

World Class. Face to Face.



#### **Lloyd Smith**

Associate Professor
School of Mechanical
and Materials
Engineering



#### University

- Founded in 1890 as Washington State's Land Grant Institution
  - Pullman (18,000)
  - Spokane (1,000)
  - Tri-Cities (1,000)
  - Vancouver (2,000)



#### **Academic Colleges**

- Agriculture, Human & Natural Resource Sciences
- Business and Economics
- Education
- Engineering and Architecture
- Liberal Arts
- Nursing
- Pharmacy
- Sciences
- Veterinary Medicine



# Units in the College of Engineering and Architecture

- School of Architecture and Construction Management
- Biological Systems Engineering
- Chemical Engineering
- Civil and Environmental Engineering
- School of Electrical Engineering and Computer Science
- School of Mechanical and Materials Engineering



#### Academic Programs in the College of Engineering and Architecture

- Architecture
- Construction Management
- Biological Systems Engineering
- Chemical Engineering
- Civil and Environmental Engineering
- Computer Engineering
- Electrical Engineering
- Manufacturing Engineering (Vancouver)
- Materials Science and Engineering
- Mechanical Engineering



## School of Mechanical and Materials Engineering

- Faculty
  - Pullman (25)
  - Tri-Cities (2)
  - Vancouver (4)
  - Affiliate (3)
  - Emeritus (5)

- Research areas
  - Dynamics and Controls
  - Fluid mechanics
  - Manufacturing/Design
  - Robotics
  - Thermal Sciences
  - Mechanical and Physical Metallurgy
  - Ceramic Materials
  - Electronic Materials
  - Polymeric Materials
  - Solid Mechanics



## School of Mechanical and Materials Engineering

- Mechanical Engineering
  - Undergraduates (351)
  - M.S. (34-Pullman,22-TriCities)
  - Ph.D. (21-Pullman,3-TriCities)
- Material Science
  - Undergraduates (27)
  - M.S. (13-Pullman, 2-TriCities)
  - Ph.D. (18-Pullman)
- Manufacturing Engineering
  - Undergraduates
  - M.S. (5-Vancouver)



## School of Mechanical and Materials Engineering

- Laboratories and Centers
  - Center for Integrated Biotechnology
  - Center for Multiphase Environmental Research
  - Computational Mechanics and Materials Laboratory
  - Center for Materials Research
  - Institute for Shock Physics
  - Micro Scale Thermo Fluidic Laboratory
  - Virtual Assembly Technology Consortium
  - High Resolution X-Ray Computed Tomography Laboratory
  - MEMS
  - Sports Science Laboratory



#### **Reinforced Polymers**

- Manufacturing
  - Wet layup
  - Autoclave
- Visco-elastic damage evolution
- Multiaxial mechanical testing
- Environmental degradation



# **Sports Science Laboratory**

