

**REPORT OF
THE TRANSFER ARTICULATION TASK FORCE
ARIZONA BOARD OF REGENTS**

AND

**THE STATE BOARD OF DIRECTORS FOR
COMMUNITY COLLEGES OF ARIZONA**

October 30, 1996

The complete Report of the Transfer Articulation Task Force is located here. If you would like a [summary](#), or the [attachments](#) click on the respective areas.

I. INTRODUCTION

The Transfer Articulation Task Force was established by the Arizona Board of Regents and the State Board of Directors for Community Colleges in response to the charge by the 1996 Legislature, which included the following language in the appropriations for both the universities and the community colleges:

The Arizona board of regents (ABOR) and the state board of directors for community colleges (state board) shall jointly establish a study committee comprised of university and community college members who are representatives of faculty, academic administration, student services and the chief executive officers. It is the intent of the legislature that this study committee establish a seamless statewide articulation and transfer system, including the process for transfer of lower division general education credits and curriculum requirements for majors, with the objective of reaching consensus on an agreement that assures that community college students may transfer to Arizona public universities without loss of credit towards a baccalaureate degree. The ABOR and the state board shall present the agreement for review by the joint legislative budget committee by December 15, 1996.

The task force is pleased to submit the following report in response to this charge.

Community college/university transfer articulation is a complex matter, first of all, because there are *different*

kinds of transfer students:

Some students simply want to transfer a few courses, while others want to transfer complete associate degree programs.

Some students know exactly what they want to major in and where, but most students either change their minds frequently or delay choosing university or major until they have had some time to explore.

The second reason that transfer articulation is complex is that there are *different kinds of majors* requiring very different kinds of lower division preparation. For example,

Many traditional liberal arts majors require the study of a second language, a requirement that is not part of many professional degrees.

Majors in the physical and natural sciences require a solid foundation of lower division course work in mathematics and science that would be inappropriate to require of students majoring in other areas.

The curricula in some professional programs are so specific (because of accreditation or certification requirements) that a student must follow a structured curriculum from the very first semester in order to complete the program in the minimum number of hours required.

Thus, no universal lower division transfer curriculum will serve all majors, and no single transfer tool will serve all students.

Arizona is often cited as a national leader in transfer articulation for its many-faceted efforts to ensure that community college students can move smoothly into different kinds of university programs. For over 15 years, discipline-specific "Articulation Task Forces" (ATFs), which comprise faculty representatives in the same discipline from all of the community colleges and universities, have been meeting face-to-face annually to develop, maintain, and improve various articulation tools. The tools developed so far are especially useful to students who want to transfer a few courses or who have chosen a major and a university when they start at the community college.

Course Equivalency Guide (CEG): The annual CEG shows exactly how each community college course will transfer to the different universities and therefore provides reliable

information to guide the choices of students who want to transfer only a few courses.

Transfer Guides: For students who have chosen their major and university, the transfer guides provide a clear and secure transfer pathway into the major, showing exactly what courses they should take at a particular community college to meet university, college, and major requirements.

The newest transfer tool, the *Transfer General Education Core Curriculum (TGECC)*, approved in 1992 and revised in 1993, attempted to go beyond course-by-course articulation by creating a 41-hour *block* of courses that any student could transfer as a block to meet the lower division university general education requirements at the three universities. Although the TGECC was an option for all students, it was intended to provide a useful pathway to ensure meaningful transfer of a substantial number of credits for students who had not selected a major or university.

The task force has undertaken to improve the range and effectiveness of these efforts to help all kinds of students to transfer efficiently from the community colleges into the different kinds of programs at the universities.

The goal is to create for community college students additional clear and secure *transfer pathways*--different from but parallel to the pathways followed by native university students--that will allow them to maximize their experience at the community college, to incorporate community college credits or degrees efficiently into university graduation requirements, and to complete baccalaureate majors in the minimum number of required hours.

The new transfer system proposed in this report is built upon the considerable strengths of the previous system but with a number of significant structural changes in the transfer degree model, with vastly improved tools to assist in the implementation of the model, and with a formal oversight and accountability structure to assure that the system performs as planned.

The membership of the task force is shown below.

Co-chairs: State Board ABOR
Representative Representative

Thava
Freedman

Judy Gignac

Presidential Representatives

John Klein, *Central Arizona College*

Clara M. Lovett, *Northern Arizona University*

Academic Administration Representatives

Mary Briden, *Maricopa CC District*

Milton Glick, *Arizona State University*

Bruce Stanfield, *Eastern Arizona College*

Paul Sypherd, *The University of Arizona*

Faculty Representatives

Ken Meier, *Yavapai College*

Steven D. Martinson, *The University of Arizona*

Scott Collins, *Pima Community College*

Thomas V. McGovern, *Arizona State University West*

Student Services Representatives

Terree Duncan, *Coconino Community College*

Patrick F. Martin, *Northern Arizona University*

Student Representative

James Trinidad Gregory, *NAU/Yuma*

II. A NEW MODEL FOR TRANSFER

The task force proposes a new model for transfer that includes new transfer degrees, new general education requirements, new common requirements for equivalent majors, the concept of transfer blocks, resulting in new pathways for transfer. The task force also proposes new limits on the amount of work that can be transferred from a community college into a baccalaureate degree. While each of these new elements borrows heavily from the existing structure (including the CEG, TGECC, Articulation Task Forces, and the like), the effect of bringing the new parts together into an integrated whole is a truly new model for transfer.

The task force is mindful of the fact that some of its proposals will require changes in the policies of the community colleges and universities. Where this is the case, the policy changes should be made as soon as is feasible.

A. New Transfer Credit Limits

A common limit on the total number of credit hours which will be accepted in transfer from a community college is needed as an umbrella under which to develop the new transfer model. While recognizing the advantages to the transfer student of taking lower-division courses at the community college, this limit should also reflect the recent mandate from the Arizona Board of Regents that the universities' baccalaureate degree programs be reduced to a total of 120 credit hours. Therefore the task force recommends that the universities adopt one-half of the degree requirements plus one course as the limit of the number of credits that can be accepted by transfer from a community college for application to a baccalaureate degrees. (Example: For a 120-credit baccalaureate, the transfer limit would be 60 credits + one course.) A university may accept a larger number of credits if the circumstances justify doing so. (For example, in the case of an articulated 2+2 degree in a specialized field.)

B. New Transfer Degrees

The task force proposes that community colleges develop three basic transfer degrees, the Associate in Arts (AA), the Associate in Business (ABus) and the Associate in Science (AS). The general parameters of the proposed degrees are illustrated in Figure 1. See Figure 1 in the [Attachments](#).

Students must achieve a grade of "C" or better for all courses included in the above degrees. As described in more detail later in the report, the Articulation Task Forces (ATFs) will be called upon to refine the specifications of each of these degrees. These specifications will be communicated to the Academic Program Articulation Steering Committee (APASC) who, in turn, will report to the Joint Conference Committee (JCC). The two boards (ABOR and SBDCCA) will be kept informed through the JCC.

Students who know their major and university will continue to have the option of following the appropriate transfer guide. Moreover, to serve student needs, individual community colleges and universities have and will continue to have bilateral agreements regarding articulated 2+2 transfer degree programs outside the above specifications. These special cases are accommodated under this agreement, but every effort shall be made to alter these special articulated 2+2 transfer degree programs to fit within one of the above degrees, and especially, to include one of the general education curricula described in item C, which follows.

C. New General Education Requirements

The task force proposes redefining the present 41-credit Transfer General Education Core Curriculum (TGECC) to include 35 credits for the AA and ABus degrees and 24 credits for the AS degree. The "Arizona General Education Curriculum (AA/ABus)" [AGEC(AA/ABus)] is only slightly changed from the present TGECC (41 credits to 35 credits). The "Arizona General Education Curriculum (AS)" [AGEC(AS)] is the same as the AGEC(AA/ABus) except that the mathematics and science requirements have been shifted from general education to program requirements. The task force proposes that the AGECS will transfer as a block and all credits will apply to graduation requirements of the major with which they articulate. Students will no longer have to be concerned about courses included in the AGEC also having to satisfy other program requirements.

As is now the case, each community college and each university may elect to approach general education differently. Courses that were previously approved as a part of a community college's TGECC may be incorporated into that college's AGEC without further review.

D. New Common Major Requirements for Equivalent Majors

Some, but by no means all, university majors require that students begin to specialize in the lower division. In these cases where lower division specialization occurs, the task force proposes that as many as possible but at least 6 credits of requirements common to equivalent majors at the several universities will be identified. For students who complete the common major requirements, these credits will transfer as a block and apply to the graduation requirements for that major, so that students can select a major without initially having to decide upon a university.

E. Transfer Blocks for General Education, Major Requirements and Associate Degrees

The concept of transferring blocks of courses rather than individual courses is a first step toward defining and assessing competencies rather than courses as the measure of educational achievement. The first partial application of this concept was in the original TGECC. The new AGEC and transfer degrees take this principle to a higher level. As previously stated, the AGEC(AA/ABus) is a 35-credit block and the AGEC(AS) is a 24-credit block. The

AA and the AS are also blocks that, when completed, transfer in a special way.

Completed blocks are treated as a whole; the components are no longer examined separately to determine transferability. All credits are accepted and applied toward the university degree or degrees for which the block articulates whether the credit was awarded for course completion, assessment of prior learning, or via some other nontraditional learning mode. Students must achieve a grade of "C" or better in all courses in the block.

This is not the case with partial blocks. An incomplete AGECE is simply a collection of courses that the university will consider individually, as is now the case. If a student has a completed AGECE but has not completed an AA or AS degree, the AGECE will transfer as a block, but the remaining courses will be individually evaluated.

The task force also proposes that APASC be charged to determine the conditions under which community college courses will be accepted as electives within the structure of the new transfer degrees.

F. New Pathways for Transfer

The following discussion illustrates how the several new principles come together to define the new transfer process. Figure 2, Major Categories and Transfer Student Decision Points, illustrates the student's responsibility to make appropriate informed decisions, but also shows the flexibility that has been built into the system. See Figure 2 in the [Attachments](#)

Students who have completed one of the pathways described in Figure 2 will be able to transfer to the university, have "Junior" status, be certain that all credits included in the degree will apply toward graduation in the baccalaureate majors with which the pathway articulates, and will be able to compete for admission into competitive programs on the same basis as native university students.

For the purpose of this discussion, university majors into which community college students transfer are considered to be in one of six categories:

1. AA - General Requirements (AA-GR)
2. AA - Special Requirements

(AA-SR)

3. ABus - General Requirements
(ABus-GR)

4. AS - General Requirements
(AS-GR)

5. AS - Special Requirements
(AS-SR)

6. Transfer Guide - Exceptional
Requirements (TG-XR)

Placement into one of these categories is in accordance with the following criteria:

AA-General Requirements. For a student who has completed the requirements of the AA degree, all credits taken to fulfill those requirements will transfer into any of these majors without loss and will be applicable to university graduation requirements. It is not necessary for the student to determine which of the majors included in this category will be selected until matriculation at the university.

AA-Special Requirements. For a student who has completed the requirements of the AA degree and has completed the specific lower division program requirements, all credits taken to fulfill those requirements will transfer into any of these majors without loss and will be applicable to university graduation requirements. The student will likely have to select one of the majors included in this category by the completion of the first year of study (30 credits).

Goal 1 - The 6 or more credits of specific lower division program requirements should be common among equivalent majors at the various universities.

Goal 2 - Each of these majors should be periodically reviewed by the appropriate ATFs to assess the feasibility of qualifying it for placement in the AA-GR category. Each ATF will report its findings to APASC, which in turn will inform the JCC.

ABus-General Requirements. For a student who has completed the requirements of the ABus degree, all credits taken to fulfill those requirements will transfer into any of these majors without loss and will be applicable to

university graduation requirements. It is not necessary for the student to determine which of the majors included in this category will be selected until matriculation at the university.

AS-General Requirements. For a student who has completed the requirements of the AS degree, all credits taken to fulfill those requirements will transfer into any of these majors without loss and will be applicable to university graduation requirements. It is not necessary for the student to determine which of the majors included in this category will be selected until matriculation at the university.

AS-Special Requirements. For a student who has completed the requirements of the AS degree and has completed the specific lower division program requirements, all credits taken to fulfill those requirements will transfer into any of these majors without loss and will be applicable to university graduation requirements. The student will likely have to select one of the majors included in this category by the completion of the first year of study (30 credits).

Goal 1 - The 6 or more credits of specific lower division major requirements should be common among equivalent majors at the various universities.

Goal 2 - Each of these majors should be periodically reviewed by the appropriate ATFs to assess the feasibility of qualifying it for placement in the AS-GR category. Each ATF will report its findings to APASC, which in turn will inform the JCC.

Transfer Guide - Exceptional Requirements. These majors do not qualify for placement in one of the previous categories for one or more of the following reasons.

The major is so specialized that it is not possible to accommodate the first two years in any of the prescribed transfer degree requirements.

The sequence of program requirements or prerequisites is so strict that a student must begin the sequence in the freshman year.

The major is a specialized 2+2 transfer degree articulated under a bilateral agreement between an individual community college and a university.

Goal. Each major in this category should be reviewed by the appropriate ATF at least once every four years to assess the feasibility of qualifying it for placement in one of the other categories. The ATF will report its findings to APASC, which in turn will inform the JCC.

The process and target dates for placement of university baccalaureate majors into these categories are described in Attachment B. This process calls for ATFs to describe the category each major currently falls within, based upon the criteria described above, and to determine if the major should be moved to a less restrictive category, based upon the criteria described in Attachment C. These recommendations, together with information on any majors for which an ATF is not able to develop a recommendation, will be reviewed by APASC. APASC recommendations, together with any majors for which APASC is not able to develop a recommendation, will be forwarded to the JCC for review and resolution.

G. Implementation

Because of the need to resolve transfer issues that impact students as expeditiously as possible, target dates have been set to implement the new transfer model by Fall 1998, as described in Attachment B. Therefore, task forces and committees charged with responsibilities for implementing task force proposals should make a good faith effort to meet these deadlines, utilizing electronic communications where possible and scheduling additional meetings where necessary.

III. NEW SUPPORT SYSTEMS FOR THE TRANSFER MODEL

The new model for transfer represents a significant step forward for transfer articulation in Arizona. However, this new transfer model requires new management, advising and informational support systems in order to succeed in achieving the goal that community college students may transfer to Arizona public universities without loss of credit towards a baccalaureate degree.

The resource implications of these new support systems will not be insignificant. In order to ensure that resources are adequate to implement these systems and that they are managed as efficiently as possible, the State Board of Directors and the Arizona Board of Regents will complete a detailed comprehensive analysis of the resources needed

for the management, advising and information systems by January 1997

A. New Management System

Currently there is an organizational structure through which transfer articulation is managed, but the task force has identified a number of concerns and issues relating to this management system. The organizational structure is perceived to be overly complex, the process of transfer articulation is viewed as being too costly, and the responsibilities of the committees and task forces which make up this structure are not well known or well coordinated. Furthermore, the articulation process is too focused upon the narrow issues of course by course articulation rather than upon broader issues such as program articulation and differentiation between lower- and upper-division courses. Also, the effectiveness of faculty interaction and decision-making needs to be enhanced, and the accountability of task forces and committees for the success of the articulation process needs to be strengthened.

To address these concerns, the task force proposes that:

the organizational structure used to manage transfer articulation be reviewed and streamlined an Articulation Facilitator be hired and charged to coordinate the management process the responsibilities of standing committees and task forces be better defined criteria be developed for differentiating between lower- and upper-division courses the ATFs broaden their focus to include issues of program articulation the effectiveness of faculty interaction be enhanced through selection and training, and the accountability of task forces and committees be strengthened. A more detailed description and explanation of these proposals is provided below.

1. Organizational Structure. The current organizational structure for transfer articulation, as described in Attachment D (see [Attachments](#)), is viewed by some as overly complex, confusing and poorly documented. Therefore, the task force proposes that this organizational structure be reviewed and redefined by APASC, with the goal of simplifying the structure where possible, especially in light of advances in information technology, such as the Course Applicability System (CAS) currently under development. (CAS is described in more detail in Section C1, below.) In particular, APASC should address questions

such as the following:

What new organizational structures and functions will be needed to support the use of CAS? Which current organizational structures will no longer be necessary, once CAS is fully implemented?

The current ATF process is further complicated by the fact that university and community college decision-makers for particular academic programs are not always the same individuals as those who represent the institutions at discipline-specific ATF meetings. This requires the CEG Coordinators to record recommendations at an ATF meeting and then send these back to the institution for verification. In addition, the cost of the ATF process is related in large part to the travel and meeting time that is required for these face-to-face ATF meetings.

The Course Applicability System (CAS) currently being prototyped will provide a Web-based electronic communications system which can be used to address both the issues of complexity and cost while providing at the same time for more systematic and frequent ATF discussions and a more timely, efficient decision-making process.

Therefore, the task force proposes that the CAS be implemented and utilized to simplify the ATF process, and that in order to make efficient use of the Web-based communication process offered by CAS, ATF members should:

agree to use the electronic communication system for discussions and decision-making, and be empowered to communicate final decisions regarding the articulation of curricula.

2. Articulation Facilitator. Because of the number of institutions and other organizational entities involved in the management of transfer articulation in Arizona, APASC has recommended that a full-time position be devoted to the coordination of this management process. An APASC Facilitator was envisioned as part of the original organizational structure, but this position has not been filled in recent years. APASC recommends the broadening of this position into an Articulation Facilitator, with responsibilities for coordination of the ATFs as well as staffing the steering committee. The role of an Articulation Facilitator will also be critical in helping to simplify,

enhance, and reduce the cost of the ATF process by integrating CAS into the responsibilities and functions of the ATFs and by coordinating training for task force chairs and members. The task force supports the APASC recommendation that the position of Articulation Facilitator be created, that the responsibilities of this position be defined as in the proposed job description, that the position be jointly funded and filled as soon as possible, and that clerical support be provided for the position, as necessary. Ultimately, this position might be integrated into the articulation support services structure described below in section III, C, 3.

3. Responsibilities. The responsibilities of the committees and task forces which make up this structure are not widely known, the articulation process is too narrowly focused upon course by course articulation, and there is a need for an Articulation Facilitator to help coordinate the articulation process. Therefore, the task force proposes that the responsibilities of APASC be defined by the recently developed set of APASC goals and implementation plan (see [Attachment E](#)), that the responsibilities of the Articulation Task Forces be defined according to the recently developed set of ATF recommendations (see [Attachment F](#)) and that the responsibilities of the Articulation Facilitator be defined by the recently developed position description (see [Attachment G](#)). In addition, the responsibilities of the special articulation task forces, including the Advising ATF and the General Education ATF, should be more fully defined and incorporated into the ATF process and publications.

4. Lower/Upper-Division Course Criteria. The articulation process is hampered by lack of criteria for differentiating between lower- and upper-division courses. Therefore, the task force proposes that criteria be developed for differentiating lower- from upper-division courses, as specified in the third APASC Goal. These criteria should be used to ensure consistency in the level at which new courses are offered and to coordinate changes in the level of courses from lower division to upper division (and vice versa).

5. Program Articulation. The articulation process is too narrowly focused upon course by course articulation and does not address larger issues of program articulation. Therefore, the task force proposes that the scope of ATF responsibilities be broadened to include consideration of plans for curricular changes, as specified in the second

APASC recommendations for the ATFs. The intent of this proposal is to involve community college and university faculty and appropriate others in the early planning stages of any additions, changes or deletions affecting lower-division course and degree programs, as specified in the second APASC goal.

6. Faculty Selection and Training for ATFs. An ATF works best when community college and university faculty come to the table as full and equal collaborators in behalf of student learning. With the understanding that faculty are responsible for the curriculum, this partnership must always balance the intellectual expectations of faculty and taxpayers. The ATF must be grounded in accountability to our public, respect for all faculty contributions to student learning, and a commitment to continuing change and improvement in and through diverse academic communities.

The effectiveness of faculty interaction and decision-making through the ATFs needs to be enhanced. Therefore, the task force proposes that criteria be established for selection of faculty to participate in each ATF, as specified in the eighth APASC recommendation for the ATFs, and that an Articulation Facilitator be hired to coordinate training, staffing and reporting for the ATFs, as specified in the first APASC recommendation for the ATFs.

7. Accountability. The accountability of task forces and committees for the success of the articulation process must be strengthened. For this reason the task force proposes the following:

The effectiveness of each ATF needs to be closely monitored by the Articulation Facilitator. Each ATF will each provide an annual report on its actions and recommendations to APASC, with a copy to the chief academic officer of each participating institution. APASC will bring all recommendations on policy issues that impact transfer articulation through the Joint Conference Committee for first review and to the Arizona Board of Regents and the State Board of Directors for final review and approval, with copies to the presidents of each public community college and university. APASC will also provide an annual report summarizing all ATF and APASC activities to the Joint Conference Committee for acceptance and to the respective Boards for information, with copies to the presidents of each public community college and university. APASC will develop a set of statistical measures

that can be used to assess the effectiveness of the new transfer model and of transfer articulation in Arizona. These measures will be implemented and included in the annual report to the JCC and the boards. The Joint Conference Committee will provide an annual report on the statewide transfer system to the Arizona Board of Regents and the State Board of Directors for Community Colleges of Arizona, with copies to the JLBC, OSPB, President of the Senate, and Speaker of the House of Representatives. Facilitating oversight for transfer articulation in Arizona will become a primary responsibility of the Joint Conference Committee. Appeals of institutional curriculum decisions that impact transfer articulation will be brought by any institution to the appropriate ATF for resolution by consensus. Appeals of any ATF decision as well as appeals that cannot be resolved by the appropriate ATF will be brought by any institution's chief academic officer and/or the ATF to APASC for resolution by consensus. APASC will transmit any appeal that it cannot resolve to the Joint Conference Committee for resolution. Beginning in the year 2000, the Joint Conference Committee will publish a 5-year progress report on transfer in Arizona, based upon student data.

8. Implementation. APASC goals and recommendations for the ATFs will be reviewed by the JCC in October 1996 and approved by the boards in November 1996. An Articulation Facilitator will be hired by January 1997. The appeals process will be developed by APASC with appropriate input from the Councils of Presidents, Chief Academic Officers and ATF representatives no later than June 1, 1997. APASC will report on this process and on implementation of goals and recommendations in annual reports to the JCC and the boards, beginning in Fall 1997. Organizational review is expected to be complete by Fall 1997 and implementation of all process recommendations by Fall 1998.

B. New Advising System

The advising system detailed in this report creates a partnership between the community colleges and the universities that will improve on the current advising process. While the ultimate success of advisement depends to no small extent on the other parts of this transfer system, this new advising system will provide for enhanced advocacy for students, access of students to proactive advising, support for student decision-making, formal advising networks, staff development and support,

and evaluation for continuous improvement.

1. Advocacy. Of all the groups included in the articulation/transfer system, advisors are furthest away from the administrative decision-making processes and closest to the student decision-making process; advisors are responsible, however, for communicating the administrative decisions/agreements. Complicating this situation further, the advisor, especially the community college advisor, is frequently placed in a position of advocacy without empowerment.

Based on the principle that transfer and applicability of credit issues should be solved as close to the student as possible, the task force proposes that each of the state universities and community colleges will identify a transfer student ombudsperson (TSO) to resolve problems encountered by transfer students as reported by students, advisors, faculty members, and college officials. The TSO will ensure compliance with the agreements when issues or problems concerning the transfer and applicability of credit arise. The TSO is most appropriately one of an institution's senior advising officials.

A community college TSO to whom a problem is reported will provide a written account of the problem to the appropriate university TSO within two weeks of receiving the report. The university and community college TSOs will jointly resolve the problem within two weeks of the receipt of the report by the university TSO. Should the community college TSO and the university TSO disagree on the resolution, or should the university TSO be unable to resolve a problem in the allotted time, the issue will be forwarded to the university's chief academic officer for a final decision, after consultation with the community college chief academic officer.

The Joint Conference Committee will receive an annual report developed by each university TSO, in consultation with community college TSOs, describing the number of problems, their type, and their disposition.

2. Access. An improvement in advising for students intending to transfer requires action by both the universities and the community colleges. One issue is that students intending to transfer to a university can have difficulty accessing university advising services prior to admission.

The resolution of this issue is predicated on the principle

that students at the community colleges who intend to transfer should be guaranteed access to university advising services. Therefore the task force proposes that each university designate an advisor trained in pre-transfer issues. This individual will be able to provide academic information and advice to students prior to admission to the university. This individual will also facilitate contacts between pre-transfer students and university, college, and departmental offices.

Upon request from a community college, the universities will implement a system of on-site visits by pre-transfer advisors. Also, in support of transfer student access to university information, it is proposed that the university involve appropriate staff to explore the implementation of an "800" help line or electronic advisor access.

A second issue is that community college advisors serve a diverse population of students, many of whom are not attending with an intent to transfer. Moreover, students frequently delay making timely decisions regarding their academic intentions.

The resolution of this issue is based on the principle of proactive advising. Rather than waiting for pre-transfer students to make decisions, the state's institutions must actively seek them out and advise them as to appropriate course choices and choice points. Therefore the task force proposes that each community college will continue to develop and enhance a system to identify potential transfer students. The task force recommends that all community colleges shall offer regular advising sessions for potential transfer students.

In addition, APASC is responsible for the development of resources informing students about the transfer process and for the updating of such materials in a timely manner. Such resources may be available in print or through electronic media. The community colleges advising offices are the appropriate distribution points for the print resource while the Course Applicability System may be the appropriate electronic vehicle.

3. Student Decision Making. Student decisions, decision-making skills, and commitment to a specific program and university directly impact the success of advising and transfer of credits. The transfer student shares a similar risk with the entering university freshman concerning loss of credits and additional requirements if undecided on a

major or electing to change a major. However, the transfer student faces an additional risk if undecided as to university.

Satisfactory progress towards a degree requires a student to make a series of decisions at appropriate points. While we cannot require that students will never change their minds, an early effort to focus -- supported by intensive advising -- is vital to successful student progress.

For this reason, the task force proposes that the community colleges be responsible for notifying students declaring an intent to transfer of the following decision points and of the consequences of failing to make a decision at the appropriate point:

Transfer - A student who intends to transfer should identify himself/herself as such at the beginning of the transfer coursework. Students interested in specialized majors or who have already decided on a major should also declare their intentions at this point.Major and University - At a point no later than the semester prior to the completion of general education (i.e. after roughly 30 units of coursework), the student should declare his/her intended major and university. Application - During the year preceding transfer, the student should complete an application to the intended university and program applications where such are necessary.

Students should seek advising at each of these decision points in order to follow optimal pathways through the new transfer model, as outlined in Figure 2, Major Categories and Transfer Student Decision Points.

4. Advising Networks. Community college advisors and faculty have established informal networks to address problems faced by transfer students. The informal process is dependent on the knowledge and, often, the seniority of the advisor, as well as the collegial relationships between individuals at both the community college and university.

The Advising Articulation Task Force (AATF) must be transformed into a more formal advising network. For this reason the task force makes the following proposals:

The AATF should be recognized as one of the state's ATFs and incorporated into the ATF structure, process and publications. The membership of the AATF should include the pre-transfer advisors and the TSOs. The AATF should meet at least twice a year and distribute its minutes and an

annual report to APASC and the Joint Conference Committee. One of the ongoing responsibilities of the AATF should be the development and updating of a manual to facilitate and coordinate training about transfer advising.

5. Staff Development and Support. Knowledge and comprehension of the agreements, articulation procedures, university admission requirements, major requirements, departmental (or college) requirements/procedures, and the tools available which support articulation and transfer, affect the success of the advising outcomes. Advisors are required to understand all of this information, and they need regular professional development opportunities to perform their duties effectively. Training and staff development opportunities are required to teach advisors about the articulation and transfer system, the use of advising tools, and the management of information. As the Course Applicability System is implemented, support will be needed to enable students and advisors to fully utilize this on-line system.

The task force proposes that all of Arizona's public higher education institutions will implement an articulated advising system, as described here, and will train advisors in transfer issues, using the materials developed by the AATF. Further, all these institutions will support implementation of the Course Applicability System so that advisors and students have access to up-to-date transfer information and decision-support tools.

6. Evaluation. The continuous improvement of services and outcomes relative to advising and transfer students is essential. Therefore, the task force proposes that, under the oversight of APASC, an evaluation system involving staff, faculty, and students from all state public higher education institutions will be developed and implemented.

7. Implementation. Assuming the availability of required resources, the implementation of these proposals could be completed by Fall 1997.

C. New Computer-Based Information Systems

The new transfer model and the new support systems described above will need enhanced information systems in order to function effectively and efficiently. Two kinds of systems are needed: one system to assist potential transfer students and advisors with academic plans and decisions and another to assist faculty and administrators

with curriculum development and evaluation. The task force proposes that the Course Applicability System currently under development be supported and implemented to assist with decisions about courses, majors, and transfer institutions and that a new Transfer Student Data Warehouse be designed, supported and implemented to assist in tracking transfer students and evaluating transfer programs.

1. Course Applicability System. While the updating and publication of the annual Course Equivalency Guide is an outstanding accomplishment that is matched by few other states, there are limitations to the effectiveness and efficiency with which this information is generated and distributed. The manual process used in reaching transfer articulation agreements and updating their documentation is paper-intensive, time-intensive, and labor-intensive, and the usefulness of printed documents such as the CEG is limited in terms of their timeliness, distribution, accessibility and applicability.

In order to overcome these limitations, the Arizona Board of Regents and the State Board of Directors for Community Colleges of Arizona are currently engaged in a joint-development project with the Ohio Board of Regents and Ohio's Miami University Degree Audit Reporting System (Miami-DARS). The purpose of the joint Arizona-Ohio project is to develop a prototype computer system, known as the Course Applicability System. When implemented, the CAS will automate key aspects of the current paper-intensive articulation system. This will allow students from community colleges and universities to obtain course transfer information on-line, using the World Wide Web. It will also allow advisors, faculty, and administrators to use the Web to obtain consistent and accurate information about transfer courses. In addition, CAS will include an important new feature employing the Web to enhance communication between faculty and staff who are responsible for making decisions about how courses transfer. The result will be a more efficient, more accessible, and--ultimately--a paper-free process to help transfer students move from institution to institution and earn their degrees in a timely manner.

The prototype Course Applicability System will be completed in Spring 1997. For implementation of CAS, three elements are required: (1) an implementation steering committee, (2) funding for hardware, software, networks and personnel, and (3) full-time personnel

dedicated to implementation and long-term maintenance.

A CAS implementation steering committee should be in place no later than January 1997 to work with the current CAS prototype team on the transition from prototype to implementation. The task force supports the proposal that APASC be requested to function as the CAS Implementation Steering Committee and that APASC should be supported in its steering committee role by the current CAS prototype team, by the current CEG Steering Committee, and by a specially formed technical advisory group consisting of representatives from the university and community college computer centers.

The task force proposes that the staff needed for development and maintenance of CAS be integrated into an Articulation Support Services. Statewide implementation of CAS will begin in spring 1997, with full implementation dependent upon the availability of resources.

2. Transfer Student Data Warehouse. While some data and routine reports on transfer students are exchanged between community colleges and universities under the legal umbrella of data-sharing agreements signed by the presidents, comprehensive, standardized information is not readily available in a form that is useful to analysts at each institution. This lack of readily accessible and usable data on transfer students makes it difficult to track students who transfer between and among Arizona's public community colleges and universities and to evaluate the success of their transfer programs.

The task force proposes that a "data warehouse" be developed using a relational database to store standardized data on transfer students and that this data be accessible to MAC or PC computers at each institution through client-server technology that makes use of the World Wide Web. The statewide student tracking warehouse would be structured so that each post-secondary institution would have its own database containing information on its former students.

A data warehouse does not need a large or expensive server. A server would be necessary for the warehouse, but to cut costs, a transfer student data warehouse might be housed on the same computer that is used as a server for the Course Applicability System. The data warehouse would also need a database engine and operating system, although these might be provided by the institution at

which the warehouse resides. Also, staff support would be needed to create and maintain the warehouse, coordinate with institutions concerning exchange data, subscribe new users and administer security, maintain documentation, and train and help users resolve problems. To access the data warehouse, clients would need a 486 or higher computer with at least 8 megabytes of RAM (or a MAC with equivalent specifications) and an Ethernet connection.

The task force proposes that the community colleges and universities each participate in the development of a transfer student data warehouse and make plans to access it on their campuses as soon as possible. Ultimately, the resources necessary for implementation and maintenance of the transfer student data warehouse should be integrated with other related articulation support services.

3. Articulation Support Services. Although the new reporting system, and the two new information systems proposed here each require separate staff support, there are clear relationships between the needs and functions of each system. The CAS and the Data Warehouse will each provide information and decision-support tools useful to the Articulation Task Forces, and all three provide information and reports useful to students, advisors, APASC and the Joint Conference Committee. The task force proposes that the staff required to support the Articulation Task Force process, the Course Applicability System and the Data Warehouse work closely together as an articulation support services team to ensure that these three support systems are coordinated and take advantage of synergies and cost savings. The staffing duties for these support services are described in Attachment H.

4. Implementation. The prototype Course Applicability System will be completed in Spring 1997. APASC will take on responsibilities for guiding the implementation of CAS by January 1997. Full implementation of CAS will depend upon the availability of necessary resources. Design and implementation of the data warehouse could begin by January 1997, and if the necessary resources were available, data might be accessible by Fall 1997. Resource needs for both information systems will be analyzed as part of the full-cost study of all transfer support systems to be conducted by the Board of Regents and the State Board of Directors.

IV. CONCLUSION

The proposals described here build upon the strengths of the existing transfer process, while initiating a number of significant structural changes. With the addition of major student and technical support systems, including a formal oversight and accountability structure, this new transfer model provides flexible yet efficient pathways to high quality post-secondary education for students who transfer between Arizona's public community colleges and universities. The successful implementation of this new model will enable Arizona to continue in its role as a national leader in providing statewide access for transfer students.

While these proposals address all of the current issues discussed by the task force, several additional issues were identified as likely to emerge in the next few years. One emerging issue is the need to develop standards that define the desired competencies or outcomes of learning at various educational levels. Such standards will enable the use of competency-based assessments in place of "seat-time" in specific courses as the criteria for entry into or exit from institutions and programs. A second emerging issue is the need to develop policies on the articulation of institutional programs with the variety of technology-delivered modules, courses, and programs that are currently being developed by new and existing state, regional and national entities.

These issues have not matured to the point where it would be possible for this task force to address them. Therefore, the task force's final proposal is that APASC develop new goals to address these emerging issues, once the current set of goals and task force proposals have been fully implemented.

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