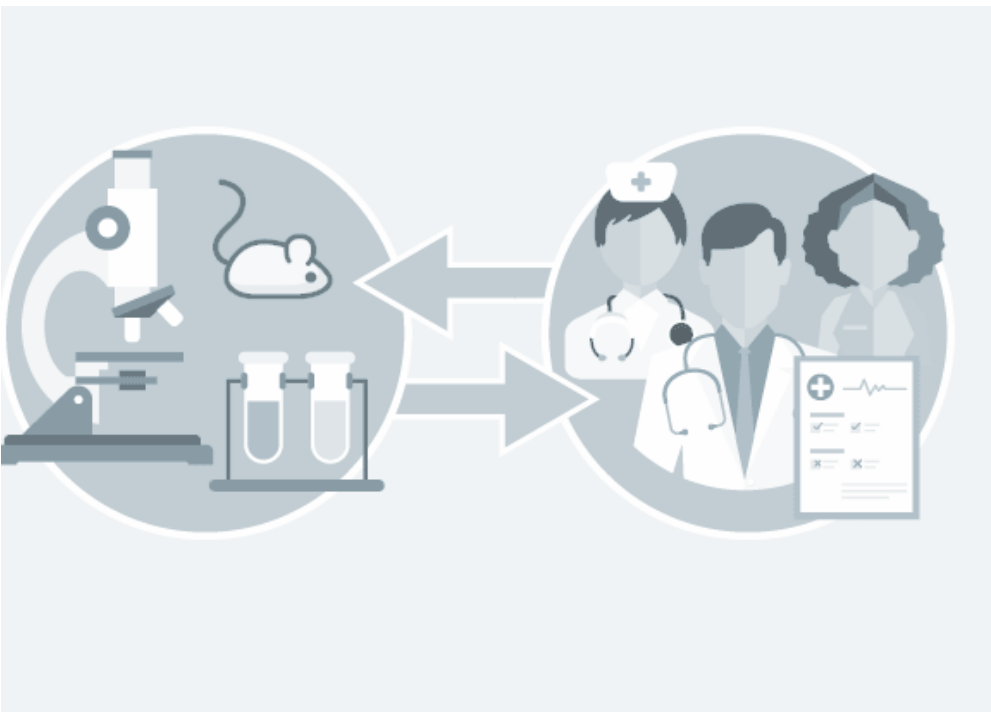


Integrated Health Sciences & Research (IHSR) Overview



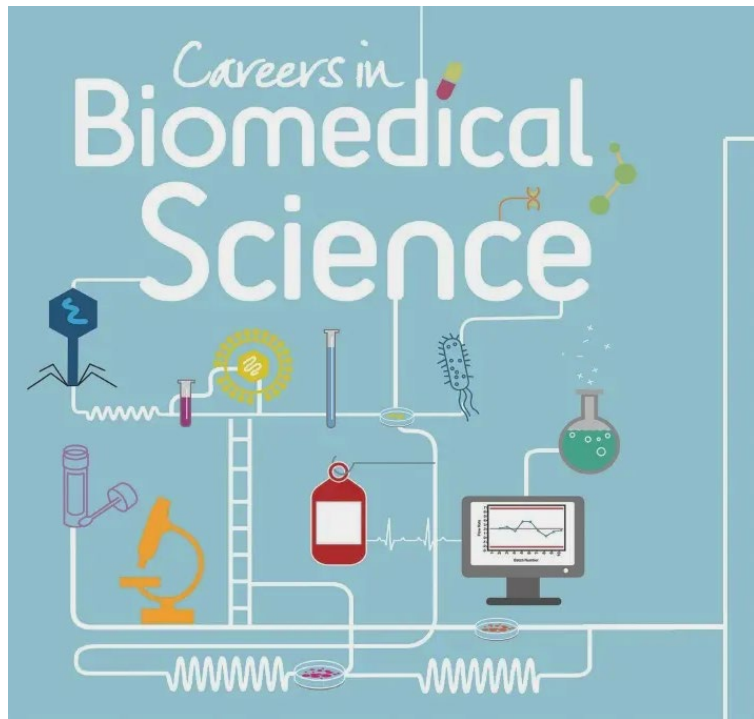


FRALIN BIOMEDICAL
RESEARCH INSTITUTE AT VTC
VIRGINIA TECH.



What is the Integrated Health Science & Research (IHSR) Program?

- A multi-year undergraduate program offered on the VT Health Science & Technology Campus in Roanoke.
- Main goals:
 - Attract VT undergraduates to engage in experiential learning & research opportunities at world-class facilities at FBRI.
 - Offer coursework & clinical exposure that integrates biomedical science and clinical perspectives.
 - Deliver tailored professional development and career mentoring to boost competitiveness for graduate program and employment applications.



Who are ideal students for IHSR?

- Freshman and sophomore VT undergraduates interested in biomedical research and a career in health professions, clinical or translational research.
- Current IHSR students major in Biological Sciences, Nanoscience, Nanomedicine, and Neuroscience.
- We welcome students from all majors.



Timeline

Blacksburg

Roanoke

Steadily increase time in Roanoke over 6-semester-long program, spending ≥ 10 h/week lab and adding clinical shadowing, Roanoke-based courses, seminars and other Health Science & Technology campus activities.

- 0**
- **Application deadline: February 5th.** Acceptance notifications by March 15th
 - Welcome event in April
 - Early lab match for interested students: start connecting with potential research mentors.

- 1**
- **Fall semester:** IHSR orientation and Roanoke campus tour.
 - AIS 2404 *Intro to Biomedical Research in Blacksburg* (lab prep, ethics, expectations)
 - Seek research mentors (early lab match students start Roanoke lab work)

- 2**
- **Spring semester,** *Research in Roanoke labs* (≥ 10 h/week)
 - AIS 4414 *Presenting Scientific Research*
 - AIS 2984 *Career Development in IHSR* (virtual)

- 3**
- **Fall semester,** *Lab work in Roanoke* (≥ 10 h/week)
 - AIS 4404 *Discussing Scientific Literature*
 - Elective courses in-person in Roanoke
 - Optional: TBMH 4964 *Clinical Shadowing Experience*

- 4**
- **Spring semester,** *Lab work in Roanoke* (≥ 10 h/week)
 - AIS 4414 *Presenting Scientific Research*
 - Elective courses and option to shadow in Roanoke

- 5**
- **Fall semester,** *Lab work in Roanoke* (≥ 15 h/week)
 - AIS 4404 *Discussing Scientific Literature*
 - Elective courses and option to shadow in Roanoke

- 6**
- **Spring semester,** *Lab work in Roanoke* (≥ 15 h/week)
 - Capstone presentation of research project
 - Elective courses and option to shadow in Roanoke



Integrated Health Science & Research (IHSR) Program Courses:



Introductory Coursework

AIS 2404 Introduction to Biomedical Research (learn about research areas at FBRI; meet faculty to identify research mentor)

AIS 4044 IHSR Scientific Literature (basics of literature searches, reading and evaluating scientific papers, and linking basic science papers to clinical issues)

AIS 4414 IHSR Presenting Scientific Research (basics of written, oral and other presentation formats; students begin giving presentations on their lab work)



Experiential Learning

AIS 2994/4994 Research in mentor lab (3 credits/semester in initial semesters with increasing number of credits in later semesters)

TBMH 4964 Field Work/Practicum (Clinical Shadowing)



Clinically-focused classwork and professional development

AIS 2984, IHSR Career Development (*New virtual course offered in Spring 2024*)

AIS 4984, Clinical and Scientific Perspectives on Addiction (*New in Spring 2024*)

AIS 4984 Radiation Biology (*New in Spring 2024*)

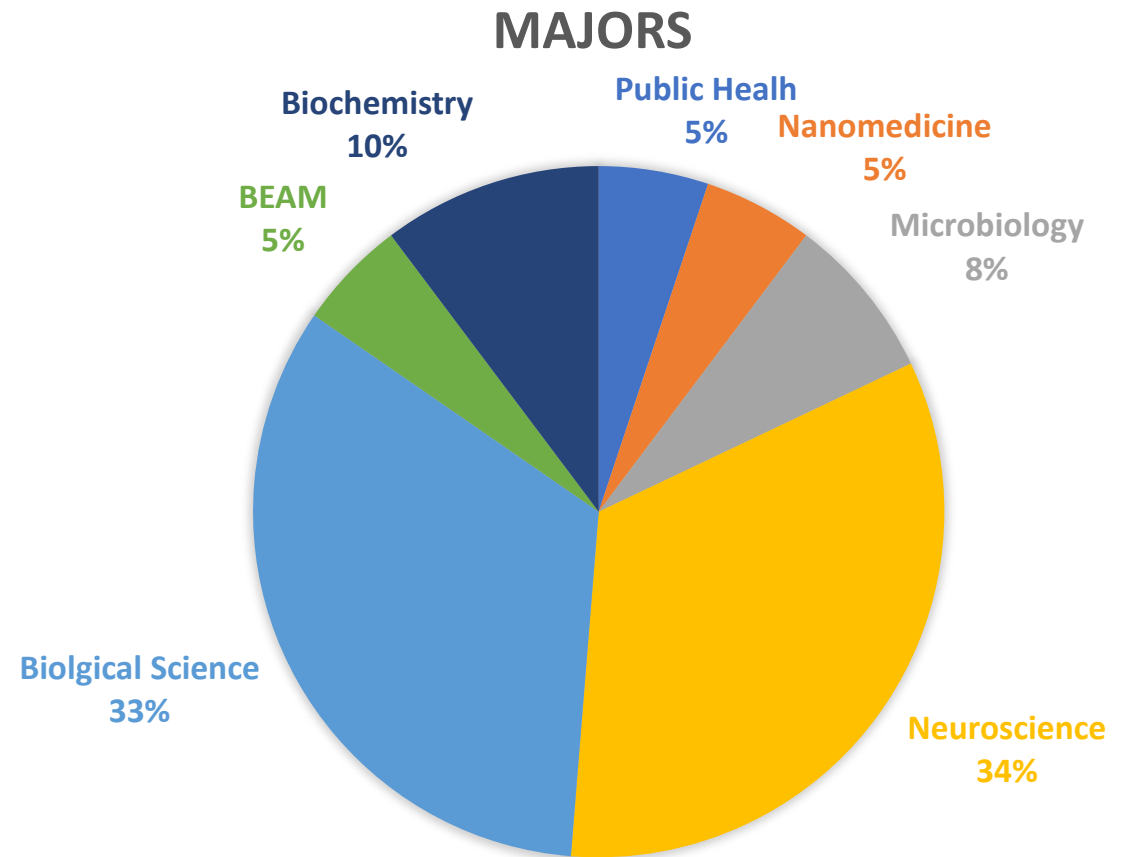
AIS 4984 Pathophysiology (*New in Spring 2024*)

- Required of all IHSR students
- Electives will be offered in-person in Roanoke; we will work with departments to request permission to incorporate classes into graduation checksheets as 'restricted electives'

Current IHSR students



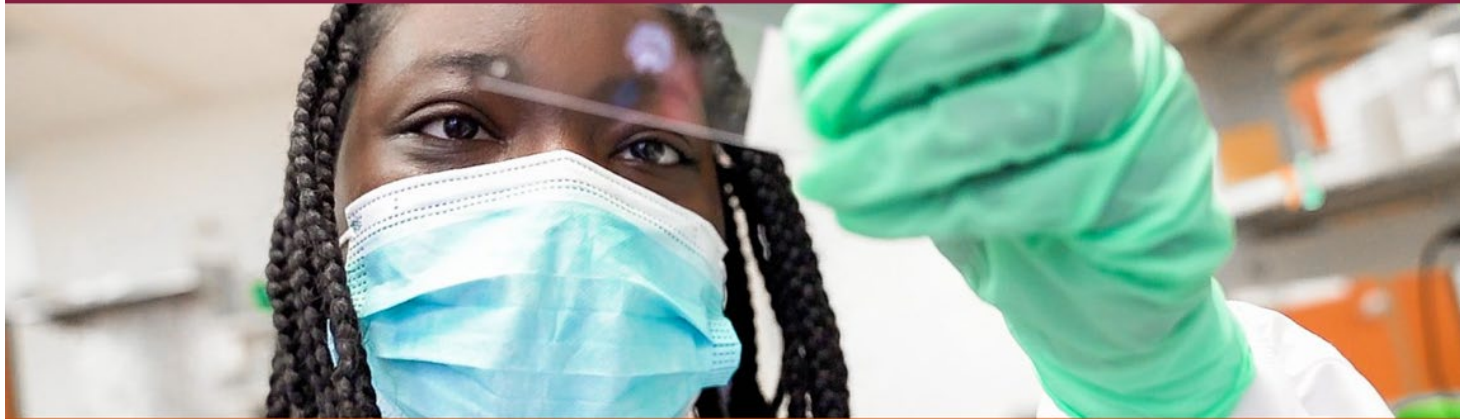
	Current # IHSR students
Sophomore	14
Junior	17
Senior	6
	37





Recruitment Plans for 2024-25 Cohort

- Plan to recruit 20 students for the next cohort.
- Application site opens Dec 1st (deadline February 5, 2024)
- Will offer info sessions in January.



Integrated Health Sciences and Research Program

An immersive undergraduate research experience with world-class faculty from the Fralin Biomedical Research Institute at VTC and the College of Science at Virginia Tech's Health Sciences and Technology Campus in Roanoke. An academic program of the College of Science.

<https://hst.vt.edu/campus/IHSR.html>

Questions?



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