



TMC Development – An Overview of Discipline Selection

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When Senate Bill 1440 (Padilla, 2010) was passed and the academic senates of the California Community Colleges (CCCs) and the California State University (CSU) came together to select disciplines for the development of Transfer Model Curricula (TMCs) that are now the basis for Associate Degrees for Transfer that guarantee students admission into the CSU system, several factors were considered as disciplines were prioritized. A dominant factor was the number of students transferring from CCCs into a given major at the CSU. Others were given priority because much of the work needed to develop a TMC had been completed during projects that focused on the identification of major preparation coursework, such as IMPAC (Intersegmental Major Preparation Articulated Curriculum) and LDTP (Lower-Division Transfer Project.) In addition, some disciplines were brought into this effort due to their role in supporting a wide variety of majors (such as mathematics), the recognition that they serve a critical role in supporting disciplines identified as being in high demand (e.g., elements of science technology engineering and math or “STEM” majors), and their status within the Course Identification Numbering System (C-ID; C-ID descriptors are used to specify required courses in a TMC). In addition, some disciplines were selected due to their status as career technical education (CTE) majors, though this emphasis came later in the project. The STEM TMCs include: Biology, Chemistry, Computer Science, Mathematics, and Physics. CTE disciplines for which TMCs have been created include Administration of Justice and Agriculture (3 TMCs).

In reviewing the transfer numbers as work progressed and efforts proceeded well-beyond the “top 20” majors, analyses were done to determine whether or not TMC development made sense for any major that served at least 200 transfer students based on the available data. In order for TMC development to make sense, the major had to be available at a minimum of 4 CSUs and there had to be some element of consistency in the lower division preparation for the major across the CSU campuses. In some instances, disparate programs of study were identified as being a single transfer major for TMC development.

On the following page, a summary of the status of the “top 20” transfer majors is provided. When the various business disciplines were convened, the business faculty determined that their programs varied little at the lower division level and that one “Business Administration” TMC would be developed to serve business administration, accountancy, management, marketing, and finance. TMCs have been developed or are “in progress” for all of the top-20 transfer majors (with the obvious exception of “undeclared”).

The art major (#12) is served by both a Studio Art and an Art History TMC. Child Development/Early Childhood Education was initially served by an Early Childhood Education TMC, but a Child and Adolescent Development TMC has now been developed to recognize the diversity in these degree programs. There is an inherent challenge with respect to developing a TMC for nursing and for the other forms of nursing as most CCC nursing programs award an Associates Degree in Nursing (ADN) that exceeds the 60-unit limit imposed by SB 1440. While some CSUs reference something called “pre-nursing”, this is generally not an actual major or a program that a student can transfer into at the CSU. As

explained on the [CSU East Bay Nursing website](#)), “Pre-Nursing is a designation of career interest (not an official major) at CSUEB. Students interested in applying to the Nursing major must first be admitted to the University.” In order to address the interest in facilitating CCC-CSU transitions into nursing, a “model curriculum” has been developed that would serve these students and would recognize common lower division preparation for the nursing major. The development of a model curriculum is intended to facilitate student goal completion by establishing comparable requirements for the ADN across the CCCs.

Table 1 2009-10 CCC Transfer Enrollments by Discipline

Systemwide Major Degree Name	Total Transfer Enrollments	Percent of Transfer Enrollments	TMC Status
Business Administration	4045	10.7%	Completed
Psychology	2868	7.6%	Completed
*Liberal Studies	2049	5.4%	Completed
Sociology	1428	3.8%	Completed
Accountancy	1304	3.5%	Completed
Criminal Justice	1300	3.5%	Completed
Kinesiology/Physical Education	1209	3.2%	Completed
Management	920	2.4%	Completed
Communications	906	2.4%	Completed
Biology	904	2.4%	Completed
History	848	2.3%	Completed
Art	845	2.2%	Completed
Child Development/Early Childhood Education	816	2.2%	Completed
English	804	2.1%	Completed
Pre-Nursing	775	2.1%	TBD
Marketing	605	1.6%	Completed
Political Science/Government	578	1.5%	Completed
Finance	567	1.5%	Completed
Speech Communication	566	1.5%	Completed
Social Work	470	1.2%	In Progress

*Liberal Studies” at the CSU is generally served by the Elementary Teacher Education TMC.

Faculty have been convened to develop a Social Work TMC, but completing these efforts has been delayed due to the desire to have all faculty who are appointed to do this work hold the MSW degree. It is hoped that this group will be convened in the near future.

Health Science ranks 21st and is intended to be served by the “Public Health Science” TMC. Within the majors ranked 20-40, additional nursing options are found and a number of engineering majors. Like nursing, engineering does not “fit” into the unit framework imposed by SB 1440. The Engineering Faculty Discipline Review Group has

completed their work on a number of engineering model curricula. Efforts are now underway to implement such “model curricula” in the CCCs, independent of the SB 1440 efforts.

Table 2 2009-10 CCC Transfer Enrollments by Discipline

Systemwide Major Degree Name	Total Transfer Enrollments	Percent of Transfer Enrollments	TMC Status
Health Science	425	1.1%	Completed
Nursing (RN-to-Nursing Degree)	419	1.1%	NA
Computer Science	418	1.1%	Completed
Radio-Television-Film/Telecommunications	413	1.1%	Completed
Civil Engineering	381	1.0%	NA
Nursing, Pre-Licensure	378	1.0%	NA
Mechanical Engineering	374	1.0%	NA
Undeclared	368	1.0%	NA
Mathematics	353	0.9%	Completed
Journalism	350	0.9%	Completed
Economics	332	0.9%	Completed
Communicative Disorders/Speech Pathology + Audiology	304	0.8%	No.
Anthropology	299	0.8%	Completed
Information Systems	275	0.7%	Completed
International Business	275	0.7%	Completed
Dietetics & Food Administration / Nutritional Science	270	0.7%	Completed
Human Services/Collaborative Human Services	249	0.7%	No.
Social Science/Social and Behavioral Sciences	229	0.6%	No.
Music	224	0.6%	Completed
Electrical Engineering	223	0.6%	TBD

Number 32, “Communicative Disorders”, is a collection of disparate majors that would not be well-served by a single TMC. “Information Systems” often has a lower division preparation that is not unlike that of many of the business options served by the Business Administration TMC. The Business Administration TMC will serve some information systems majors as well as some international business options. The Human Services and Social Sciences are served by the wide variety of TMCs in these areas that already exist.

As noted, serving 200 students was an initial criterion for TMC development. As we examine the next 20 majors, we drop below this minimum number. Where the number of transfer students is below that minimum and a TMC has been developed, the reason for the inclusion of that discipline has been noted.

Table 3 2009-10 CCC Transfer Enrollments by Discipline

Systemwide Major Degree Name	Total Transfer Enrollments	TMC Status
Human Development	220	Completed
Spanish	200	Completed
Graphic Design	198	In progress – CTE
Chemistry	194	Completed - STEM
Theatre Arts	187	Completed – Established in C-ID
Public Administration	183	
Environmental Studies/Environmental Science	182	In progress – CTE
Public Relations	176	
Hotel and Restaurant/Hospitality Management	175	Under Consideration – CTE
Family and Consumer Sciences/Home Economics	173	
Philosophy	162	Completed – Lower division preparation identified
Biochemistry	161	
Recreation Administration	153	
Geography	148	Completed - Lower division preparation identified
Construction Engineering Technology/Management	127	
Computer Engineering	113	
Diversified Studies/Education	112	
Music (Professional Performance)	108	
Advertising	101	
Geology	96	Completed - Lower division preparation identified

As a consequence of Senate Bill 440, TMC development continues with a focus on creating TMCs that feed into a number of different CSU majors. It is hoped that these “area of emphasis” TMCs can effectively establish pathways from the CCC to the CSU in majors that students commonly do not select for study until after transfer.