Joint Engineering Program

University of Missouri–St. Louis • Washington University in St. Louis

ELEVATE YOUR FUTURE.
ELEVATE ST. LOUIS.
The University of Missouri–St. Louis and Washington University Joint Undergraduate Engineering Program offers Bachelor of Science degrees in Civil, Electrical and Mechanical Engineering.

Our engineering program is designed for both full-time and part-time students. Each student will complete his or her first two years of studies (mathematics, science and general education courses) on the UMSL campus before transitioning to the WashU campus to complete upper-level engineering courses. Many students transfer to UMSL from local community colleges to enter the Joint Program. Students pay UMSL tuition plus an engineering fee and receive their engineering degrees from UMSL.

Joseph A. O’Sullivan, Ph.D.
Dean, UMSL/WUSTL Joint Undergraduate Engineering Program
The Samuel C. Sachs Professor of Electrical Engineering

An affordable and convenient St. Louis engineering education that enables students to enrich communities, businesses and lives

Almost all of the engineering classes are taught in the late afternoon or evening at Washington University by local industry professionals and WashU engineering professors using WashU teaching laboratories, computer laboratories, libraries and placement services. The afternoon and evening schedule allows our students to take advantage of local internship and co-op positions that provide income while the student is attending school, but, more importantly, these programs often lead to immediate job opportunities upon graduation.

Full-time students pay UMSL tuition plus an engineering fee per student credit hour. The majority of Joint Engineering students receive financial aid in the form of loans or scholarships through the help of UMSL’s financial aid office.

To date, more than 800 students have graduated from the Joint Engineering Program.

average class size of upper-level engineering courses

19
All three engineering programs, B.S. in Civil Engineering, B.S. in Electrical Engineering and B.S. in Mechanical Engineering are accredited by the Engineering Accreditation Commission of ABET.

@abet.org

Civil Engineering

- Structural analysis and design
- Water resources and environmental engineering
- Construction operations and management
- Transportation and urban planning
- Geotechnical engineering

Electrical Engineering

- Communication networks
- Defense and aerospace electronics
- Energy generation and distribution
- Motor and actuator development
- Security systems

Mechanical Engineering

- Alternative energy
- Automotive engineering
- Biomechanics
- Environmental control
- Robotics developments and applications

Experienced faculty and access to resources from both UMSL and Washington University

The program offers free tutoring for all science, mathematics and engineering courses. Financial aid is available to make every effort so that a student is able to graduate.

Students have both a Washington University and an UMSL engineering adviser, who guide the students through registration of classes and co-op, internship and permanent job opportunities. The student engineering organization invites practicing engineers to speak, ensuring exposure to the current practice of engineering and motivation for engineering majors and courses.

Joint Engineering students also benefit from UMSL’s Career Services and WashU’s Career Center. Both universities hold annual job fairs that provide students opportunities to meet with employers from across the country to discuss co-ops, internships and employment.

Students with internship experience received a 20 percent higher salary offer on average.

4.6K full-time job opportunities posted through UMSL’s Career Services and WashU’s Career Center in one year
Flexible schedules with evening classes and internship opportunities make this program especially convenient for traditional and nontraditional students.

One of the things I enjoyed the most about the Joint Program is the abundance of opportunities. We are inundated with information about internships and networking events regularly. Since most of our professors are adjunct, we are able to form networks within different companies before we graduate."

ERIC EL JOHNSON
Major: Electrical Engineering

A world-class education

UMSL’s tuition, faculty and facilities, combined with WashU’s reputation as a world-class engineering school, is a value that cannot be matched by any other university in the region. This is the only opportunity in the St. Louis area where students can choose to pursue an engineering degree on either a full-time or part-time basis.

The majority of Joint Engineering faculty are professional engineers who have first-hand knowledge of the skills and training that engineers need in today’s competitive workforce. These faculty also serve as mentors to students, providing career advice and insight.

Both UMSL and WashU campuses are centrally located and readily accessible using public transportation. The MetroLink has multiple stops on both UMSL and WashU campuses.

Entrepreneurship

UMSL Accelerate, a business accelerator located within the university that serves as a hub for entrepreneurship

Cortex Innovation Community: 200-acre innovation hub and technology district

IDEA Labs: student-run biotechnology incubator that provides resources, training and mentorship to teams of students
By offering coursework primarily during the evening hours, the majority of Joint Program students are able to jump-start their careers by working part time as interns at local engineering firms while attending classes. Students have access to career services at both UMSL and WashU.

The following are St. Louis firms that have supported Joint Engineering students through internships and cooperative employment:

» Abeinsa EPC
» Air Products and Chemicals Inc.
» Ameren Corp.
» Anheuser-Busch InBev
» Bernardin, Lochmuller & Associates
» Boeing Co.
» bioMérieux Inc.
» Burns & McDonnell
» Code 3 Inc.
» Cardinal Surveying & Mapping Inc.
» City of Clayton
» Clayco
» ControlTech Automation
» Emerson Climate Technologies
» Hermetic Motor
» Hunter Engineering Co.
» Innoventor Inc.
» Lickenbrock Technologies
» LMI Aerospace Inc.
» Metropolitan St. Louis Sewer District
» Microgrid Solar
» National Cart Co.
» Natoli Engineering Co.
» Nidec Motor Corp.
» Pandjiris
» Peabody Energy Corp.
» Power Engineering
» Schweitzer Engineering Laboratories Inc.
» UMSL Planning and Construction
» Watlow

As a student, T. Christopher Peoples applied for an entry-level position at Pitzman’s Company of Surveyors and Engineers based in St. Louis. In 2010, he purchased a majority stake in the firm and became president and CEO. He received the UMSL Young Alumni Award in 2013.

Y. CHRISTOPHER PEOPLES
Civil Engineering, 2008

Regardless of career path, our students have the confidence, credibility and resources needed to succeed. Most Joint Engineering graduates remain in the St. Louis region as employees of local engineering firms.

Engineers are in high demand, and their employment in the St. Louis region enriches the community. Estimates by the U.S. Department of Labor project an 11 percent overall growth in the number of engineering jobs in St. Louis over the next decade.

Starting salaries for 2016 entry-level engineering jobs in the St. Louis area

<table>
<thead>
<tr>
<th>Field</th>
<th>Starting Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Engineering</td>
<td>$62,441</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>$64,234</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>$63,293</td>
</tr>
</tbody>
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* Starting salary (Entry Level) - January 2016 St. Louis Average
confidence, credibility & resources

Doors open for students of this program because it is powered by a unique partnership of two of the most respected educational institutions in the region.

University of Missouri–St. Louis
With nearly 17,000 students, UMSL is the largest public research university in eastern Missouri. It provides excellent learning experiences and leadership opportunities to a diverse student body whose influence on the region is immense.

UMSL is spread across 470 acres in suburban St. Louis County. It has a mix of modern and historic academic buildings as well as a variety of student residence halls, condominiums and apartments. It’s the perfect setting for students to gain unique insights from outstanding faculty and work experience from internships at companies and organizations found only in this world-class metropolitan region.

UMSL graduates can be found in all 50 states and 63 countries. But their greatest impact is felt right here in St. Louis. More than 65,000 UMSL alumni call the St. Louis region home. They drive the region’s economy and contribute mightily to its social well-being.

Washington University School of Engineering & Applied Science
Washington University is a global leader in research and education with nearly 12,000 full-time students, more than 3,000 full- and part-time faculty members and more than half a billion dollars in annual research expenditures. Nearly 60 of the university’s graduate and undergraduate programs currently hold a top 25 ranking by U.S. News & World Report.

The School of Engineering & Applied Science focuses intellectual efforts through a new convergence paradigm and builds on strengths, particularly as applied to medicine and health, energy and environment, entrepreneurship and security. With 88 tenured/tenure-track and 40 additional full-time faculty, 1,300 undergraduate students, more than 900 graduate students and more than 23,000 alumni, we are working to leverage our partnerships with academic and industry partners — across disciplines and across the world — to contribute to solving the greatest global challenges of the 21st century.

UMSL is ranked 14th nationally in a survey of “Best College and University Civic Partnerships” and has been named one of “America’s Best Colleges” by Forbes Magazine.

UMSL has more graduates living and working in the St. Louis region than any other university (according to the St. Louis Business Journal).

UMSL was one of four public Missouri schools that had an annual tuition under $20,000 and an average starting salary of over $40,000.

Recently invested with another $50 million planned in WashU Engineering facilities since 2001 and continues to develop a new, state-of-the-art engineering complex. St. Louis’ ranking for the fastest-growing city for tech jobs according to dice.com.

95% of Joint Engineering graduates were either employed or pursuing a graduate degree, according to the 2014-15 graduate survey results.

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Washington University School of Engineering & Applied Science