Summary of biology courses open to first year students:

Spring 2017:

- **BIOLH123G and 127H**: “Perspectives in Biology: Scientific Literacy (first half of semester); Human Genetic Diversity (second half of semester)”. *K Johnson; P Meneely*. (2 x 0.5 credit, Spring semester). Tu Th 2:30pm-4pm.

- **BIOLH118B**: “Plants and People”. *J Wilson*. (1 credit, Spring semester).

**Note: students wishing to major in biology at Haverford must successfully complete one Natural Science credit, which includes a lab experience at Haverford, Bryn Mawr or Swarthmore, as a pre-requisite for taking Bio200 in their sophomore year.

More detailed course information for biology:

1. Courses designed for or appropriate for first year students and being offered in 2016-2017.

Spring Semester:

“PERSPECTIVES IN BIOLOGY” COURSES ARE 100 LEVEL COURSES FOR STUDENTS NOT INTENDING TO MAJOR IN THE SCIENCES. NO PREREQUISITES; NO LABORATORY EXPERIENCE; ENROLLMENT LIMITED TO 30. THE SPRING 2017 OFFERING IS A PAIR OF HALF SEMESTER COURSES – STUDENTS MUST REGISTER FOR BOTH (FULL SEMESTER).

**BIOLH123G**: “Perspectives in Biology: Scientific Literacy”. *K Johnson*. (0.5 credit, first half of Spring semester).

Description:
An introduction to the biological literature through reading and discussion of articles from the current primary and popular literatures. Our texts will include the week's issues of Science, Nature and The Science Times. We will follow new breakthroughs and discoveries as they are reported to the scientific community and consider both evolution and revolution in scientific thought in real time from the viewpoint of the larger scientific community. First half of spring semester. Enrollment limited to 30.

Prerequisite(s): lottery preference to freshmen and sophomores. Students must register for both Perspectives classes paired in a given semester to qualify for the single lottery that will be run for both classes. Does not count toward the major.

**BIOLH127H**: “Perspectives in Biology: Human Genetic Diversity”. *P Meneely*. (0.5 credit, second half of Spring semester).
Description:
A major scientific milestone marking the start of the 21st century was the publication of the human genome sequence. With the subsequent reading of many human genomes, comparisons reveal clues to the natural history of the human species. Starting with basic concepts of human genetics and topics such as natural selection, founder effects and genetic drift, the course will examine issues of human origins and migrations, diversity and the relationship between different populations and ethnic groups.
Second half of spring semester. Enrollment limited to 30.
Prerequisite(s): lottery preference to freshmen and sophomores. Students must register for both Perspectives classes paired in a given semester to qualify for the single lottery that will be run for both classes. Does not count toward the major.

A new offering for Spring 2017:

BIOLH118B: “Plants and People”. J Wilson.
(1 credit, Spring semester).
Description:
A multidisciplinary approach to the co-evolution and co-domestication of plants and humans. Topics will include the biology, physiology, evolution, and cultivation of key plants, embedded within their social history and environmental effects. Intended for non-majors and meets in parallel with Biology 318.
Crosslisted: Biology, Environmental Studies
Enrollment Limit: 7. Lottery Preference(s): First Year students. Students may take Biology 118 or Biology 318, but not both.

2. Courses recommended to students planning to major in Biology

It should be noted that the major tracks are quite different between Haverford and Bryn Mawr, and it can be difficult to move between the two departments. Students may choose between these complementary approaches to the study of living systems but should consider their selection carefully.

Students interested in majoring in Biology at Haverford should build a strong intellectual foundation in the Natural Sciences. The first Biology course in the major track is Biology 200, Cell Structure and Function, taken in the sophomore year. The prerequisite for Bio 200 is successful completion with a grade of 2.0 or higher of a minimum of one natural science credit (which includes a laboratory experience) at Haverford, Bryn Mawr or Swarthmore College. There is no placement out of this requirement. While most of our majors enroll in chemistry during their freshman year, that is no longer a pre-requisite so that introductory courses with include a laboratory experience in physics, geology (at Bryn Mawr) or computer science are now alternative routes into Biology 200. It is important that Faculty advisors and UCAs be aware of the Biology 200 prerequisite since it occasionally causes confusion.

3. Schedule of a typical biology major (a full listing of major requirements for Biology is published in the college catalog):

First Year: Enrollment in a minimum of one natural science credit (which includes a laboratory experience) at Haverford, Bryn Mawr or Swarthmore College as a prerequisite for Biology 200 in the Sophomore year. Students should also consider taking Mathematics while their high school experiences are still fresh.

Second Year: Bio200a,b Cell Structure and Function, the first Biology course of the major track

Third year: Bio300 a,b. Junior Superlab and
Four half-semester 300-level advanced topics courses

Fourth year: One half-semester Senior seminar, based on the primary literature from courses numbered at the 350-375 level; no substitution permitted. Students are encouraged to take more than one of these courses to enhance their Biology experience. A minimum of two 400-level Senior Research Tutorial credits, generally taken over both semesters of the senior year, including active participation in weekly lab meetings and submission of a notebook and a thesis describing the progress and results of the project. The tutorial may be taken for single or double credit each semester.

Senior Department Studies, Biology 499, a full year, ½ credit, speakers’ series.

Note: A minimum of one semester of chemistry and one advanced class (200-level or higher) in a natural sciences department other than Biology are additional requirements of the major and must be completed prior to graduation.

4. Study Abroad as a Biology Major
The flexibility of the Biology major track allows for students to study abroad in their junior year should they wish to do so. About 1/3 of our major class participate in a study abroad experience (either Fall or Spring semester or occasionally the full year). Students sometimes opt to devote their study abroad experience to the study of non-major courses while others include some biology courses. Students interested in studying abroad as biology majors should consult with the study abroad advisor upon completion of Bio200.

5. First Year courses in Bryn Mawr Biology Department
The Bryn Mawr Biology Department offers introductory thematic courses that lead into their major curriculum. Students wishing further detail should contact the Chair of the Bryn Mawr Biology Department (Professor Monica Chander, mchander@brynmawr.edu, phone: 610-526-5096).

Note: First year students who take Bryn Mawr 100-level biology classes and want to continue their biology education at Haverford should follow those classes with Bio 200 in their sophomore year. This is particularly important if they intend to major at Haverford (Bryn Mawr Biology 100-level classes do not substitute for Haverford Bio 200 in Haverford’s major sequence.)

6. Pre-Medical Requirements
Currently, Biology 200a –200b fulfills pre-medical requirements. Students interested in careers in medicine should attend meetings held at the start of the year by Jodi Domsky and arrange an advising session with her during their first semester. Majoring in Biology or the Natural Sciences is not required for successful application to medical school. Note that Perspectives in Biology courses at the 100-level do not have labs and therefore do not satisfy medical school admission requirements.

7. Concentrations and Minors
Many Haverford Biology majors participate in the Concentration in Biochemistry or Biophysics, the Concentration in Scientific Computing the minor in Neuroscience, the minor in Environmental Studies, as well as the minor in Health Studies. Concentration/minor requirements are described in the course catalog. First year students interested in concentrations/minors are advised strongly to meet with an appropriate program coordinator as soon as possible to ensure fitting all of the necessary requirements into their course schedules.

Questions about any biology-related information should be directed to the Chair of the Haverford Biology Department (Rachel Hoang, rhoang@haverford.edu).