Preparing to Major in the Biological Sciences

Class of 2024

University of Rochester Orientation
June 24th, 2020

Undergraduate Program In Biology and Medicine

UPBM

All Biology majors require the same intro courses: plan to take Biology and Chemistry.
Majors

Bachelor of Arts (BA)
- Biology

Bachelor of Science (BS)
- Biology: General Track
- Biochemistry
- Cell & Developmental Biology
- Computational Biology
- Ecology & Evolutionary Biology
- Microbiology
- Molecular Genetics
- Neuroscience

Minors Certificates Clusters

Minors
- Biology
- Computational Biology

Certificate
- Biotechnology

Clusters
- Biological Principles
- Understanding the Biological World
Opportunities

- Biology in the Galapagos Spring Study Abroad
- Summer Research in the Solomon Islands
- iGEMS (The International Genetically Engineered Machine Competition)
- SUBS (Society for Undergraduate Biology Students)
- Teaching Assistants (TA)

Fall Introductory Courses

Courses for Majors
- BIO 110L Principles of Biology I
- BIO 112L Perspectives in Biology I

Courses for Non-Bio Majors (Clusters)
- BIO 101 Genes Germs and Genomics
- BIO 104K Ecosystem Conservation and Human Society
BIOL 110L: Principles of Biology I
Dr. Michael Clark/ Dr. Alexis Stein

- **ALL** Biological Science Majors
- Fulfills Pre-Med Prerequisites
- Labs and Workshops
- CHM 131 Pre or Co-requisite
- Fall and Spring
- BIO Majors Take in Fall

BIOL 112L: Perspectives in Biology I
Dr. Xin Bi / Dr. Alexis Stein

- **All** Biological Science Majors
- Fulfills Pre-Med Prerequisites
- Labs and Workshops
- CHM 131 Pre or Co-requisite
- AP Exam $\geq 5$  IB Exam $\geq 6$
- More In-Depth Than BIO 110L
- Fall
- 1st Year Students Only
AP / IB Transfer Credits

- Four (4) General College Credits
  - AP Exam at least a 4
  - IB Exam at least a 6
- Not Applicable to Biology Majors
- BIO 112 Eligibility

BIOL 101: Genes, Germs & Genomics
Dr. Cheeptip Benyajati

- Non-Science Majors
- Not for Pre-Med Use
- No Labs or Workshops
- No Prerequisites
- Cluster Course
- Fall

BIOL 104K: Ecosystems Conservation & Human Society
Dr. Robert Minckley
### Typical 2 Year Schedule

**First Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>1. BIO 110L or 112L</td>
<td>1. BIO 111L or 113L</td>
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<tr>
<td>2. CHM 131 or 171/173</td>
<td>2. CHM 132 or 172/210</td>
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<tr>
<td>3. Elective or WRT 105</td>
<td>3. Elective or WRT 105</td>
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<td>4. Elective</td>
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**Second Year**

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<th>Fall</th>
<th>Spring</th>
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<tr>
<td>1. BIO 190 or 198</td>
<td>1. *BIO 250L</td>
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<tr>
<td>2. CHM 203/207</td>
<td>2. *CHM 204/208</td>
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<tr>
<td>3. Elective</td>
<td>3. *BIO 214</td>
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<td>4. Elective</td>
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<td>Declare Major</td>
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### Major Declaration

- **Spring Semester Sophomore Year**
  1. Contact UPBM Office
  2. Meet with Advisor
  3. File Declaration Form with College
UPBM Track Coordinators

Dr. Elaine Sia, Chair
UPBM Co Director
Molecular Genetics

Dr. Cheeptip Benyajati
UPBM Co Director

Dr. Danielle Presgraves
Assistant Director of
Student Affairs
BA and Minor in Biology

Dr. Jim Fry
BS Biology
General Track

Dr. Elizabeth Grayhack
BS Biochemistry

Dr. Amanda Larracuente
BS & Minor in
Computational Biology

Dr. David Lambert
BS Cell and
Developmental Biology

Dr. Albert Uy
BS Ecology &
Evolutionary Biology

Dr. Jacques Robert
BS Microbiology
Biotechnology Certificate

Dr. Renee Miller
BS Neuroscience

Peer Advisors
Trained undergraduates share insights on:

- Student life
- Picking courses for next semester
- Faculty connections
- Landing research opportunities
- Studying Abroad
- Preparing for Health Professions / Graduate School

Meet Our Peer Advisors:
http://www.rochester.edu/college/ccas/peer-advisors/#bio
Getting Started in Research

- Networking
- Independent Research
  - When? Where?
- Supporting Professional and Research Competencies (SPARC)
- Opportunities to Present
- deKiewiet Fellowship
- Degree with Honors in Research
- UR Undergraduate Research Office

Preparing for Health Professions
Going Pre-Med

- An interest, not a major
- Simply a matter of taking courses in biology, chemistry, statistics, calculus…
- See list of pre-requisite courses for medical, dental, and vet programs:
  https://www.rochester.edu/college/health/academics/pre-req.html
- The Greene Center for Career Education and Connections
Contact Info

- UPBM Office Hutchison Hall, Room 487 & 488
  http://BioDeptUgOffice@ur.rochester.edu
  (585) 275-3850
- UPBM Website:
  http://www.sas.rochester.edu/bio/undergraduate/index.html
- Department of Biology Website:
  https://www.sas.rochester.edu/bio/

Biology Department Website
Undergraduate Program in Biology and Medicine Website

Administrative

Dr. Elaine Sia, PhD : Co-Director
Dr. Cheeptip Benyajati, PhD: Co-Director
Marianne Arcoraci: Program Manager
Allyson DeBoard: Course Coordinator
Marcella Sherlock: Program Office Secretary
Questions?