

# FACILITATING TRANSFER STUDENT SUCCESS WITH SERVICES AND PROGRAMS

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## BACKGROUND

The STEM Transfer Student Services (STSS) Office was established in 2008 and is funded by a National Science Foundation grant. The mission of the Office is to provide support services to transfer students as they acclimate to CSU Fullerton. Since 2008, the STSS Office has served 530 students or about 33% of the incoming science, technology, engineering, mathematics (STEM) transfer population. In an effort to learn more about the experiences and perceptions of the transfer student population, staff at CSUF disseminated three surveys and reviewed transcripts of students who had transferred to CSUF as STEM majors.

### Pre-transfer Survey (n=1123)

A literature review revealed there were few questionnaires or survey tools specifically aimed at gaging STEM transfer student experiences. The validity was enhanced via focus groups and pilot testing.

- 87 questions were organized into 5 sections: demographics, general community college academic information, degree and transfer plans, experiences in STEM community college courses, and experiences with STEM community college networks of support.
- Students were surveyed at two feeder community colleges in STEM related GE and major classes.
- Over 90% of the students surveyed intend to transfer to a 4-year institution and ~50% intend to transfer into a STEM major.
- Resources that influence successful completion in STEM: access to instructors regarding material/assignments, working with other students (instead of alone) on problem sets, having access to people that can mentor in math/science.
- ~50% Latino/Latina students surveyed were the first in their immediate family to attend college.
- ~40% Latino/Latina students surveyed intended to major in STEM.

### Post-transfer Survey (n=247)

A pool of 1075 students were solicited via e-mail, letters, and class announcements. Students included had transferred to CSUF between the fall of 2008 and the fall of 2010. Students were surveyed anonymously via Zoomerang. Validity was enhanced via focus groups, student interviews, and pilot testing.

- 84 questions were organized into 4 sections: demographics, experiences at the community college, experiences as a transfer student to CSUF, and experiences as a STEM major at CSUF.
- 36% of the students surveyed are the first in their immediate family to attend college.
- 53% of the students chose to attend a community college first despite being eligible to attend a 4-year institution. The top two reasons why students attend a community college instead: tuition/related expenses and being undecided about their major.



### Advisement Perception Survey

In order to gain the perspective of new transfer students about their advisement history and experiences, the Transfer Student Advisement (TSA) Survey was administered during the 2011 Transfer Student Orientations. 66 students in the College of Natural Sciences and Mathematics took the TSA.

- As stipulated by Smith (2002), advising can take two primary forms: 1) developmental, where students are engaged in thoughtful dialogue with an advisor regarding their personal, academic, and career options and 2) prescriptive, where a knowledgeable advisor steers students into the right direction and the advisor is assertive while the advisee is passive.
- When given a choice between scenarios, students selected a developmental approach for 6 of 8 questions.
- Results demonstrate that participants were predominantly advised by unassigned community college counselors through an advising center. About 41% were advised by an assigned advisor and 9% reported receiving no advisement at all. Over 80% of participants experienced advisement sessions of 30 minutes or less.

### Transcript Review

The goal of this project was to determine common factors, specifically academic preparation, for students intending to be science and math majors.

- 532 transcripts were examined of students who came into the College of Natural Sciences and Mathematics during the fall semester between 2005 and 2010.
- 13% of the students have graduated and 55% of the students continue to persist.
- Transfer students GPA decreases slightly after their first semester at CSUF. Mean transfer GPA = 2.9. Mean first semester GPA = 2.72

### Next Steps

Based on the data collected from the surveys, the programs, services, and advisement geared toward the STEM transfer student population can be augmented to better meet their needs.

## STEM TRANSFER STUDENT SERVICES

### Transfer Student Orientation

- Opportunity to meet individually with an faculty advisor prior to registration and receive information about services and programs for transfer students.

### Peer Mentors

- Four STEM majors are selected and trained each year for the peer mentor positions. Peer mentors inform students major requirements, undergraduate research opportunities, and major specific clubs and organizations.
- Successful STEM student peers provide advisement and support for incoming STEM transfers and organize social, educational and awareness events. Examples include: food drives, time management workshops, ice cream socials, bowling night, resume/cover letter workshops.
- Astin (1993) believes mentoring programs that connect students to their peers has the ability to influence growth and development during college.

### Early Warning System

- After a referral from a faculty member, students meet with a staff member early in the semester to find solutions to academic problems.
- Programs such as the early warning system are based on the belief that an early academic alert may foster retention and success if proper advisement is provided (Tinto, 1993)

### Book Scholarships

- \$500 book scholarships. First year transfer students are eligible and can apply for two consecutive semesters. In order to qualify, students must be enrolled in 12 or more units, meet with a STEM Peer advisor, participate in a student organization, and attend a STSS Office event.

### Research Mini Grants

- Five undergraduate research mini grants were distributed to students at the community colleges to encourage student and faculty engagement in research at CSUF.

### References

Astin, A.W. (1993). What Matters Most in College: Four critical Years Revisited. Jossey-Bass Publishers, San Francisco, California

Smith, J.S. (2002). First-Year Student Perception of Academic Advisement: A Qualitative Study and Reality Check. NACADA, pg. 39-49

Tinto, V. (1993). Leaving College: Rethinking the Causes and Cures of Student Attrition. 2<sup>nd</sup> Edition. University of Chicago Press, Chicago, Illinois