

## Full Semester



**BIT 410/510**  
**Manipulation of Recombinant DNA**  
**Lecture:** 12:50 PM - 2:40 PM **Lab:** 12:50 PM - 5:50 PM  
 Section: **001/201** Section: **002/202**  
**M/W** **Tu/Th**  
 Haggerty Goller  
  
 Section: **003/203**  
**W/F**  
 Huggins

Introduction to molecular biology and protein chemistry. Theory behind laboratory techniques and overview of molecular cloning strategies. This course is a prerequisite for advanced BIT laboratory modules.



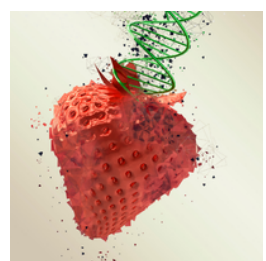
**BIT 295**  
**Biotechnology & Sustainability**  
 Section: **001/201**  
**Tu/Th:** 10:15 - 11:30 AM  
 Brown & Goller



**BIT 211**  
**Phage Genomics**  
 Section: **101**  
**M/W:** 8:30 - 10:20 AM  
 Mathews



**BIT 402/502**  
**Networking and Professional Development**  
 Section: **601**  
**Virtual: W/** 10:15-11:30 AM  
 Haggerty



**BIT 501**  
**Ethical Issues in Biotechnology**  
 Section: **001**  
**W:** 10:40 AM - 12:30 PM  
 Brown

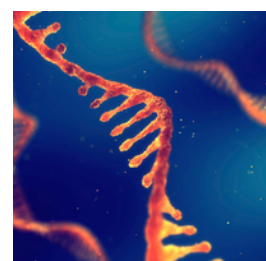


**BIT 815**  
**Rigor and Reproducibility in Research (RRR)**  
 Section: **002**  
**F:** 10:40 AM - 12:30 PM  
 Haugh

## Session 1 (8 weeks)



**BIT 464/564**  
**Protein Purification**  
 Section: **001/201**  
**M:** 12:50 PM - 5:50 PM **W:** 3:00 PM - 4:50 PM  
 Chen and Kelly



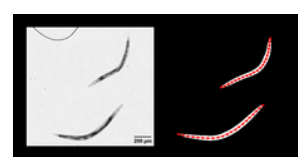
**BIT 471/571**  
**RNAi**  
 Section: **001/201**  
**T:** 3:00 PM - 4:50 PM **Th:** 12:50 PM - 5:50 PM  
 Srougi and Huggins



**BIT 495/595**  
**Microbial Prospecting**  
 Section: **002/202**  
**T:** 12:50 PM - 5:50 PM **Th:** 3:00 PM - 4:50 PM  
 Crook



**BIT 495/595**  
**DNA Forensics**  
 Section: **003/203**  
**M:** 12:50 PM - 2:40 PM **W:** 12:50 PM - 5:50 PM  
 Meiklejohn



**BIT 495/595**  
**Quantitative Microscopy and Image Analysis**  
 Section: **004/204**  
**T:** 12:50 PM - 5:50 PM **Th:** 12:50 PM - 2:40 PM  
 Haggerty

### Instructor Emails:

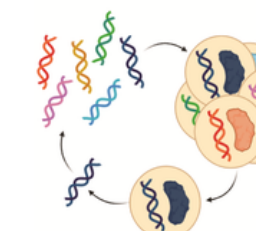
Aaron Bell - [ajbell6@ncsu.edu](mailto:ajbell6@ncsu.edu)  
 Phillip Brown - [pebrown4@ncsu.edu](mailto:pebrown4@ncsu.edu)  
 Nathan Crook - [nccrook@ncsu.edu](mailto:nccrook@ncsu.edu)  
 Stefanie Chen - [slchen2@ncsu.edu](mailto:slchen2@ncsu.edu)  
 Raymond Haggerty - [rahagger@ncsu.edu](mailto:rahagger@ncsu.edu)  
 Jason Haught - [jmhaugh@ncsu.edu](mailto:jmhaugh@ncsu.edu)  
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 Kelly Meiklejohn - [kameikle@ncsu.edu](mailto:kameikle@ncsu.edu)  
 Kasie Raymann - [ktrayman@ncsu.edu](mailto:ktrayman@ncsu.edu)  
 Melissa Srougi - [mcsrougi@ncsu.edu](mailto:mcsrougi@ncsu.edu)



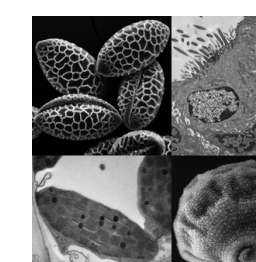
## Session 2 (8 weeks)



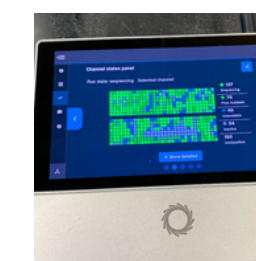
**BIT 455/555**  
**Cancer Drug Discovery and Development**  
 Section: **001/201**  
**T:** 12:50 PM - 5:50 PM **Th:** 12:50 PM - 2:40 PM  
 Srougi



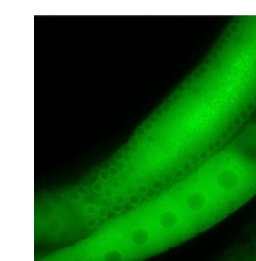
**BIT 495/595**  
**Directed Evolution**  
 Section: **005/205**  
**M:** 3:00 PM - 4:50 PM **W:** 12:50 PM - 5:50 PM  
 Chen



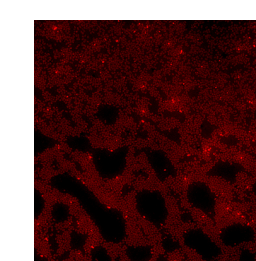
**BIT 495/595**  
**Introduction to Biological Electron Microscopy Techniques**  
 Section: **006/206**  
**Th:** 3:00 PM - 4:50 PM **Tu:** 12:50 PM - 5:50 PM  
 Bell



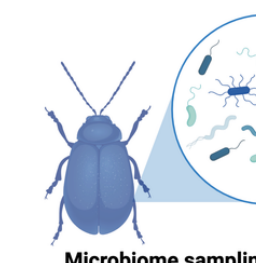
**BIT 495/595**  
**Portable Genome Sequencing**  
 Section: **007/207**  
**M:** 12:50 PM - 5:50 PM **F:** 12:50 PM - 2:40 PM  
 Goller



**BIT 495/595**  
**Found in Translation: Mechanisms of Post-Transcriptional Regulation**  
 Section: **008/208**  
**T:** 3:00 PM - 4:50 PM **Th:** 12:50 PM - 5:50 PM  
 Huggins



**BIT 495/595**  
**Genome Engineering: CRISPR Technologies**  
 Section: **009/209**  
**Tu:** 12:50 PM - 5:50 PM **Th:** 3:00 PM - 4:50 PM  
 Brown



**BIT 495/595**  
**Microbiomes: From Sampling to Community Analysis**  
 Section: **010/210**  
**M:** 12:50 PM - 5:50 PM **W:** 3:00 PM - 4:50 PM  
 Raymann

### For Questions:

**Contact:** Dr. Carlos Goller  
**Email:** [cggoller@ncsu.edu](mailto:cggoller@ncsu.edu)  
**Website:**  
<http://biotech.ncsu.edu>

### Socials:

**X (Twitter):** @NCSUBIT  
**Instagram:** @NCSUBIT  
**LinkedIn:** NCSU BIT

- Prepare for **academic and industry careers**
- **Professional development** opportunities
- Gain **hands-on lab experience**
- **Research** and **non-research tracks**



**Prerequisites**  
BIO 183 Cell and Molecular Biology and  
CH 223 Organic Chemistry

**BIT 410 - 4 credits**  
Core Technologies in Molecular and Cellular Biotechnology

**Ethics - 1-3 credits**  
BIT 501 or other approved courses

**BIT 4XX - 4 credits**  
X= any course number  
Two BIT special topic laboratory modules  
2 credits, 8 weeks each

**Non-Research Track**  
**BIT 4XX - 2 credits**  
X= any course number  
and **BIT 402 - 1 credit**  
Professional Development

**Research Track**  
**Research - 3 credits**  
Biotech-related research or internship: ALS 499, CHE 497, or 492/493 level course

