EXCEL
IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

ENROLLMENT IS LIMITED
Apply early at excel.ucf.edu.
A Message from the Program Director

Dear Prospective Student,

The EXCEL program is structured to build strong math skills. Once you possess a strong mathematics background, science and engineering subjects are easier to master. The program offers support and mentoring for all required courses common to engineering, science and math majors.

At UCF, ensuring that Science, Technology, Engineering and Mathematics (STEM) majors achieve success is a top priority. The fast-paced nature and technical curricula of the STEM majors are challenging but EXCEL, with its comprehensive and well-planned support structure, prepares students for success, starting with the most critical first two years of college.

We want you to expect success. And we can help you along the way.

Sincerely,

Melissa A. Dagley
Executive Director, Initiatives in STEM

EXCEL in Science, Technology, Engineering and Mathematics

EXCEL.ucf.edu

EXCEL Gets Results

Since its inception in 2006, the EXCEL program has recruited more than 1,500 students. EXCEL has increased the success of students, defined by staying in a STEM major, by 42 percent compared to UCF STEM students who have not been part of the EXCEL program.

Every year (spring of a student’s sophomore year), more than 40 students participate in research experiences with a UCF STEM professor, becoming a part of the professor’s research team and getting a taste of research.

Students who participate in sophomore research experiences have an excellent chance of continuing their research in their junior and senior years, through established fellowship programs at UCF, such as Research and Mentoring Program (RAMP), McNair Scholars and Young Entrepreneur and Scholar (YES).

What is the EXCEL Program?

The EXCEL program helps you understand mathematical and scientific concepts. An EXCEL advisor designs an academic plan for you and closely follows your progress. A graduate student mentor helps you in math and science courses. One-hour seminars assist you in transitioning to the STEM college environment and introduce you to the concepts of research.

The program increases student achievements in freshman and sophomore-level math and science courses. The cornerstone of success in STEM disciplines. EXCEL brings students together to learn and build connections among students and faculty.

During your sophomore year, you participate in paid research experiences.

The first two years of college go by quickly. As a science, technology, engineering or mathematics (STEM) major, EXCEL can help make those years successful.
EXCEL is for you ...

If you:
Are admitted to UCF with the intent to major in Science, Technology, Engineering or Mathematics.
Have taken a minimum of Algebra II and Trigonometry or a minimum of Pre-calculus.
Scored at least a 550 Math SAT.
Want to make friends and connections with students in other STEM disciplines.
Enjoy study groups and structured programs.
Want to have a rewarding college experience that leads to a successful STEM career.

Why EXCEL?
• EXCEL students who are awarded housing contracts can be housed in the same block.
• Each student builds a carefully planned, co-developed educational schedule with the EXCEL academic advisor.
• EXCEL students interact with our community of undergraduate and graduate students, faculty and staff one-on-one or in small group settings.
• EXCEL students get blocks of seats in Calculus classes to learn with people you know.
• EXCEL courses are taught by outstanding faculty.
• EXCEL helps sophomore students get involved in research and offers a paid experience.

EXCEL Stars

ANTHONY SEABERT Class of 2006
Anthony was accepted into the Young Entrepreneur and Scholar (YES) program upon completion of his EXCEL undergraduate research experience and presented at the YES annual spring symposium his junior and senior years. Anthony completed both a B.S. in mechanical engineering and an M.S. in engineering management at UCF before going to work with Halliburton doing design, manufacturing and field testing.

KEON VEREEN Class of 2006
Keon took advantage of all EXCEL had to offer. After participating in the EXCEL undergraduate research experience, he was chosen as a McNair Scholar to continue his research work. Upon graduation with a B.S. in aerospace engineering he was awarded the RAMP Master’s Fellowship. Keon began his next journey when he was awarded the National Science Foundation’s Graduate Fellowship and moved to the University of Washington to pursue a Ph.D. in aerospace engineering.

CAROLINA ACEVEDO PARRA Class of 2007
Carolina participated in the EXCEL undergraduate research experience then moved on as a YES Scholar. Her research led to statewide recognition at the annual meeting of the Florida Society of Environmental Analysts. Carolina believes, “Being a part of the EXCEL program was the most memorable part of UCF for me. I was not only able to make lifelong friends, but I was also able to gain lifelong knowledge and unbelievable opportunities. The EXCEL program holds high expectations of success for all students, and it does not hurt that it provides amazing support to go along.” She is currently pursuing her Ph.D. in chemistry at UCF.

DIANIELLA BADAL Class of 2008
Daniella graduated with a B.S. in biomedical sciences, but chose to do her EXCEL undergraduate research in engineering technology. She served EXCEL as a Girls EXCELling in Math and Science (GEMS) mentor for two years, performed as an EXCEL Welcome Party team leader and assisted in the coordination of several EXCEL volunteer and social activities including serving as a judge for Science Olympiad. Pursuing her Doctor of Pharmacy at the University of Florida’s Pharmacy school at Lake Nona, Daniella was the recent recipient of the Jerry Elaine Klimetz Memorial Scholarship for academic achievement and leadership.

WHITNEY KEITH Class of 2008
Whitney won the 2010–11 Astronaut Scholarship, awarded only to a handful of exceptional students around the U.S., for the research work she conducted with the Mathematics Department. This scholarship is provided to students who exhibit motivation, imagination and exceptional performance in the science or engineering field of their major. Whitney served as a GEMS mentor her senior year. Upon completion of her B.S. in electrical engineering, Whitney went to work with the Ford Motor Company.
The EXCEL Center

The EXCEL Center offers services and activities such as tutoring and advising. Free tutoring by graduate students is available in College Algebra, Pre-calculus, Calculus, Differential Equations, Biology, Chemistry and Physics. A computer lab and study area provide places for students to study and interact.

EXCEL students have a designated graduate student mentor. EXCEL advisors and college advisors are available to all EXCEL students during advising days and by appointment.

“As a student who wants to have a career in the field of aerospace engineering, I began my collegiate career by participating in opportunities like the EXCEL program to learn about science, technology, engineering and mathematics. After being a part of the program, I can say without hesitation that the EXCEL program was a catalyst toward my career aspirations. If you want to be a leader that tackles some of the challenges that we face in the 21st century, then the EXCEL program will offer you enormous resources toward your future endeavors.”

Keon Vereen
Aerospace Engineering

Where can I start a career?

EXCEL Career Opportunities

Through its carefully planned educational activities, EXCEL will prepare students for rewarding careers in any of the following disciplines:

“EXCEL has been one of the greatest resources that I have had the privilege of using throughout my college experience. Not only did I meet a group of amazing, hard-working, goal-oriented friends, I was able to succeed in both of my math classes due in large part to the help of the graduate students and to the EXCEL teachers, who made it their goal that their students achieve academic success!”

Ashleigh Guinn
Biomedical Sciences

EXCEL Pathways to STEM

EXCEL FRESHMAN YEAR

EXCEL mathematics faculty determine a student’s Pathway of Study based upon their math placement test results.

Students meet with an advisor at the beginning of the semester to ensure that each has the right mix of classes.

EXCEL students participate in one of four Pathways of Study:
1. College Algebra in the fall and Pre-Calculus in the spring
2. Pre-Calculus in the fall and Calculus I in the spring
3. Calculus I in the fall and Calculus II in the spring
4. Calculus II in the fall and Calculus III in the spring

Students who take College Algebra, Pre-calculus, Calculus I and Calculus II classes participate in unique recitation sessions. These sessions enhance and reinforce students’ understanding of math concepts.

EXCEL students who take College Algebra, Pre-Calculus, Calculus I and Calculus II classes are continuously mentored. Students are advised to visit the EXCEL Center for tutoring and meet with their graduate student mentor.

Special classes called EXCEL Seminar I and II are also taken. These courses encourage community building and provide information and tools necessary for student transition and academic success. Seminar I introduces students to the concept of undergraduate research experiences in STEM disciplines and focus on academic success. Seminar II focuses on exposing the EXCEL students to STEM faculty and researchers. These classes are offered only to EXCEL students.

EXCEL Courses and Undergraduate Research Experiences (URE)

EXCEL SOPHOMORE YEAR

After completing required math and science classes during the freshman year, EXCEL students have the opportunity to continue with EXCEL math courses, through Calculus III, in their second year. Additionally, EXCEL students have the option of taking part in paid research experiences in their sophomore year. The goal of the undergraduate research experience is for students to see and experience research firsthand.

In the fall semester, EXCEL students pair with UCF STEM faculty mentors and participate in research preparatory workshops. In the spring, students and faculty team up according to their research interests.

More than 40 EXCEL sophomore students participate in the research of a UCF STEM professor every year.

EXCEL students involved in Undergraduate Research Experiences are well prepared for future, paid research experiences at UCF.

EXCEL Undergraduate Research and Entrepreneurship Experiences

EXCEL JUNIOR and SENIOR YEARS

The EXCEL sophomore research experience prepares students for additional opportunities in their junior and senior years.

Programs include:
- Young Entrepreneur and Scholar Program (funded by the National Science Foundation)
- McNair Program (funded by the Department of Education)
- RAMP Program (Research and Mentorship Program funded by UCF)

Eligible EXCEL students have the opportunity to work with a UCF STEM professor or an industry mentor to better prepare them for graduate school or a career in industry.

Paid undergraduate experiences (research or entrepreneurship) establish learning communities, which offer enhanced educational experiences and connections with faculty, graduate students and industry professionals.

“The EXCEL program provides an opportunity for freshman and upper-level research faculty to interact in a learning environment that fosters questions and inquiry. The students get to know faculty that they wouldn’t otherwise see for two years, know a bit of what they do for research and how it will apply to their education.”

Dr. Cherie Yestrebsky
EXCEL Faculty, Professor of Chemistry
Women’s Mentorship Network

To meet the goal of increasing underrepresented graduates in the STEM workforce, EXCEL has established a women’s mentorship network. This network provides for peer mentors in the freshman year and industry mentors in the sophomore year. These relationships provide personal support early in the student’s transition to the university, academic support in the chosen field, and career support through setting goals, defining a career path, and performing as a role model for the mentees.

GIRLS EXCELLING IN MATH AND SCIENCE (GEMS)

First-year EXCEL students are assigned an upperclass GEMS mentor. These mentors are hand-picked from EXCEL alumni and trained by the EXCEL staff. Students receive communications during the summer before arriving at UCF as well as GEMS-sponsored industry and faculty networking events and socials throughout the first year of college.

WOMEN IN SCIENCE AND ENGINEERING (WISE) @ UCF

Second and third-year EXCEL students have the opportunity to be paired with a STEM industry professional for a six-month mentoring program. In addition to meeting with the WISE mentees, the industry mentors provide access to industry partners for internships.

Not only has the EXCEL program helped and motivated me to study engineering, but it has also helped me to connect with fellow classmates and teachers who have similar interests. These are the people who you want to be with throughout your college career.”

Kenzo Mendoza
Electrical Engineering

“EXCEL has offered me many opportunities. The one that I enjoyed the most is being able to apply what I’ve learned in class to the real world. From applications of Calculus I until now, in the YES program, being a part of the Machine Learning Lab, I have made great friends that share my passion for engineering.”

Giselle Borrero
Computer Engineering

“Being in EXCEL has opened a plethora of opportunities. Through this experience I have had access to various resources such as living with fellow students in my major, tutoring for my math and science courses, and a chance at undergraduate research.”

Stacy Glass
Electrical Engineering

“The WISE mentoring program changed my life… Because of my mentor’s guidance, I learned how to effectively talk to recruiters at job fairs and how to have a successful interview. I applied for three different internships and received offers from all three!”

Leah D’Agostini
Computer Science
How do I apply to the EXCEL Program?

Get admitted to UCF and declare a Science, Technology, Engineering or Mathematics major.

ENROLLMENT IS LIMITED, SO APPLY EARLY. Download an application at excel.ucf.edu.

For more information:
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