



The STEPUP Experience

STUDENT PREPARATION FROM A HOLISTIC PERSPECTIVE



HERBERT WERTHEIM

COLLEGE *of* ENGINEERING



The STEPUP Experience

OVERVIEW

The Successful Transition and Enhanced Preparation for Undergraduates Program (STEPUP) recognizes talented students and provides them with enriching academic, professional, and personal development experiences that promote success in engineering. All students in the program become part of a unique cohort of fellow students with peer and faculty mentors. The rigorous activities and shared challenges of STEPUP enable each cohort to develop a commitment to active and informed togetherness as the students progress through their engineering studies – which forms the heart of the STEPUP experience. STEPUP is a part of the Herbert Wertheim College of Engineering's (HWCoe) commitment to provide a diverse and inclusive learning environment through aggressive recruiting of underserved and historically underrepresented communities.

"PARTICIPATING IN STEPUP ALLOWED ME TO HAVE OPPORTUNITIES THAT NOT MANY INCOMING FRESHMAN STUDENTS WOULD HAVE. I NETWORKED WITH UPPERCLASSMEN ENGINEERS WHO GUIDED ME IN THE RIGHT DIRECTION AND INTERACTED WITH RENOWNED FACULTY THAT MANY FRESHMAN WOULD NOT HAVE THE OPPORTUNITY TO MEET UNTIL THEIR LATER YEARS. STEPUP IS A FAMILY THAT MOTIVATES YOU AND WANTS YOU TO SUCCEED IN EVERYTHING."—KIMBERLY GANT, INDUSTRIAL AND SYSTEMS ENGINEERING STEPUP ALUM; NOW AT PACIFIC GAS AND ELECTRIC COMPANY



POWERING

THE

NEW

ENGINEER

HISTORY

The Successful Transition and Enhanced Preparation for Undergraduates Program (STEPUP) was founded in 1993 by Dr. Johnathan F.K. Earle, former Associate Dean for the College and visionary before his time. The program became the college's first summer-bridge transition program targeting all freshman engineering students with a particular focus on increasing the retention rates of underrepresented student populations (i.e. women, African-American, Hispanic/Latino, and Native-American).

Over twenty years later, the STEPUP program continues to assist engineering students in persisting throughout the critical first year in engineering, while at the same time providing a support structure that promotes students' academic, personal, and professional development throughout the entire undergraduate experience.

The Entering Freshman Transition program (EFTP) was founded ten years after the STEPUP program due to its enormous success in increasing the graduation rates among students participating in the program. Prior to the creation of EFTP, the STEPUP program was limited to a maximum of 50 students based on corporate funding. EFTP serves as a sister program to STEPUP and has allowed the College to increase first-year student participation in Gator Engineering summer-bridge programming by over 100%.

The vision for both programs is to provide student participants with a support structure that:

- Promotes their academic, personal, and professional development throughout the entire freshmen year and undergraduate experience
- Assists students in developing a strong freshmen cohort and positive peer support system
- Allows the student to tailor the summer bridge experience based on three different program tracks offering different levels of intensity to best fit student needs
- Exposes student participants to the world of engineering through a project-design course, as well as, interactions with current engineering students, faculty, and corporate representatives

"I DECIDED TO PARTICIPATE IN THE STEPUP PROGRAM AFTER HEARING ONE OF THE PROGRAM DIRECTOR'S DESCRIBE NOT ONLY THE BENEFITS OF THE PROGRAM, BUT THE CHALLENGE AS WELL. FEELING THAT I COULD RISE TO THE CHALLENGE, I JOINED THE PROGRAM. FIRST AND FOREMOST, I GAINED A FAMILY OF FELLOW STUDENTS, WHO ALL BANDED TOGETHER TO GET THROUGH THE PROGRAM. ALSO, STEPUP PREPARED ME TO BE A STEP AHEAD OF THE COMPETITION WITH ITS GRUELING CLASS SCHEDULE AND TOP LEVEL INSTRUCTORS." —*DERICK DIAZ, MECHANICAL ENGINEERING, STEPUP ALUM; NOW LEAD MECHANICAL ENGINEER AT GE TRANSPORTATION*

INNOVATIVE EXPERIENTIAL APPROACH TO STUDENT SUCCESS

STEPUP takes an experiential learning approach that has been shown to provide numerous benefits including:

- accelerates learning
- bridges the gap between theory and practice
- enables personalized learning
- produces demonstrable mindset changes
- increases engagement

The integration of project-based experiential learning is the perfect vehicle to deliver opportunities that enhance teamwork and leadership, and to train students with what we term the Attributes of a Gator Engineer. It enables them to be socially-conscious and to work with diverse people. Our faculty work on the cutting-edge of research problems in healthcare, energy, manufacturing, etc. and know that our students must be prepared to work across disciplines.

ATTRIBUTES OF A GATOR ENGINEER

1**CREATIVITY**

imagination, versatility,
artistry, ingenuity, curiosity,
resourcefulness

2**LEADERSHIP**

entrepreneurial, engaging,
effective, professional,
visionary, inspiring

3**INTEGRITY**

honest, ethical, hardworking,
persistent, drawn to
right action

4**PROFESSIONAL
EXCELLENCE**

technical competence, area
expertise, insight, resolve

5**SERVICE TO
THE GLOBAL
COMMUNITY**

tolerance, respect, interdependence,
cooperation, compassion, expanded
awareness of financial, societal,
legal and cultural influences

PROGRAM COMPONENTS

STEPUP consists of two major components:

Residential

Conducted during the summer of their freshman year, the residential component addresses the majority of potential issues and challenges that can negatively impact first-year underrepresented students. The rigorous 6 weeks, 14 hours per day program involves supplemental instruction in chemistry and calculus. There is a strong personal and professional development component that includes an Introduction to Research course, hands-on lab experience, a corporate speaker series and corporate tours. A course in problem solving and design is required where students learn computer aided design and analytical software such as SolidWorks and MATLAB. Participants live together, work together, and share meals together.

Non-Residential

Conducted during the student's first fall and spring terms, the non-residential component involves strong peer, faculty, and professional mentoring. Students are required to attend study hall sessions and Student Success Workshops on topics ranging from time management and resume development to test-taking skills. Group meetings with their mentors are regularly scheduled. Students also participate in the campus career showcase to identify summer internship opportunities after their first year.

STEPUP participants embody the following metrics, of which we are proud to highlight:

- UF students participating in STEPUP over the past 20 years have had an average retention rate of 83%.
- All UF Engineering students not participating in STEPUP have experienced a retention rate of 75%.
- Female UF Engineering students not participating in STEPUP have a retention rate of 71%.
- Many STEPUP students are from backgrounds that historically have experienced a greater risk for failure in the university setting. However, the high first-year retention rates of STEPUP students compared to their cohorts is a clear indication of the success of the program.



COMMITMENT TO DIVERSITY HIGHLIGHTS

- #2** • Ranked #2 producer of engineering degrees to Hispanic students (2014-2015 Diverse Issues in Higher Education)
- #4** • Ranked #4 among Hispanic engineering students receiving master's degrees and #7 for receiving doctoral degrees (2014 Engineering Workforce Commission)
- #6** • Ranked #6 producer of engineering degrees to African- American students (2014-2015 Diverse Issues in Higher Education)
- #10** • For graduating female engineering candidates, UF earned #6 in master's degrees and #10 in doctoral degrees (2014 Engineering Workforce Commission)
- #14** • UF Ranked #14 out of 50 Best Colleges for African-Americans (2016 Money Magazine)

HOW YOU CAN PARTNER WITH US?

- The STEPUP Program has grown tremendously in its 20+ years and seeks to accelerate that growth. To do so, the program has a goal of increasing its current student enrollment in the program from 30 to 60 within the next few years.
- Increasing the ability to enroll more students into STEPUP is the primary goal! The more students we are able to involve and grow, the better served our engineering community will be.

Your partnership could include the following:

- Sponsoring STEPUP students with a financial commitment
- Mentoring students 1:1 on research design projects
- 1:1 corporate mentoring and professional coaching opportunities
- Study abroad programs with corporate involvement
- Summer internships at industry locations
- On-campus lecture and mentor opportunities

MEET OUR STAFF



“STEPUP is one of our premiere programs for developing talented engineering leaders. Please join us in expanding this program and supporting our students.”

Dr. Curtis R. Taylor, Ph.D.

ASSOCIATE DEAN, STUDENT AFFAIRS
HERBERT WERTHEIM COLLEGE OF
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