

**B.A.-M.D. UNDERGRADUATE HANDBOOK
BROOKLYN COLLEGE
(REVISED AUGUST 2021)**

The B.A.-M.D. program at Brooklyn College is an eight-year program that includes four years of undergraduate study at Brooklyn College and four years of medical school at Downstate Medical Center's College of Medicine. The purpose of this handbook is to describe the policies and procedures of the undergraduate portion of the program.

Nota bene [Please note]: Brooklyn College and SUNY Downstate College of Medicine reserve the right, because of changing conditions, to make modifications of any nature in the policies and procedures of the undergraduate portion of the B.A.-M.D. program, provided that at least a one-year notice is given to those participants in the program who will be affected by these changes.

SPECIAL NOTE:

Effective Fall 2021, the requirement for a THIRD Honors PATHWAYS course of either ANTH 3135 or HNSC 3314 (see page 2 of HANDBOOK) will be made more flexible; either of these courses can be replaced by a third course that is NOT an Honors PATHWAYS course, but should be taken for Honors credit; this non-Honors, non-PATHWAYS course can be chosen from any one of the following:

HNSC 2120 (Epidemiology)
HNSC 2210 (Human Nutrition)
HNSC 5191 (COVID-19: Public Health Perspectives)
PHIL 3311 (Neuroethics)

In order to obtain Honors credit, simply approach the professor at the beginning of the semester and mention that you would like to take the course for Honors credit. The professor will then suggest a project that will allow you to earn Honors credit.

HNSC 2210 has a prerequisite of BIOL 1001 and BIOL 1002.
HNSC 2120 has a prerequisite of HNSC 1100 (Personal and Community Health). This requirement can be waived by contacting Dr. Michele Greene, Deputy Chair of Undergraduate Health, at: mjgreene@brooklyn.cuny.edu

ACADEMIC POLICIES AND PROCEDURES

1. Students must register for at least 15 credits each semester. No student may withdraw from a course without written approval from the program director. A withdrawal request must be made in writing with appropriate documentation attached.
2. Students are **REQUIRED** to complete all of the following:

The following science courses cannot be taken at Brooklyn College during the summer (if offered) or at another school except by permission of the program director:

- BIOL 1001 (General Biology 1)
- BIOL 1002 (General Biology 2)
- CHEM 1200 (General Chemistry 1 lecture)
- CHEM 1201 (General Chemistry 1 lab)
- CHEM 2200 (General Chemistry 2 lecture)
- CHEM 2201 (General Chemistry 2 lab)
- CHEM 2110 (Principles of Chemical Reactivity, concurrent with CHEM 2200)
- CHEM 3511 (Organic Chemistry 1 lecture)
- CHEM 3512 (Organic Chemistry 1 lab)
- CHEM 3521 (Organic Chemistry 2 lecture)
- CHEM 3522 (Organic Chemistry 2 lab)
- PHYS 1100 (General Physics 1)
- PHYS 2100 (General Physics 2)

The following MATH courses must be completed at Brooklyn College unless the student has taken MATH AB or BC in high school and received a 4 or 5 on the AP MATH AB exam or a 3 on the AP MATH BC exam:

- MATH 1011 or MATH 1012 (Pre-Calculus without or with recitation)
- MATH 1201 (Calculus 1)

Honors sections of *three* of the following general education (PATHWAYS) courses, where CLAS 1110, or HIST 1101, and PHIL 2101 are *mandatory*:

- ANTH 3135 (American Urban Experience)
- CLAS 1110 (Tyranny, Democracy, Empire: Classical Cultures)
- HIST 1101 (The Shaping of the Modern World)
- HNSC 3314 (Human Encounters with Death and Bereavement)
- PHIL 2101 (Introduction to the Problems of Philosophy)

Those students who are in Macaulay Honors College must meet this requirement as well as the requirement of four MHC seminars (MHC 1001, 1002, 2001, 2002).

INDS 4200 (Healthcare in the Inner City, BA-MD senior seminar)

Medical College Admission Test (MCAT)

Students should be aware of the major changes to the MCAT examination that occurred in spring 2015. Details of the revised MCAT are provided in Preview Guide to MCAT 2015, which can be accessed by going to the [AAMC website](#). There will be a minimum MCAT score requirement for each of the four sections of the revised MCAT as well as a minimum “total score” that B.A.-M.D. students must obtain in order to be eligible to matriculate into SUNY Downstate’s College of Medicine. Each year, the specific section scores and total score requirements will be communicated to the B.A.-M.D. students who will be sitting for the exam during that cycle. **See page 6 for more details.**

The following courses are *highly recommended* in preparation for the revised MCAT:

- CHEM 4571 (Biochemistry 1 lecture)
- CHEM 4581 (Biochemistry 2 lecture)
- PSYC 1000 (Introduction to Psychology)
- PSYC 3400 (Statistics)
- SOCY 1101/ANTH 1100 (Introductory Sociology/Anthropology)

Students are *encouraged* to take some the following courses in order to provide a stronger foundation for medical school:

- BIOL 2010 (Advanced Cell and Molecular Biology)
- BIOL 3003 (General Microbiology lecture), BIOL 3004 (General Microbiology lab)
- BIOL 3011 (Genetics)
- HNSC 2120 (Introduction to Epidemiology)
- HNSC 2300 (Human Physiology lecture), HNSC 2301 (Human Physiology lab)
- HNSC 7213X (Human Pathophysiology) [this is a graduate course; permission of the instructor is required]
- KINS 3281 (Anatomy and Physiology 1), KINS 3285 (Anatomy and Physiology 2)
- PHIL 3316 (Medical Ethics)
- PSYC 2810 (Abnormal Psychology)

3. Students will *not* be allowed to leave Brooklyn College after three years and matriculate into Downstate, even if all pre-med and college requirements have been completed.

4. Normally, incoming B.A.-M.D. students are urged to decline AP credits for General Chemistry, General Biology, and General Physics, and to take these courses at Brooklyn College. If a student chooses to accept AP credit for one year of chemistry, one semester of biology or possibly one year of physics, the student must take upper-level courses in that science, and these courses must have a lab component. Students coming in with AP or other exemptions from both MATH 1011 (Precalculus) and MATH 1201 (Calculus 1) are not required to take any additional math courses unless required by the major. However, students coming in with AP credit for ENGL 1010 (English Composition 1) will only need to complete ENGL 1012 (English Composition 2).

5. Students who major in a science must choose a minor in a non-science by completing the three-credit introductory course plus 12 credits of advanced courses in the minor; another alternative is to choose two majors, one a science and the other a non-science. If a student chooses to apply AP credits toward completion of a minor, only six credits of the 15 can be applied in this way.

6. General Chemistry, General Biology, Organic Chemistry, and General Physics courses must be completed by the end of the junior year. In addition, it is highly recommended that Biochemistry 1 and 2 be taken along with Physics during the junior year. The preferred sequence is:

- Freshman year: General Chemistry, General Biology
- Sophomore year: Organic Chemistry
- Junior year: General Physics, Biochemistry 1 and 2

POLICIES AND PROCEDURES REGARDING GRADES AND GPA

1. **The PASS/FAIL option cannot be utilized by B.A.-M.D. students for any courses except CHEM 4570, CHEM 4571, and CHEM 4581.** Please keep in mind that this option must be applied for during the first two weeks of class; the student should not decide to choose this option late in the semester, since an appeal will then be required.

2. In order to remain in the program, B.A.-M.D. students must maintain a cumulative overall GPA of 3.50, based on all courses, and a cumulative 3.50 science GPA. The science GPA is based on the following **REQUIRED** courses: CHEM 1100, CHEM 2100, BIOL 1001, BIOL 1002, CHEM 3511/3512, CHEM 3521/3522, PHYS 1100, and PHYS 2100; in addition, all other science and math courses (as defined by the classification table in the AMCAS Instruction Manual) will be included in calculating the science GPA. **CHEM 4570, CHEM 4571, and CHEM 4581 can also be taken for credit on a PASS/FAIL basis.** Note that a grade of F in a PASS/FAIL course is counted in a student's GPA, whereas a grade of P is not. If a student has not met the 3.50 GPA standard after completion of the first two semesters, the student will be issued a warning that his or her standing in the program is at risk. The records of all students in the program will be reviewed with Downstate each summer; INC and ABS grades on a student's transcript will be noted, and a student with either of these grades will be asked to have the grade cleared by the following semester. Under no circumstances will a student be allowed to matriculate to Downstate's College of Medicine with an INC or ABS grade on the final transcript. During the summer review, those students (excluding freshmen) who have not met either GPA standard will be dismissed from the program. A dismissed student who is just below the GPA standard may submit a petition for reconsideration as follows:

- The student must write a letter of appeal in which a complete explanation of the reasons why he or she fell below the performance standard are described.
- If the reasons as described in the letter are accepted by the B.A.-M.D. Review Committee, the student may be given the opportunity to be reinstated by completing particular courses with grades that will lift the cumulative overall or cumulative science

GPA above the 3.50 standard.

- If the student is able to obtain grades on the specified courses that bring the overall or science GPA above 3.50, the student will be reinstated in the program.

3. If a student obtains a grade below a C in any required science course listed above under **ACADEMIC POLICIES AND PROCEDURES**, a decision will be made after a discussion between the B.A.-M.D. director and SUNY Downstate as to whether the student should repeat the course or should move on and clearly demonstrate in subsequent semesters the ability to handle rigorous science courses.

SUMMER CLINICAL EXPERIENCE AND COMMUNITY SERVICE REQUIREMENTS

1. B.A.-M.D. students are required to complete at least 320 hours of clinical experience during the summer following the freshman or sophomore or junior year. The student can carry out this work anywhere in the United States but not in a foreign country. This experience should be a meaningful one, in which the student obtains a clear and realistic view of a career in medicine. Perhaps the most substantial experiences are internships that involve rotations through three or four medical areas in a hospital setting. However, other experiences can also be meaningful. The student must make sure that patient contact and the doctor-patient relationship are large parts of his or her experience. This experience cannot be satisfied by working in the health care practice of a parent or relative.

Students must obtain prior approval from the B.A.-M.D. director regarding the acceptability of the summer internship program. This approval should be received prior to the start of the internship. In order to receive approval, each student should submit a medical clearance form that clearly shows that the student has been immunized against several communicable diseases and has been appropriately tested for tuberculosis. In addition, the student should submit a signed one-paragraph statement on letterhead stationery from the prospective physician preceptor that indicates the location of the placement, the activities for which the student will be responsible, the hours the student will be working, the start and finish dates of the placement, and the name and phone number of the individual who will be directly responsible for overseeing the placement and who will know where the student is working at the site on any given day.

Upon completion of the summer clinical experience, the student must make sure that the preceptor submits a final signed letter on letterhead stationery to the director of the B.A.-M.D. program. The letter should indicate the start and finish dates of the internship, the days and hours worked per week, and a statement that the required 320 hours were completed. The supervising physician should also describe the kinds of experiences the student had and the activities in which the student participated. In addition, the physician should provide an evaluation of the student's participation and behavior.

[To access Health Form, Letter to Prospective Preceptors, and Questionnaire for Preceptor, go to www.brooklyn.cuny.edu, then under "Academics", click on "Honors Academy", then "Visit Coordinated BA-MD Program", then "BA-MD Handbook Forms" under "Related Links".]

2. The student is required to complete 60 hours of non-medical community service each semester following the completion of the freshman year. If the student wishes to volunteer at a site that has not been utilized previously by other B.A.-M.D. students, the student must obtain approval from the B.A.-M.D. director. No student may participate in volunteer work at the same site for more than two semesters, except on rare occasions. Approval from the director must be obtained if the student wishes to return to the same site for a third semester. At the completion of each semester's community service, the supervisor at the site should submit a "COMMUNITY SERVICE EVALUATION QUESTIONNAIRE" on behalf of the student. It is the student's responsibility to make sure that this form is sent to the B.A.-M.D. Office in a timely manner.

[To access Community Service Evaluation Form, see instructions above for accessing Health Form.]

POLICIES AND PROCEDURES REGARDING MCAT EXAM

A student in the B.A.-M.D. program must take the MCAT exam for the first time NO LATER than the summer following the junior year. B.A.-M.D. students who will be graduating after 2015 will take an MCAT exam that is extensively revised. The exam will be considerably longer and contain an additional section. The scoring system will be completely different from that used previously. The graduating class of 2020 will be expected to meet the following minimum section score requirements:

- Chemical and Physical Foundations of Biological Systems, 127
- Critical Analysis and Reasoning Skills, 126
- Biological and Biochemical Foundations of Living Systems, 128
- Psychological, Social, and Biological Foundations of Behavior, 127

The class will also have to meet the following minimum total score requirement: 509. The minimum score requirements for classes graduating after 2020 will depend on national data from future MCAT exam administrations.

If these minimum required scores are not achieved in a single exam (satisfactory scores on individual sections of one exam cannot be "saved" or carried over to another exam), the student will have to take the exam again. If the minimum scores on the second exam are again not achieved, the student will have to take the exam for the third and last time. The last date to take the MCAT exam is April of the senior year. If a B.A.-M.D. student does not manage to achieve the minimum required scores after three attempts, the student will be dismissed from the B.A.-M.D. program with no possibility of reinstatement. However, dismissed B.A.-M.D. students may still apply under regular admissions to medical schools of their choice.

AMCAS APPLICATION SUBMISSION AND DIRECTOR'S LETTER OF RECOMMENDATION

The online primary application for submission to the American Medical College Application Service (AMCAS) must be completed and received by AMCAS no later than November 1 of the senior year. However, it is highly recommended that students submit this application in early September, in case of delays in processing. An official Brooklyn College transcript must also be sent to AMCAS. In order for students to be given approval to apply to Downstate's "Combined Bachelors/Medical Degree" program, the B.A.-M.D. director must be provided with the AAMC ID number for each applicant. Even though B.A.-M.D. students are guaranteed a seat in Downstate's College of Medicine upon successful completion of the undergraduate portion of the program, it is imperative that students take this application seriously and not view it as a formality. Therefore, completion of the Coursework, Personal Statement and Experience sections of the application should be done with the utmost care. If Downstate Admissions judges that the application is inadequate, it will not be accepted and will have to be redone. When completing the Letters of Evaluation section of the AMCAS application, students should check off "Individual Letter" and next to "Downstate" in the list of schools, the students should click "EDIT" and assign the director's letter to this school. The director's letter will have previously been designated by creation of a file with the name and address of the director. A form called "AMCAS Letter Request" should be downloaded and given to the director. The director's letter will be submitted to AMCAS by December 1 of the students' senior year. To facilitate the preparation of a letter for each B.A.-M.D. senior and to allow the director to proofread each senior's AMCAS application before it is submitted, each senior should provide a copy of the completed application to the director.