policy for the Intersegmental General Education Transfer Curriculum is as follows:

1. To fulfill the lower division B/GE requirements prior to transferring to the University of California, a student has the option of fulfilling the Intersegmental General Education Transfer Curriculum or fulfilling the specific requirements of the school or college of the campus to which the student will transfer.

2. If the lower division B/GE requirements are not satisfied prior to transfer, the student will be subject to the regulations regarding B/GE lower division requirements of the school or college of the campus to which the student transfers, with the following exception. A student may fulfill the lower division B/GE requirements by fulfilling the Intersegmental General Education Transfer Curriculum (IGETC) after the transfer, provided all four of the following conditions are met. (Am 25 Feb 99)

   a. A student may complete a maximum of two courses of the IGETC after transfer.

   b. Either (1) The last-attended community college must certify the IGETC area(s) and the one or two courses yet to be completed, and that the lack of these courses was for good cause such as illness or class cancellation, OR (2) for students intending to major in the physical and biological sciences, the last-attended community college must certify that the student has substantially completed the articulated lower division courses for the major and that the student has completed the Intersegmental General Education Transfer Curriculum except for (i) one course in Arts and Humanities and (ii) one course in Social and Behavioral Sciences; students in this category may satisfy the IGETC requirement in Physical and Biological sciences with a year-long sequence in a single laboratory science. (Am 11 May 2005)

   c. A student who has been approved to complete one or two IGETC courses after transfer may take a certified IGETC course in the area remaining to be completed at any California community college subject to the UC campus rules regarding concurrent enrollment or, at the option of the UC campus, may take approved substitute courses at that UC campus.

   d. The IGETC must be completed within one academic year (two semesters or three quarters plus any summer that might intervene) of the student’s transfer to UC.

3. Only courses accepted for baccalaureate credit at UC, and in which a grade of C or better was attained, can be applied toward fulfillment of the UC lower division B/GE requirements.

4. Credit for College Board Advanced Placement Tests can be used for partial fulfillment of the Intersegmental General Education Transfer Curriculum. For the category of English Composition, a score of 5 can be used to satisfy one semester or two quarters of this requirement. For all other disciplines, a score of 3 or higher on the appropriate AP test may be used to satisfy one semester or two quarters of the requirement. (En 3 May 90)

**Article 2. Language Credit for Native Languages Other Than English**

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A student whose native language is not English and who has completed at least nine years of education conducted in that native language may receive credit for language courses in it only if the courses are advanced courses at the upper division level. College credit for literature in the native language is allowed only for courses taken in native institutions of college grade, or for upper division and graduate courses actually taken at the University of California or at another English-speaking institution of approved standing. (See SR 456.) (Am 26 May 82)