WFU Engineering
Educating the Whole Engineer

The best way to predict the future is to create it.

Dr. Olga Pierrakos
Founding Chair and Professor
April 2021
“If you always do what you always did, you will always get what you always got.”

Albert Einstein
Why Engineering?
No profession unleashes the spirit of innovation like engineering. From research to real-world applications, engineers constantly discover how to improve our lives by creating bold new solutions that connect science to life in unexpected, forward-thinking ways. Few professions turn so many ideas into so many realities. Few have such a direct and positive effect on people’s everyday lives. We are counting on engineers and their imaginations to help us meet the needs of the 21st century.
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Engineers better our lives and society
Why WFU Engineering?

Top 10 List
10. Our engineering curriculum is flexible and customizable. 60% is common knowledge / 40% is customizable.
#10 – Innovative Curriculum

- Over 30 Technical Electives
  - EGR 317. Renewable Energy Systems
  - EGR 318. Biomimetic Engineering
  - EGR 319. Environmental Engineering
  - EGR 320. Biomedical Applications
  - EGR 324. Hydrologic and Hydraulic Engineering
  - EGR 330. Infrastructure Systems Design
  - EGR 332. Structural Engineering
  - EGR 334. Mobile Robotics
  - EGR 338. Bioprinting and Biomanufacturing
  - EGR XXX. Biomaterials
  - Etc.

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Rolling Out 5 Concentrations Next Year

- Biomedical Engineering
- Bioprinting and Biomanufacturing
- Civil and Environmental Engineering
- Materials and Chemical Engineering
- Mechanical Engineering

(leveraging our existing degree credits)
9. There is theory and practice in every class and diverse projects across the curriculum. Experiential learning in action!
Our newly build and renovated spaces support innovative engineering practice.
8. We believe that engineers should have other interests. Over 50% of our students pursue minors or a second major.
7. We believe that engineers should explore the world. Over 50% of our students participate in study abroad. Europe, South America, Australia, Africa, Asia.
6. We believe that engineers should discover new knowledge. Over 50% of our students participate in undergrad research.
5. We believe that engineers should explore real-world practice. Over 70% of our students participate in internships. Some leveraging our unique location in the heart of Innovation Quarter.
4. We believe that engineers should make impact before they graduate. Our students participate in client-driven, year-long capstone design projects supported by faculty & external experts.

Challenge 1: Renewable Energy Technologies for Sustainable impact

Challenge 2: Environmental Solutions for Restoring Our Ecosystems

Challenge 3: Biomedical Engineering Innovations for Saving Lives
3. We believe that engineers should be leaders in their community (WFU and local partnerships). Our students take leadership roles across our community.

- Wake Forest Dance Company & Wake Forest Dance Team
- Head Coach of Wake Forest Women's Soccer Club
- Fraternity and Sorority Leadership Positions
- Wake Forest Chapter of the National Society of Leadership & Success
- Wake Radio Show Host
- Innuendo Co-Ed Acapella Group
- WFU Women in STEM
- Wake ‘N Shake Committee Member
- Skiing Club
- WFU Campus Garden
- ROTC
- OLAS (Organization of Latin American Students)
- Rock Climbing Club
- Virtual Tutoring for Children in Winston Salem
- Local Food Bank Volunteer
- WFU Media Council
- University President's Aide
- Reynolda Strings
- Mindful Wake
- Campus Kitchen
- Student Staff at Wakerspace
- Office of sustainability
- Resident Adviser
- Member of Black Student Alliance (BSA)
- Kids Cooking Coalition Student Leader
- Student Representative on the Faculty Athletics Committee
- HOPE KidsFest Hospitality Chair
- Storage Scholars Mover
- Habitat for Humanity volunteer
- MathCounts Volunteer
#2 – Graduating virtuous engineers.

We must remember that intelligence is not enough. *Intelligence plus character - that is the goal of true education.*

– Dr. Martin Luther King, Jr.

WFU awarded $700K+ to advance new model for engineering education

2. We believe that a successful engineer is a virtuous engineer. We bring a breadth of perspectives to the practice of engineering when we teach with humanists, social scientists, policy & business experts, etc.
#1 – Our diversity & inclusive culture.

Student Body

- 40% women
- 20% minorities
- 20+ states
- 12+ countries

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The average person has 10 jobs by the age of 40
Bureau of Labor Statistics

Most engineers have positions that are very different from the type of BS degree received

Industry continues to ask for more well-rounded competencies

The Best Performing CEOs have studied engineering

Because Educating the Whole Engineer means we are preparing our students for a lifetime of careers
Post Graduation Plans
Inaugural WFU Engineers

Class of 2021
Class of 2021 Post Graduation Plans

~65% Industry & Government
~23% Graduate Schools
~12% Professional Schools

80% placement (as of April 20, 2021)...and going up each day.
Class of 2021 Post Graduation Plans

- ~65%
- Industry & Government
  - Deloitte: Solutions Engineer
  - SST Automation: Sales Engineer
  - U.S. Army: 2nd Lieutenant
  - OTIS: Operations Engineer
  - Premier Health: Data Scientist
  - AstraZeneca: R&D Engineer
  - Schneider Electric: Leadership Development Program
  - EY: Technology Consultant
  - Oracle: Cloud Solution Engineer
  - Whiting-Turner: Project Engineer
  - Staff Civil Engineer
  - Digital Engineer
  - Market Research Analyst
  - Associate Consultant
  - Control Systems Engineer
  - Software Engineer
  - City Engineer
Class of 2021 Post Graduation Plans

- Architectural Engineering
- Biomedical Engineering
- Structural Engineering
- Mechanical Engineering
- Biomedical Engineering
- Mechanical Engineering
- Engineering Management
- Biomedical Engineering
- Architectural Engineering
- Biomedical Engineering

~23% Graduate Schools
Class of 2021 Post Graduation Plans

~12%

Professional Schools

- Medical School
- Gynecology

Being Determined

- Management
- Business School

- Law School
- IP and Patent Lawyer

Being Determined

- Renewable Energy & Policy
Sharing gratitude to the WFU Community you for all you have done to support us!

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