Integrated Health Sciences & Research Program (IHSR) Overview

https://fbri.vtc.vt.edu/education/undergraduate-research/IHSR.html
Integrated Health Science & Research (IHSR) Program Goals:

- Increase experiential learning & research opportunities for VT undergraduates on the Roanoke Health Science & Technology campus.

- Offer didactic coursework in Roanoke that integrates biomedical science, clinical perspectives and experiences.

- Create outstanding professional development, tailored mentoring, career/post-grad preparation.

- Increase competitiveness for VT students’ graduate program applications.
Integrated Health Science & Research (IHSR) Program

Target Audiences:

- VT undergraduates interested in careers in biomedical science & health professions.

- Pilot cohort will include VT College of Science preferentially students majoring in: Biological Sciences, Nanoscience/Nanomedicine, and Neuroscience, including students already participating in labs at FBRI.

- Future goal to expand the program to attract other majors in College of Science and beyond.
Integrated Health Science & Research (IHSR) Program Structure:

- 3-year program
- Semester 1: ‘On-Ramp’ in Blacksburg:
  - Intro to Biomedical Research seminar (lab preparatory course, lab safety, ethics, expectations)
  - Lab Bootcamp (technique training)
  - Students matched to Roanoke-based faculty/labs

- Semester 2 to 4: Partially in Roanoke campus
  - Minimum 10 hours of research per week (3 credits)
  - Seminar series where students present/discuss their research

- Semesters 5 and 6: Full time in Roanoke campus:
  - Minimum 20 hours of research per week (6 credits)
  - Didactic classes offered in Roanoke focusing on biomedical / health science & translational medicine.
  - Professional development and tailored mentoring to guide graduate program application prep
  - Shadowing and other clinical experiences
# Integrated Health Science & Research (IHSR) Curriculum Overview

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<tr>
<th>Sophomore Fall</th>
<th>Sophomore Spring</th>
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<tbody>
<tr>
<td>1 cr IHSR 2095 Intro to Biomedical Research (Seminar)</td>
<td>1 cr IHSR 2096 Seminar 3 cr XXXX 2994 Research Credits</td>
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<th>Junior Fall</th>
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<tr>
<td>1 cr IHSR 3095 Journal Club 3 cr XXXX 4994 Research Credits</td>
<td>1 cr IHSR 3096 Seminar 3 cr XXXX 4994 Research Credits</td>
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<th>Senior Fall</th>
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<tr>
<td>1 cr IHSR 4004 Exploring Biomedical Careers 1 cr IHSR 4095 Journal Club 6 cr XXXX 4994 Research Credits 0-3 cr TBMH 4964 Shadowing 3-6 cr Coursework</td>
<td>1 cr IHSR 4096 Seminar 6 cr XXXX 4994 Research Credits 0-3 cr TBMH 4964 Shadowing 3-6 cr Coursework</td>
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Where Do Courses Fit Into My Major?

- Biological Sciences (with or without biomedical option)
  - Intent is for courses to count as Biological/Biomedical Electives
  - Research credits would count as BIOL 4994 (3-4 credits depending on checksheet)

- Neuroscience
  - Intent is for courses to count as Restricted Electives
  - Looking into possibility of NEUR 4044 Senior Seminar equivalent being offered in Roanoke
  - Research credits would count as NEUR 4994 (3 credits)

- Nanoscience/Nanomedicine
  - Intent is for courses to count as Restricted Electives
  - Research credits would count as NANO 4994 (8 credits)