

VIRGINIA TECH GRADUATE SCHOOL Inclusive, Individualized, Innovative Education

# The Graduate School

Graduate students at Virginia Tech are an important and valued part of the academic community. We view graduate education as a partnership between outstanding graduate students and distinguished and internationally renowned faculty. Graduate students collaborate with faculty to continue our longstanding commitment to learning, discovery, and engagement.

Vice President and Dean for Graduate Education Karen P. DePauw

## What makes us unique? THE GRADUATE LIFE CENTER

The Graduate Life Center (GLC) is the heart of a progressive, inclusive graduate community and gathers administrative, academic, social, and residential functions all under one roof. The GLC offers housing, academic, and meeting spaces; programming and social activities; and Graduate School offices in an award-winning complex not found at any other institution. The GLC provides students opportunities to meet and collaborate with faculty and peers across disciplines, develop skills for academic and professional success, and maintain a healthy work-life balance.

### TRANSFORMATIVE GRADUATE EDUCATION (TGE)

The Graduate School facilitates the Transformative Graduate Education (TGE) initiative developed by Vice President and Dean for Graduate Education Karen. P. DePauw. Through a mix of unique programs and opportunities, TGE pushes the boundaries of traditional disciplinary academic education, encouraging interdisciplinary research and collaboration across fields. All of our TGE programs, courses, workshops, and support services are rooted in the four pillars of knowledge, leadership, scholarly inquiry, and social responsibility. We aim to significantly change how graduate students prepare to become the next generation of scientists, educators, scholars, engineers, artists, and career professionals in an ever-evolving global context.

### HOLISTIC ADMISSIONS

You are more than your grades, GRE score, or where you went to school. At Virginia Tech, we approach admission from an inclusive, rather than exclusive, perspective. Using a holistic admissions process, we look at many aspects of the student, including such things as work experience, community involvement and service, leadership, personal and professional ethics, research and scholarship, and the barriers you have dealt with while pursuing your goals.

## Application and Admission

### ADMISSION REQUIREMENTS

All applicants must have a baccalaureate degree or the equivalent of a U.S. four-year degree from a regionally accredited institution. All applicants must submit the following items:

- Completed application
- Official transcripts from all institutions where a bachelor's degree was received or graduate-level work was undertaken
- Non-refundable application fee

Other materials required by departments may include the following (check department websites for details):

- Letters of recommendation
- Statement of purpose
- Résumé or curriculum vitae
- Supplemental information (example of written work, essay questions, etc.)
- An official report of test scores (GRE, GMAT, etc.)

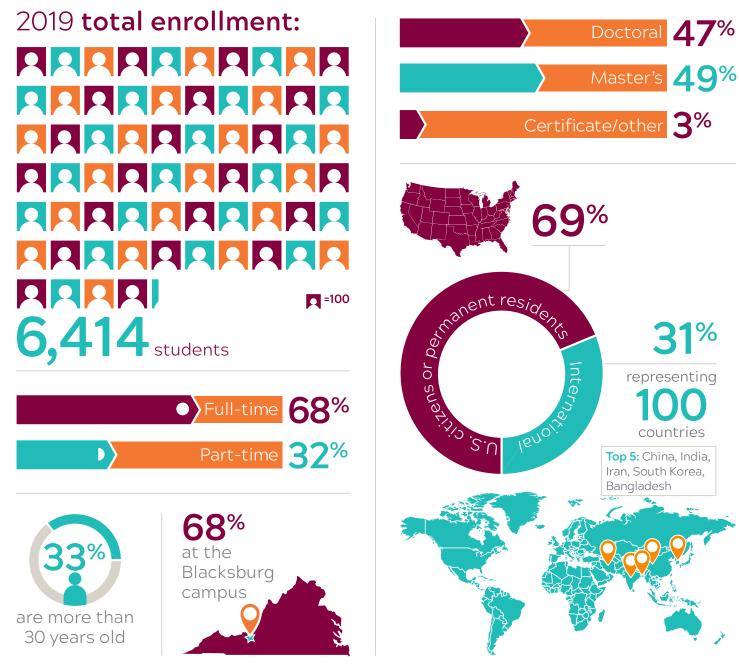
### INTERNATIONAL APPLICANTS

International applicants must demonstrate English language proficiency. Acceptable documentation includes TOEFL, IELTS, or proof that English was the language of instruction for earned degrees.

### NON-DEGREE GRADUATE PROGRAMS AND CERTIFICATES

Individuals who hold a baccalaureate degree may apply for admission to one of our non-degree programs. Visit our graduate catalog to get a listing of programs and degree options.

# **Graduate School by the numbers**



# The World is Our Campus



### VIRGINIA TECH AT A GLANCE

From our founding in 1872 to today, university traditions are firmly rooted in our motto, Ut Prosim (That I May Serve) and in our landgrant missions of instruction, research, and solving the problems of society through public service and outreach activities.

The main campus is located in Blacksburg, Virginia, with extended campus locations spread across the Commonwealth of Virginia, and programs and centers located in Asia, Africa, Europe, and the Caribbean. colleges and the Graduate School

major

research institutes

75

graduate certificate programs offered university-wide

170 master's and doctoral degree programs

244,500 alumni living in every state and more than 100 countries 3,900 faculty members, instructors, and researchers

34,000+ students (about 6,500 graduate students)

#### PROFESSIONAL DEVELOPMENT

We provide a range of events and activities to help our graduate students prepare. connect, succeed, and standout as they pursue their degrees and professional doals in highly competitive olobal markets. We partner with other university departments to offer scholarly and extracurricular activities based on the Transformative Graduate Education initiative. Recent program and seminar topics include:

- Career Fair Preparation
- Interviewing Skills
- Professionalize Your Writing
- Networking
- Academic Job Searches
- Building a Strong LinkedIn Presence

Communicating Your Research to Different Audiences



# An Inclusive, Diverse Community

The Graduate School is committed to supporting an inclusive, diverse community of students, faculty and administrators, one in which students thrive, not just survive, during their education journey.

Each month we host a series of free Connect Lunches, open to all students and designed to bring together graduate students, faculty, and staff who identify with the culture or social identity being celebrated.

For students looking to create dialogue and implement change for a more diverse and inclusive experience for the larger university community, we offer the Diversity Scholars program. Diversity Scholars specialize in and advocate for the awareness, knowledge, and skills associated with inclusion and diversity.

The Graduate School launched several programs to help students with families. These include the Little Hokie™ Hangout cooperative playgroup to provide affordable, quality child care, a parent support group, and a babysitter clearinghouse.

## Research

Graduate Students are key members of the university's research community. In addition to research programs, labs, and institutes across the university, the Graduate School supports Interdisciplinary Graduate Education Programs (IGEPs) to promote and sustain interdisciplinary graduate education and research. More than 300 graduate students currently participate in the IGEPs.

Each program addresses a major fundamental problem or complex societal issue requiring an interdisciplinary team of scholars. They focus on using innovative and integrative approaches to produce the next generation of global leaders in science, education, and other fields.

Coursework and program-specific activities are designed to develop the four pillars of the Transformative Graduate Education Experience: Knowledge, Leadership, Scholarly Inquiry and Social Responsibility.

In addition to these programs, the university has developed several other interdisciplinary programs for graduate students that span its colleges and campuses.

Interdisciplinary Graduate Education Programs supported by the Graduate School:

- Bio-Inspired Buildings
- Biological Transport (BIOTRANS)
- Computational Tissue Engineering (CTE)
- Disaster Resilience
- Genetics, Bioinformatics, and Computational Biology (GBCB)
- Human-Centered Design
- Interfaces of Global Change
- Macromolecular Science and Engineering (MACR)
- Regenerative Medicine
- Remote Sensing
- Sustainable Nanotechnology (SuN)
- Translational Obesity Research

- Translational Plant Science
- Water INTERface

#### Additional interdisciplinary programs:

- Alliance for Social, Political, Ethical, and Cultural Thought (ASPECT)
- Geospatial and Environmental Analysis
- Molecular and Cellular Biology
- Science and Technology Studies
- Translational Biology, Medicine, and Health

#### COMMUNICATING SCIENCE

Dean DePauw has noted that higher education typically does not provide opportunities for scholars to communicate their work effectively outside their fields, or to the general public. To fill that gap, she launched Communicating Science, a two-credit course offered in both spring and fall semesters. Interest in and demand for the course led to the Center for Communicating Science at Virginia Tech, which creates and supports opportunities for scientists, scholars, health professionals, and others to develop their abilities to communicate and connect.

#### IPHD

In addition to the interdisciplinary programs, the Graduate School manages the individualized interdisciplinary Ph.D. (IPhD) program, in which students develop one-of-a-kind doctoral research that spans more than one field.

## Global Perspectives program

The Global Perspectives program offers students the opportunity to explore differences in academic practices and higher education issues through collaborations with students, faculty and administrators at institutes in Europe and Equador. Students work on individual and group projects. More than 150 students have participated in the program since its inception in 2005.





## Academic leaders of tomorrow

Many academic and business leaders and the public have challenged colleges and universities to embrace change to ensure the viability of the higher education enterprise.

Advocates for change argue that it is time to create new models and new methods of training for the future professoriate, who will become the faculty and academic leaders of tomorrow. Dean DePauw is at the forefront of this movement and the Graduate School has taken up this challenge. One of the key elements of the **Transformative Graduate Education initiative** is a focus on Preparing the Future Professoriate. From the extensive and innovative Graduate Teaching Assistants (GTA) training workshop and seminars, to mentoring workshops and support, to our **Academy for GTA Excellence**, we focus on helping our students succeed and stand out among their peers across the globe.



# Future professoriate certificate

This graduate certificate aims to prepare our future faculty and academic leaders through exposure to concepts that break the mold of existing practices in higher education. Many leaders in the academic and business communities have challenged colleges and universities to embrace change to ensure the viability of the higher education enterprise. Rather than settle for the status quo and witness a probable decline in sustainability, most argue that it is time to create new models and new methods of training for the future professoriate, who will become the faculty and academic leaders of tomorrow.

### **Academic Programs** THE GRADUATE SCHOOL

#### Doctoral Education Master's Certificate Accelerated

- B Blacksburg
- H Hampton Roads
- R Roanoke
- **Ri** Richmond

- S Southwest Virginia
- V Virtual
- W Greater Washington D.C. area

Aerospace Engineering B,V			Business, Hospitality and Tourism Management B,W
Africana Studies B			Business, Information Security and Analytics
Agriculture and Applied Economics B			Business, Information Technology B
Agriculture, Leadership, and Community Education B,V			Business, Information Technology Management
Agriculture and Life Sciences V			Business, International Hospitality and Tourism Strategy
Air Transportation Systems B			Business, Management B
Alliance for Social, Political, Ethical, and Cultural Thought <b>B</b>			Business, Marketing B
Animal and Poultry Sciences B			Chemical Engineering B
Architecture B,W	Π		Chemistry B
Architecture and Design Research (Options: Architecture, Design Research, Landscape Architecture, Urban Design) <b>B</b> , <b>W</b>			Civil Engineering (Options: Civil Infrastructure, Construction Engineering and Management, Environmental and Water Resources, Geospatial Engineering, Geotechnical, Structural
Arts Leadership B	_		Engineering and Materials, Transportation Infrastructure and
Bio-based Materials B			Systems Engineering) B,W
Bio-Inspired Buildings* B			Civil Infrastructure Systems B
Biochemistry B			Collaborative Community Leadership B
Biological Sciences B			Communication B
Biological Systems Engineering B			Computational Engineering Science and Mechanics B
Biological Transport* B			Computational Tissue Engineering* B
Biomedical and Veterinary Sciences B			Computer Engineering B,H,R,Ri,S,V,W
Biomedical Engineering B,R			Computer Science and Applications B,W
Biomedical Technology Development and Management W			Creative Technologies B
Building/Construction Science and Management B			Creative Writing B
Business, Accounting and Information Systems B			Critical Design Thinking B
Business Administration (Evening, Executive, Professional) B,Ri,R,W			Crop and Soil Environmental Sciences B
Business Analytics and Data Mining V		0	Cybersecurity Engineering
Business, Entrepreneurship in Hospitality and Tourism	$\left  \right $		Dairy Science B
Management W			Data Analysis and Applied Statistics B
Business, Executive Business Research B			Data Analytics V
Business, Finance B	Í	T	Disaster Resilience* B
Business, Health Information Technology V			Economic Development B,V
Business, Hospitality and Tourism Analytics and Revenue			Economic Risk and Global Inequality W
Management V			Economics B

\*Interdisiplinary Graduate Education Program

### Academic Programs (CONTINUED)

#### Doctoral Education Master's Certificate Accelerated

- B Blacksburg
- H Hampton Roads
  - ds V
- R Roanoke Ri Richmond
- S Southwest VirginiaVirtual
- W Greater Washington D.C. area

Education, Career and Technical B,H,R,S,W	Foreign Languages, Cultures, and Literatures (Options:
Education, Career and Technical (Teaching licensure) B	French/Franophone Studies, Multi-language Studies, Hispanic Studies) B,∨
Education, Cognition Education B	Forest Products B
Education, Counselor Education B,R,W	Forestry B
Education, Curriculum and Instruction B	Foundations of Political Analysis B
Education, Curriculum and Instruction (Options: Elementary	Future Professoriate B
Education, English, English as a Second Language, Foundations, History and Social Science, Mathematics,	Genetics, Bioinformatics, and Computational Biology* B
Music, Science, Special Education, Technology) B	Geography B
Education, Curriculum and Instruction (Options:	Geosciences B
Educational Psychology, Instructional Design and Technology, Integrative STEM Education) <b>B</b>	Geospatial and Environmental Analysis B
Education, Curriculum and Instruction, Instructional	Geospatial Information Technology B
Technology Master of Arts V	Gerontology B
Education, Curriculum and Instruction (Options: Reading	Global Planning and International Development Studies B,W
Specialist, Math Specialist) B,R,S	Global Sustainability B
Education, Educational Leadership and Policy Studies	Government and International Affairs <b>B</b> , <b>W</b>
(Educational Leadership Option) B,H,R,Ri,S,W	Higher Education B
Education, Educational Leadership and Policy Studies (Higher Education option) B	Higher Education Administration B
Education, Educational Research and Evaluation B	History B
	Homeland Security Policy B,W
Education, Learning Sciences B	Horticulture B
Educational Research B	Human-Centered Design* B
Electrical Engineering B,H,R,Ri,S,V,W	Human Development (Options: Adult Development and Aging,
Emerging Devices Technologies B	Child and Adolescent Development, Family Studies) B
Engineering Education B,H,R,Ri,S,W	Human Development (Options: Adult Learning, Human
Engineering Mechanics B	Resource Development) W
English B	Human Factors of Transportation Safety B
Entomology B,V	Human Nutrition, Foods and Exercise (Options: Basic, Clinical, Behavioral) B
Environmental Design and Planning B	Human Nutrition (Option: Muscle Physiology and
Environmental Engineering B,W	Biochemistry) B
Environmental Politics and Policy B,V	Human Sexuality Studies B
Fisheries and Wildlife Conservation B	Human System Integration B,H,R,Ri,S,W
Food Science and Technology B,V Interdisiplinary Graduate Education Program	Inclusion and Diversity B,V,W

Individual Interdisciplinary B	Psychology B	
Industrial and Systems Engineering (Options: General	Public Administration B,R,W	
Industrial, Human Factors, Management Systems,	Public Administration and Public Affairs <b>B</b> , <b>W</b>	
Manufacturing, and Operations Research) B,H,R,Ri,S,W	Public Health B	
Information Policy and Society B,W	Public History B	
Information Security and Analytics V	Public and Nonprofit Financial Management B	
Information Technology V	Quantitative Resource Assessment B	
Integrated STEM B	Race and Social Policy <b>B</b> , <b>W</b>	
Interdisciplinary Water and Health Science B	Regenerative Medicine <sup>*</sup> B	
Interfaces of Global Change <sup>*</sup> B	Religious Studies B	
International Research Abroad B,W	Remote Sensing <sup>*</sup> B	
Landscape Architecture B	Research in Translational Medicine B	
Local Government Management B,W	Rhetoric and Writing B	
Macromolecular Science and Engineering B	Science and Technology Studies B,W	
Material Culture and Public Humanities B	Security Studies B,V	
Materials Science and Engineering <b>B</b>	Sociology B	
Mathematics B		
Mechanical Engineering B,H,W	Software Development V	
Metropolitan Studies B,W	Special Education Administration and Supervision B	
Middle East Politics and Society W	Statistics B	
Mining Engineering B	Sustainable Nanotechnology* B	
Molecular and Cellular Biology <sup>*</sup> B	Technology Management	
Multidisciplinary Research in International Development B	Theatre Arts B	
Natural Resources V,W	Traffic Control and Operations B	
Naval Engineering B,V	Translational Biology, Medicine, and Health R	
Neuroscience B	Translational Obesity Research* B	
Nonprofit and Nongovernmental Organization Management	Translational Plant Science* B	
B,W	Transportation Systems Engineering <b>B</b>	
Nuclear Engineering B,W	Treatment Process Engineering W	
Nuclear Science, Technology, and Policy W	Urban and Regional Planning B,H,R,Ri,V,W	
Ocean Engineering B,V	Urban Computing B,W	
Philosophy B	Urban Hydrology and Stormwater Management B	
Physics B	Water INTERface* B	
Planning, Governance, and Globalization <b>B</b> , <b>W</b>	Water Quality Management B	
Plant Pathology, Physiology, and Weed Science B	Watershed Management B	
Political Science <b>B</b> , <b>V</b>		
Politics and Policy Studies of Science and Technology <b>B</b> , <b>W</b>	Women's and Gender Studies B	
Problem Solving for Leading Change B		





## **Contact the Graduate School**

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www.graduateschool.vt.edu 540-231-6691

#### Roanoke www.vtrc.vt.edu

540-767-6100

#### Richmond

www.richmond.vt.edu 804-662-7288

#### Greater Washington D.C. Area www.ncr.vt.edu 703-538-8327

#### WWW.GRADUATESCHOOL.VT.EDU | GRADS@VT.EDU



#### Hampton Roads

www.hrc.vt.edu 757-363-3930

#### Southwest Virginia

www.swcenter.edu 276-619-4311

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