

VISION & OPPORTUNITIES



THE UNIVERSITY OF BRITISH COLUMBIA
School of Engineering

DR. REHAN SADIO, ASSOCIATE DEAN
SCHOOL OF ENGINEERING | APSC



SCHOOL OF ENGINEERING VISION

*“UBC Okanagan's School of Engineering is a premiere destination for **exceptional engineering education and research**, providing an intimate and dynamic environment for finding creative engineering solutions that positively **impact the community and the world**”*



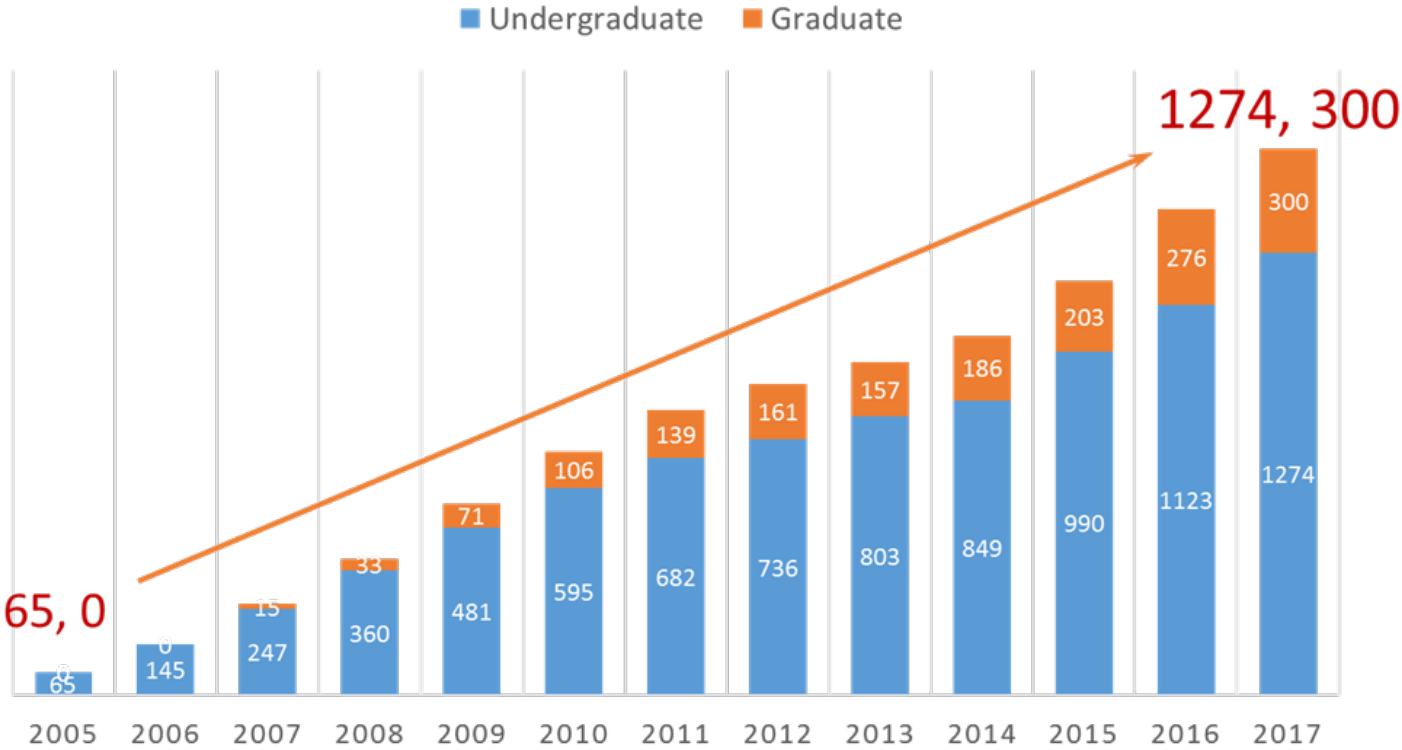
FACULTY AND STAFF POSITIONS

Faculty: Title	Totals
Professor	11
Associate Professor	13
Assistant Professor	13
Professor of Teaching	1
Senior Instructor	4
Instructor	4
12 month Lecturer	2
Adjunct Professor	8
Total Faculty	56 (8)

Staff: Title	Totals
Support Staff	11
Technicians	12
Total Staff	23



SINCE OPENING 2005, THE ACCREDITED SCHOOL OF ENGINEERING HAS WITNESSED INCREDIBLE GROWTH!



BEING A **BASC STUDENT** IN THE SCHOOL OF ENGINEERING... PROJECT-BASED LEARNING AND THE COMMON YEARS I-II

Year 1: Fundamentals of Sustainable Engineering Design (APSC 169)



Year 2: Applications of Engineering Design (APSC 258)



BEING A **BASC STUDENT** IN THE SCHOOL OF ENGINEERING... PROJECT-BASED LEARNING AND THE SPECIALIZED YEARS III-IV

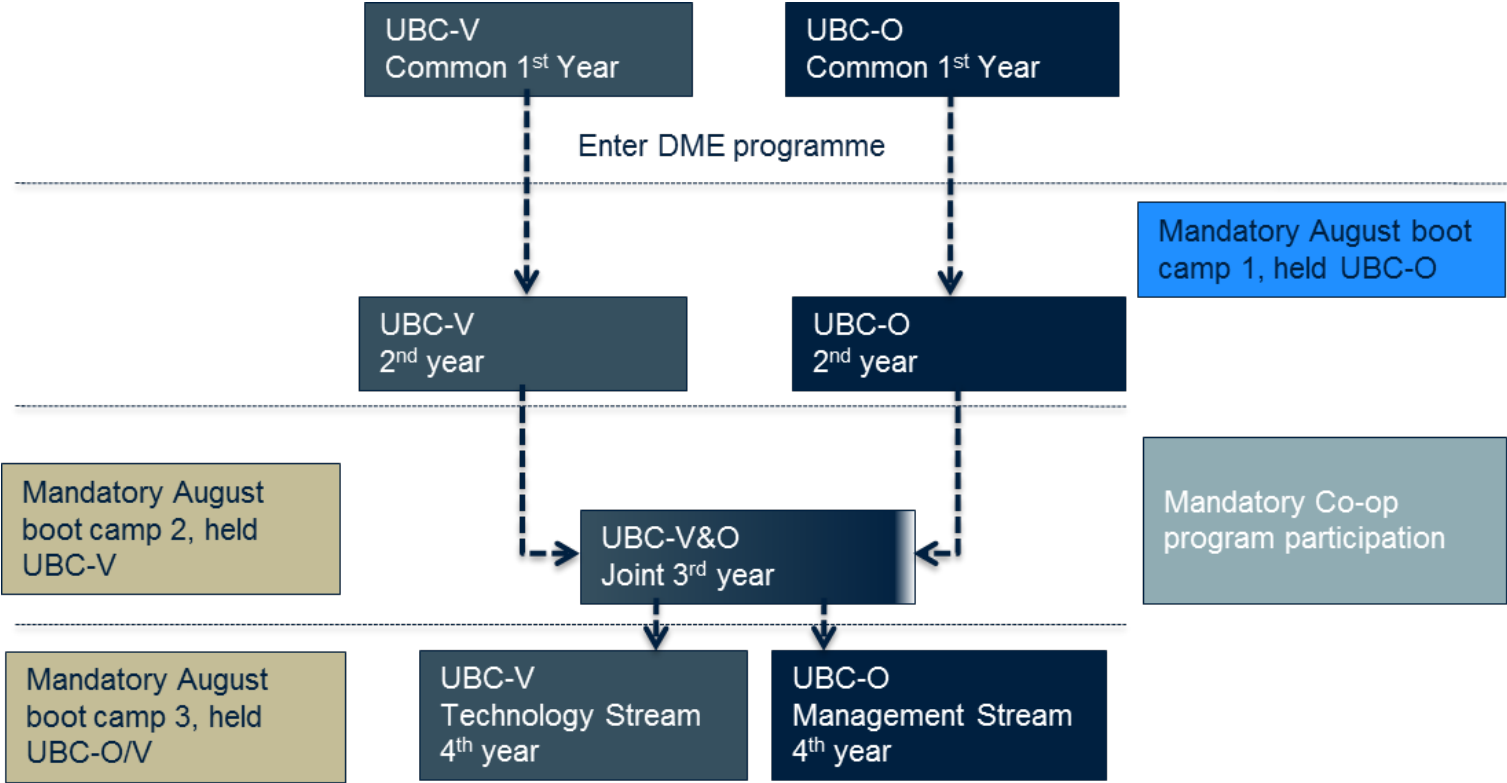
Year 3: Specialized projects in Civil, Electrical, and Mechanical Engineering programs



Year 4: Capstone design project with industry partners



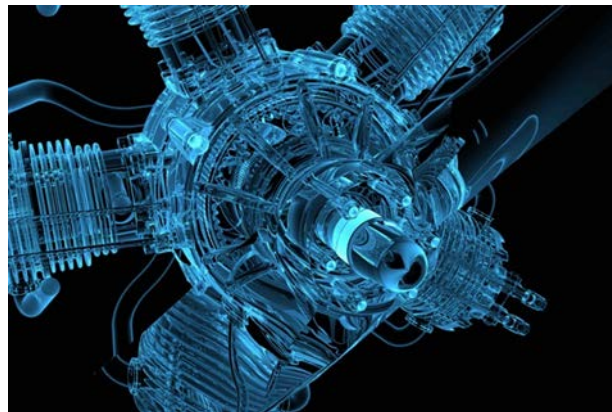
MANUFACTURING ENGINEERING PROGRAM



RESEARCH EXCELLENCE

Intensify Research and Create Areas of Excellence

- Strategic clusters: Build competitive research clusters in strategic areas
- Align with industry: Leverage expertise and infrastructure to engage industry into research
- Interface and leverage research: Cross-faculty and cross campus research collaborations
- Entrepreneurial: Support the entrepreneurial ambition of students and faculty
- **Since 2005, over \$20.5M in research and infrastructure funding**



Health Technology

- Medical devices
- Disease detection
- Biomechanics
- Biomaterials
- Health monitoring

Materials & Manufacturing

- Building materials
- Electronic materials
- Composites
- Material characterization
- Material processing

Urban Infrastructure & Green Construction

- Water
- Transportation
- Sustainable buildings
- Planning and decision making
- Waste management

Clean Technology & Environmental Systems

- Clean fuels
- Energy utilization
- Energy conversion
- Smart-grid power systems
- Alternative energy systems

Educational Leadership

- Entrepreneurship
- Professionalism
- Engineering communications
- Design-based learning

Advanced Systems

- Communications
- Big data and networks
- Sensors
- Photonics and electromagnetics
- Robotics and control



THE UNIVERSITY OF BRITISH COLUMBIA
School of Engineering





Materials and Manufacturing Research Institute

(launched 2017)

Faculty groups involved:

- **Engineering**
- **Medicine**
- **Health and Exercise Science**
- **Chemistry**
- **Physics**
- **Biology**
- **Statistics & Optimization**
- **Computer Science**
- **Dentistry**
- ...

Aerospace and Transportation
Materials and Manufacturing
(ATMM)

Building and Construction
Materials and Manufacturing
(BCMM)

Biomedical and Biological
Materials and Manufacturing
(BBMM)

Polymer and Natural
Materials and Manufacturing
(PNMM)

Electromagnetic and
Nanoscale Materials and
Manufacturing (ENMM)

