

## Economics Department Advising Information for Students

The Economics Department offers both a major in Economics and a minor in Economics. In addition, the Business Department offers an interdisciplinary Business major and Business minor that are of interest to many Economics students as well as a Finance minor.

### **The Economics Major**

The requirements of the Economics major are:

1. two introductory courses
2. calculus
3. four intermediate theory courses (Econ 80a, 82b, 83a, and 184b)
4. four electives
5. students must also satisfy the writing intensive and oral communication requirements

The courses in items 1 and 3 represent the six core courses. In addition to the six core courses, the four electives, and calculus, there is an optional senior honors thesis.

***The introductory courses.*** The required introductory courses are Econ 10a (Introduction to Microeconomics) and Econ 20a (Introduction to Macroeconomics). (Econ 10a is a prerequisite for Econ 10a. Completion of Econ 2a with a grade of B+ or higher may be substituted for Econ 10a.) The introductory courses are offered each semester and by the Summer School. Students must earn a grade of C or higher in both introductory courses to continue with the major. A prospective major who receives a grade of C- or lower must retake the course and will not be allowed to enroll in core courses for which that course is a prerequisite until a grade of C or higher has been attained.

***Calculus.*** All majors must satisfy the calculus requirement. The calculus requirement can be fulfilled in one of three ways: a) completing Math 10a, an equivalent course, or a more advanced calculus course with a grade of C- or above or with a pass/fail grade of P, b) scoring at least 4 on the AP Mathematics AB test or at least 3 on the AP Mathematics BC test, or c) passing a departmental placement exam. Students who have taken a college calculus course elsewhere or who are entitled to Math 10a credit based on their AP or international exam score should transfer those credits to Brandeis. Students who have taken a calculus course and feel they have mastered the material but have not received the necessary math or exam credit may take the departmental placement exam.

The 2-hour placement exam is administered once at the start of each semester and each summer school session. Students who would like to sign up for the exam can do so on the Department website under [Undergraduate / Advising Information](#). If you have questions about how to sign up for the exam, contact Leslie Yancich ([lesliey@brandeis.edu](mailto:lesliey@brandeis.edu)). Students are encouraged to review prior to the exam; a sample exam is posted [here](#). The exam can only be taken once. Questions about the calculus requirement or the placement exam can be directed to the Undergraduate Advising Head ([econdeptuah@brandeis.edu](mailto:econdeptuah@brandeis.edu)).

All students must satisfy the calculus requirement prior to taking the intermediate theory courses (Econ 80a, 82b, 83a, and 184b) or any of the upper-level electives. If it is found that a student enrolled in Econ 80a, Econ 82b, Econ 83a, or Econ 184b has not successfully completed this prerequisite at any time during the semester, the student will be dropped from the course.

***The 80-level theory courses.*** Students are required to take Econ 80a (Microeconomic Theory), Econ 82b (Macroeconomic Theory), and Econ 83a (Statistics for Economic Analysis). The 80-level theory courses are offered each semester and by the Summer School. These courses can be taken in any order, but it is recommended that students take Econ 80a and Econ 83a before Econ 82b. (Since most of the upper-level electives have Econ 80a and 83a as prerequisites, this sequencing gives students more flexibility in completing their upper-level electives.) Students must earn a grade of C- or higher in each course to continue with the major. A prospective major who receives a D+ or below must retake the course and will not be allowed to enroll in upper-level electives for which that course is a prerequisite until a C- or better has been attained. Students receiving less than a C- in Econ 83a must retake the course and earn a C- or better before enrolling in Econ 184b.

Other Brandeis statistics courses that can substitute for Econ 83a are discussed under Miscellaneous Issues for Econ Majors below.

**Econometrics.** Econ 184b satisfies this requirement. Econ 184b is offered each semester but is not typically offered by the Summer School. A grade of C- or better is required. Students are encouraged to take Econ 184b soon after completing Econ 83a. Students who schedule long gaps between the two courses often struggle to relearn statistics while having to master more advanced material.

**Electives.** Students must take at least 4 additional semester courses. AT LEAST 2 must be “upper-level” electives, i.e., courses that have one or more of the 80-level theory courses as a prerequisite. In most cases, upper-level status can be inferred from the course number; “100-level” courses usually have 80-level prerequisites. But there are exceptions; Econ 122b (Economics of the Middle East) and Econ 175a (Introduction to the Economics of Development) are not upper-level electives, and new 100-level courses may be created in the future that do not have 80-level prerequisites. Any Economics course and any course cross-listed under Economics in the Bulletin can count toward the major, with a few exceptions. (Econ 92a (internship), Econ 93a (independent research), Econ 98 (independent study), Econ 99 (senior honors), and Econ 194 (research practicum) do NOT count toward the major. Int 89 and Int 92g also do NOT count toward the major.) Appropriate BIBS courses can qualify as lower-level or upper-level electives. HOWEVER, SOME BIBS COURSES DO NOT COUNT AS ECONOMICS ELECTIVES AT ALL. Students who hope to count a BIBS course toward the Economics major should check with the Undergraduate Advising Head BEFORE enrolling. There is no “lower-level requirement” – that is, students are free to make all 4 of their electives “upper-level” if they choose. **At least 3 of the 4 electives for the major must be courses that have Econ 2a, 10a, or 20a as a prerequisite. Note: The ECON, cross-listed BUS courses, and HSSP 104b have Econ 2a, 10a, or 20a as a prerequisite while the other cross-listed courses that may be counted as lower-level electives do not require Econ 2a, 10a, or 20a.** Students must earn at least a C- in three of the four electives. In other words, only one elective with a grade of D+, D, or D- may count toward the major.

**Foundational literacy requirements.** Students who entered Brandeis in Fall 2019 or later must satisfy the foundational literacy requirements.

Writing intensive (WI): by successfully completing any WI-designated Econ course or Bus 47a, or by substituting another WI-designated social science course that teaches similar writing conventions with formal approval of the Undergraduate Advising Head.

Oral communication (OC): by successfully completing any OC-designated Econ course, Bus 47a, or another OC-designated social science course.

Digital literacy (DL): by successfully completing Econ 83a or Econ 184b.

Students must earn a grade of C- or higher in each of these courses. Note: Bus 47a is open only to students who are also Business majors.

**Honors thesis.** A student wishing to graduate with honors in Economics must successfully complete a Senior Honors Thesis. In order to undertake an Honors Thesis, the student must have a GPA of 3.50 or higher in his/her Brandeis Economics courses and have completed Econ 184b before the first semester of their final year, i.e., before starting the thesis. More information about the Senior Honors Program can be found on the Department website under [Undergraduate / Senior Honors Program](#).

### **Miscellaneous Issues for Econ Majors**

**Minimum GPA for majors.** Majors must achieve at least a 2.00 average in their Economics courses. If a student has taken more than ten Economics courses, we use the best ten grades to compute the average. Only Brandeis grades are averaged. (For example, for a student with a summer school course taken elsewhere, we would average the best nine Brandeis grades.) A student who fails a course can take it again; once the student passes the course, we count only the passing grade. Students may also retake courses they have passed. This is advisable when mastery

of the course material is important for the achievement of the student's academic goals. If a student passes a course twice, we count the higher of the two grades.

**Pass-fail.** A course with a P/F grade cannot be used to satisfy the requirements for the major or the minor. The one exception is that the calculus requirement can be satisfied by completing a calculus course with a pass/fail grade of P. A course with a P grade in Spring 2020 can also count toward major/minor requirements; regular pass/fail restrictions were suspended that semester as part of the University's COVID-19 response.

**Internship courses (Bus 89a and 89b, Int 89 and 92g, and Econ 92a), independent research (Econ 93a), independent studies (Econ 98), senior honors (Econ 99), and research practicums (Econ 194).** These courses do NOT count toward departmental requirements.

**Economics AP and transfer credits.** Students who arrive with AP credit in micro (4 or 5) or credit for Introductory Micro taken elsewhere can receive credit for Econ 10a and can complete the major with one fewer course. Students who arrive with AP credit in macro (4 or 5) or credit for Introductory Macro taken elsewhere can receive credit for Econ 20a and can complete the major with one fewer course. Students who arrive with credit for a one-semester Introduction to Economics course should consult the Undergraduate Advising Head regarding appropriate departmental credit.

**International exam credit.** Students who receive a 5 or better on the International Baccalaureate Economics Higher-Level exam; an A, B, or C on the A-Level Economics exam; or a 14 or better on the French Baccalaureate Economics exam can receive credit for both Econ 10a and 20a. More information is available [here](#). The University does not recognize O-Level or International Baccalaureate Standard Level exams.

**Limit on departmental credit for courses taken elsewhere.** A student must take at least 5 of the 10 core and elective courses required for the Economics major at Brandeis or through an approved study abroad program.

**Statistics.** Math 36a AND 36b may substitute for Econ 83a. Psychology majors may substitute Psyc 51a for Econ 83a, Politics majors may substitute Pol 52a for Econ 83a, and Biology majors may substitute Biol 51a for Econ 83a. However, Math 8a, the statistics classes offered by Business (Bus 1b, 51b, and 51a), and AP Statistics can NOT substitute for Econ 83a. NOTE: Students who have had a different statistics course, either at Brandeis or another university (common for transfer students), may not have had the coverage of regression analysis that Econ 83a provides. In such cases, the student should get a syllabus for Econ 83a and attend the final (regression) section of that course.

Ideally, students will satisfy the statistics requirements for their majors by taking a single statistics course. Econ majors are encouraged to satisfy the Econ 83a requirement by taking Econ 83a (or Math 36a and 36b) unless they wish to take an equivalent statistics class in one of their other majors (Psyc 51a, Pol 52a, or Biol 51a).

**Finance courses.** Students are discouraged from taking Fin 103a (formerly Econ 71a and then Bus 71a) concurrently with or after completing Econ/Fin 171a. The material overlaps too much. Students planning to be Econ majors are advised to take only Econ/Fin 171a. Note: Fin 103a does NOT count toward the Economics major or minor.

### **Useful Advice for Econ Majors**

**The 80-level theory courses.** If possible, majors should finish the introductory and 80-level theory courses by the end of junior year to allow time to take upper-level electives. (Students considering studying abroad in their junior year need to satisfy as many requirements as possible in the sophomore year.) Many students take two of the 80-level theory courses in the same semester, though this is not the norm. Those starting the major as juniors may need to take one or more of the 80-level courses in summer school.

**BA/MA program.** Many Econ majors participate in the 5-year BA/MA program. For students in this program, their senior year is also the first year of the Lemberg MA program, even though they are still undergraduates. They earn their BA in Economics at the end of the fourth year and a Lemberg Program master's degree in International Economics and Finance (MAief) at the end of the fifth year. Students who did not enter Brandeis as [International](#)

[Business Scholars](#) but decide they are interested in the BA/MA program can apply in their junior year. More information is available on the BIBS's [BA/MA program website](#). The [BA/MA application page](#) includes recommended course preparation and is therefore a useful reference for course planning.

***Study abroad.*** Students planning to study abroad for one or both semesters of their junior year should complete as many of the 80-level courses as possible prior to studying abroad. This recommendation is based on the following considerations. Students who have already completed the 80-level courses will be able to take greatest advantage of the Economics classes offered abroad, including upper-level elective offerings. And even if a student does not take any upper-level electives while abroad, there will still be time to satisfy the upper-level elective requirement in subsequent semesters. Students do sometimes take 80-level courses while abroad. However, courses equivalent to the 80-level courses are not offered in all programs and students who take 80-level courses abroad miss out on the opportunity to take electives not offered at Brandeis or electives that might better complement their study abroad experience.

While classes with the prerequisites necessary to count as upper-level electives were offered primarily at UK or British Commonwealth universities in the past, more and more study abroad programs offer students the opportunity to take upper-level electives. However, many study abroad programs only offer lower-level electives.

Students interest in the [Brandeis in Copenhagen](#) (BiC) program should plan their schedules so that they will be able to take at least two of the classes offered in the program that summer, e.g., saving Econ 80a and Econ 57a to take in the BiC program.

***Major/minor credit for courses taken elsewhere (including study abroad).*** Departmental credit for courses taken elsewhere (other than credit for AP or international exams) is determined by the Undergraduate Advising Head. Students can avoid problems later by checking in advance on the applicability of planned coursework for the Economics major or minor. Students must also submit the appropriate form to claim departmental credit. The forms can be found [here](#). In the case of summer classes taken elsewhere, the relevant form can be submitted prior to taking the class (recommended). In other cases, the form is submitted after the student has completed the class.

***Monitoring progress through the major/minor.*** Students can monitor their progress through the Econ major/minor using the degree audit in Workday (Academics / Academic Progress). Any discrepancies between what is recorded in the degree audit and the departmental credit the student thinks they have earned should be brought to the attention of the Undergraduate Advising Head for resolution. The information reported in the degree audit is what the Registrar's Office goes by in awarding degrees, etc., so it is important that this information be complete and accurate.

## **The Economics Minor**

The requirements for the Economics minor are two introductory courses and four electives for students who entered Brandeis in Fall 2020 or later / three electives for students who entered Brandeis before Fall 2020. The required introductory courses are Econ 10a (Introduction to Microeconomics) and Econ 20a (Introduction to Macroeconomics). (Econ 10a is a prerequisite for Econ 20a. Completion of Econ 2a with a grade of B+ or higher may be substituted for Econ 10a.)

For students who entered Brandeis in Fall 2020 or later, AT LEAST 3 of the 4 electives for the minor must be courses that have Econ 2a, 10a, or 20a as a prerequisite. For students who entered Brandeis before Fall 2020, all 3 electives for the minor must be courses that have Econ 2a, 10a, or 20a as a prerequisite. Currently, the cross-listed undergraduate courses that have Econ 2a, 10a, or 20a as a prerequisite are Bus 6a, Bus 10a, and HSSP 104b. (Econ 92a, 93a, 98, 99, and 194 do NOT count as electives for the minor.)

Students wishing to complete the Economics minor can satisfy the introductory course requirements with appropriate AP or international exam credit, just as they can for the major. Students wishing to use other Brandeis courses or courses taken elsewhere to satisfy the requirements of the minor must get the approval of the Undergraduate Advising Head.

To complete the Economics minor, students must attain a grade of C or better in both introductory courses and a grade of C- or better in each of the electives. Students must also achieve a GPA of 2.00 or higher in the courses that constitute their Economics minor.

### **How to Declare an Economics Major or Minor**

There are two ways to declare a major or minor. Many students discuss the program with the Undergraduate Advising Head, get the Undergraduate Advising Head's signature on the declaration form, and are then assigned an advisor by Leslie Yancich ([lesliey@brandeis.edu](mailto:lesliey@brandeis.edu)) in the Economics Office. Other students seek out an advisor first, have the advisor sign the declaration form, and then obtain the Undergraduate Advising Head's signature.

In either case, the student needs to get a Major / Minor Change Request Form from the Economics Office, from Academic Services, or from the Registrar's [website](#). (The pdf is a fillable form.) The purposes of this form are to give the student a sense of the scope of the program the student is declaring and to help the student in planning the remaining semesters at Brandeis. The student lists on the form any Economics (or cross-listed) courses the student has already taken, is currently taking, or is planning to take in the next semester. For majors, how the calculus requirement has been or will be fulfilled should also be noted. The student's advisor (or the Undergraduate Advising Head) will take care of the rest.

### **The Business Minor**

The Business minor consists of six courses, one of which is Econ 2a or 10a. A separate Major / Minor Change Request Form must be completed for the Business minor. Students who wish to declare a Business minor should see Pin Lun Lee ([arlenlee@brandeis.edu](mailto:arlenlee@brandeis.edu)).

For non-Economics students, the Business minor is relatively straightforward. For Economics majors things are a little trickier. They may double count no more than two courses (one of which is Econ 2a or 10a). This means that the Economics major/Business minor combination requires a total of 15 distinct courses (including calculus), 4 more than the Economics major alone and 2 fewer than the 17 that would be required for both considered separately.

Students wishing to combine an Economics minor and a Business minor may also double count no more than two courses. For such students, Business double counts Econ 2a or 10a with the Business minor. For students who entered Brandeis in Fall 2020 or later, Bus 10a will count as an elective for the Econ minor. For students who entered Brandeis before Fall 2020, no Business courses can double count as electives for the Economics minor if the student is also a Business minor. A total of 10 courses are required to complete both minors.

### **The Business Major**

The Business major consists of Econ 2a or 10a plus 12 other semester courses. A separate Major / Minor Change Request Form must be completed for the Business major. Students who wish to apply for a Business major should see Hagit Weihs ([hagit@brandeis.edu](mailto:hagit@brandeis.edu)).

For students wishing to combine an Economics major and Business major, at most two courses (besides Econ 2a or 10a) can double count for the two majors as follows: Bus 10a (required for the Business major) will count as a lower-level elective for Economics and Econ 20a (required for the Economics major) will count as a Business elective. In addition, Econ 83a exempts Business majors from Bus 51a, Econ/Fin 171a exempts Business majors from Fin 103a, and Bus 47a satisfies the writing intensive and oral communications requirements for the Econ major.

Students wishing to combine a Business major and Economics minor are also subject to additional restrictions. They can double count no more than two courses (besides Econ 2a or 10a) for the major and minor. For students who entered Brandeis in Fall 2020 or later, Bus 10a will count as an elective for the Econ minor. For students who entered Brandeis before Fall 2020, no Business courses can double count as electives for the Economics minor if the student is also a Business major.

## **The Finance Minor**

The Finance minor is described in the Business entry of the Bulletin. Business and Economics majors and minors may double count only two courses toward the Finance minor.

## **Non-Economics Courses that Count As Economics Electives**

***Cross-listed courses.*** Any course officially cross listed under Economics in the Bulletin counts as an elective for the Economics major. Each of the cross-listed undergraduate classes is considered a lower-level elective. Note that not all these courses have Econ 2a, 10a, or 20a as a prerequisite. Only one course that does not have Econ 2a, 10a, or 20a as a prerequisite can count toward the major or toward the minor for students who entered Brandeis in Fall 2020 or later. For students who entered Brandeis before Fall 2020, a course can count as an elective for the minor only if it has Econ 2a, 10a, or 20a as a prerequisite. Currently, the cross-listed courses that have Econ 2a, 10a, or 20a as a prerequisite are Bus 6a, Bus 10a, and HSSP 104b.

***Brandeis International Business School (BIBS) Courses.*** Prior to registration each semester, the Economics Department distributes a newsletter or registration memo that includes a list of BIBS classes with spaces for undergraduates. Students wishing to enroll in BIBS courses must get a consent code from Leslie Yancich ([lesliey@brandeis.edu](mailto:lesliey@brandeis.edu)). Many BIBS courses are taught as modules (2-credit half-semester courses); the Undergraduate Advising Head can approve 2 appropriate modules as a single economics elective. Note: As for undergraduate courses, students who wish to enroll in BIBS courses must satisfy the prerequisites for those courses.

Some BIBS courses, usually those that are pre-professional and lack economic content, do NOT count as Economics electives. Students with a question about whether a specific BIBS course counts (other than those described immediately below), should contact the Undergraduate Advising Head. Any 300-level (PhD) Econ course counts as an UPPER-LEVEL elective. The PhD courses most often taken by qualified undergraduates are Econ 301a, 302a, 303a, and 304a. Econ 202a, Econ 260a, Fin 203a, and Fin 204a are Lemberg “core” courses that are equivalent in level and content to Economics UPPER-LEVEL electives. Undergraduates who are NOT in the Lemberg program cannot take these courses and must take the corresponding undergraduate Economics courses instead (Econ 161a, Econ 160a, Econ/Fin 171a, and Fin 104a, respectively). For BA/MA students, these Lemberg courses DO COUNT toward the Economics UPPER-LEVEL elective requirement. Similarly, undergraduate students should take Econ 80a rather than Econ 207a and Econ 184b rather than Econ 213a. Only undergraduates who have formally entered the BA/MA program should take Econ 207a and Econ 213a rather than the corresponding undergraduate courses.

## **Internships**

Many Economics and Business students choose to complete internships either during an academic semester or during a summer, normally after at least two years at Brandeis. Internship opportunities are described at <https://www.brandeis.edu/hiatt/jobs-internships>. Most economics majors and minors interested in getting credit for an internship enroll in [Int 89](#) (2-credit) for semester internships or [Int 92g](#) (1-credit) for summer internships. (The summer school course requires payment of a small amount of tuition). Interested students should consult Jon Schlesinger in the Hiatt Career Center for further information. Internship classes do not provide credit toward the ECON major or minor but do earn numerical credit toward the 128 credits required for graduation.

There are two additional ways students can get academic credit for an internship. (1) A student who studies abroad in a program that has a supervised internship as part of the curriculum can receive credit. (2) Economics majors who are undertaking interdepartmental programs with economics connections (e.g., Legal Studies, Environmental Studies) and are doing an internship related to economics to fulfill the requirements of the program, may enroll in Econ 92a. Like Int 89 and 92g, Econ 92a does not provide credit toward the ECON major or minor, but it does count as one of a student’s thirty-two courses. Requests to enroll in Econ 92a must be approved by the Undergraduate Advising Head.