Biology Graduation Checklist

Suggested Timeline for Course VII Majors

- ☐ Sophomore year: 7.02, 7.03, 7.05 and possibly 7.06. 7.03 and 7.012 can be taken concurrently. 5.12 is a pre-requisite for 7.05.
- ☐ Junior year: 7.06, 1 or more restricted electives, project lab, UROP.
- ☐ Senior year: Complete restricted electives, project lab, UROP.

7.10/20.110J/5.60 can be taken at any time. Courses can also be started beginning in the junior year. This is useful for students changing majors or completing double degrees. Note that restricted electives must be in the list approved for undergraduates.

Biology Degree Requirements

Required Lecture Subjects:

- ☐ 7.012 or 7.013 or 7.014
- ☐ 7.03
- ☐ 7.05 or 5.07
- ☐ 7.06
- ☐ 5.111 or 5.112 or 3.091
- ☐ 5.12
- ☐ 7.10J or 20.110J or 5.60 (2.005, 3.012, 8.044, or 10.213)
- ☐ Three biology restricted electives from approved list under course offerings.

Required Laboratory Courses

- ☐ 7.02 (10.702 or 20.109 will substitute)
- ☐ Project lab (7.13, 7.16, 7.17, or 7.18)
  No project lab required for Course VII-A

Communication Requirements

- ☐ Two CI-M subjects in the Major
  - ☐ For Course VII: 7.02/10.702 or 20.109 and one of: 7.13, 7.16, 7.17, or 7.18
  - ☐ For Course VII-A: 7.02/10.702 or 20.109 and one of: 3.014, 5.36, 5.38, 7.19, 8.13, 9.02, 9.12, 9.18, 9.63, 10.26,10.27,10.28, 10.29, 20.380 or 2.791J/6.021J/20.370J.

General Institute Requirements

- ☐ Science requirements in Biology, Chemistry, Math, Physics
- ☐ Two CI-H subjects in the Humanities
- ☐ HASS (Humanities, Arts, and Social Sciences) subjects
  8 HASS subjects total
  - ☐ 3 HASS-D (Distribution) subjects from five HASS-D categories
  - ☐ 5 HASS electives
    - ☐ HASS Concentration requirement
      3–4 HASS subjects in a single field
    - ☐ Proposal and completion form
    - ☐ Additional HASS electives
  - ☐ 2 REST (*Restricted Electives in Science and Technology*)
- ☐ Laboratory Requirement
- ☐ Physical Education Requirement
  - ☐ Pass swim test
  - ☐ 4 PE subjects or equivalent

Course VII Q and A

Why should I consider a degree in Biology?
Biology is one of the most important disciplines today, with research at the frontiers of engineering, biotechnology and medicine.

What careers will a Biology degree prepare me for?
Biology is an excellent entry point for many professions, particularly, academic or industrial research in Biology, Bioengineering and related fields, medicine, management, finance, intellectual property law, teaching, forensics and bioethics.

Can I do research in the Biology Department?
Yes! Original laboratory research is a key part of the Biology major.

Does the Biology Department do any applied research?
Yes, research in almost all laboratories is relevant to human health. Examples include drug design, genomics and disease diagnosis, cancer, neurological disorders, virology and microbiology.

How many different Biology degrees are offered?
There are two major degrees, VII, and VII-A (which requires less research). A minor in Biology is also offered.

As a Biology major, will I have time to study other subjects?
Yes, the curriculum is designed to allow flexibility, and exploration of other subjects is encouraged.

Can I focus on a particular area of Biology?
Yes. There are many possibilities. The new BioTracks program recommends groups of courses that allow a student to gain depth and breadth in Biochemistry, Biophysics, Bioengineering, Cell, Developmental and Molecular Biology, Computational Biology, Human Biology, Microbiology or Neurobiology.

Is it reasonable to do a double degree with Biology?
Sometimes. Bioengineering, Chemistry and Chemical Engineering share many requirements with Biology, which makes a double degree with these courses feasible. A VII-A degree can be a good, less intense option.

As a premed, I'm told my choice of major doesn't matter. Is there a reason I should consider Biology?
The Biology Department is committed to educating premeds in aspects of Biology relevant to the molecular basis of disease. Your training will include formulating and testing hypotheses, a skill at the heart of diagnosis. We suggest a major, double degree or minor in Biology for all premeds.

How do Biology and Bioengineering differ?
The Biology curriculum builds a broad understanding of biological principles, focusing on current approaches and issues. In BE and related subjects, emphasis is placed on aspects of biological processes relevant to engineering.

How much will I interact with Biology Department faculty?
As extensively as you want to! You will have opportunities through classes, advising, UROP, class meetings and informal events.

How does advising work in the Biology Department?
You are assigned a faculty advisor. There are two required meetings per semester (Reg Day and mid-term), and other meetings may be set up as necessary.