An interdepartmental program East Asian Studies

Objectives

East Asian studies is an interdisciplinary program that seeks to give the student broad yet intimate knowledge of East Asian civilization. It can be taken either as a major or a minor. At the crux of the program is the language requirement of an East Asian language, providing the basis for postgraduate study or careers dealing with East Asia.

Committee

Ralph Thaxton, Chair (Politics)

Donald Hindley (Politics)

Gary Jefferson (Economics)

(Sociology and Women's Studies)

Richard Lyman (History)

Ellen Schattschneider (Anthropology)

John Schrecker (History)

Hiroko Sekino (German, Russian, and East Asian Languages and Literature)

Aida-Yuen Wong (Fine Arts)

Requirements for the Major

A. Satisfactory completion of at least 10 semester courses from among the EAS and cross-listed offerings. No course with a grade below C- can count towards the major requirement of 10 courses. It is expected that at least five of the courses used to fulfill the major will be taken in residence at Brandeis.

B. Completion of the 40 level or its equivalent in Chinese or Japanese. Students who can demonstrate this level of competence in another East Asian language may use it to fulfill the requirement. Note that in a student's first East Asian language, no course below the 40 level may count toward the 10 required courses for the major. However, if a student has achieved the 40 level in one language, courses in additional East Asian languages at or above the 20 level may count toward the 10. For further information on these language requirements, see the undergraduate advising head.

C. The EAS core course, HIST 80a (Introduction to East Asian Civilization).

D. From the EAS or cross-listed offerings:

At least one course in the social sciences (in addition to HIST 80a) and at least one course in the humanities or creative arts.

An additional course in either the social sciences (other than HIST 80a) or in the humanities or creative arts.

E. Candidates for honors are required to register for EAS 99d or for a 99d in an appropriate department and to prepare an honors thesis on a topic relating to East Asia. If completed successfully, the 99d (a year-long two-semester course) can be counted as two of the 10 courses of the major.

Requirements for the Minor

A. Completion of the 40 level or its equivalent in Chinese or Japanese. Students who can demonstrate this level of competence in another East Asian language may use it to fulfill the requirement. For further information on these language requirements, see the undergraduate advising head.

B. The EAS core course, HIST 80a (Introduction to East Asian Civilization).

C. At least three additional courses from the EAS or cross-listed offerings. These three courses must be in at least two different departments.

Courses of Study: Minor

Major (B.A.)

To enroll in the program, either as a major or a minor, students must

faculty member who seems best suited to that student's interest and

see the program chair. Together they will select as an advisor a

How to Become a Major or a Minor

area of future work.

Nadia Kim

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Courses of Instruction

(1-99) Primarily for Undergraduate Students

EAS 98a Independent Study Usually offered every year. Staff

EAS 98b Independent Study Usually offered every year. Staff

EAS 99d Senior Research

Seniors who are candidates for degrees with honors in East Asian studies must register for this course and, under the direction of a faculty member, prepare an honors thesis on a suitable topic. Usually offered every year. Staff

(100-199) For Both Undergraduate and Graduate Students

EAS 175a Masterpieces of Chinese Literature

This course may not be repeated for credit by students who have taken COML 175a in previous years.

Surveys Chinese literature from the classical era through the 18th century. Readings are in English translation and include a wide range of genres, with particular emphasis on the great Chinese novels. Usually offered every third year. Staff

Core Courses

CHIN 10a Beginning Chinese

CHIN 20b Continuing Chinese

CHIN 30a Intermediate Chinese

CHIN 40b Advanced Intermediate Chinese

HIST 80a Introduction to East Asian Civilization

JAPN 10a Beginning Japanese

JAPN 20b Continuing Japanese

JAPN 30a Intermediate Japanese

JAPN 40b Advanced Intermediate Japanese

Electives

ANTH 178b Culture, Gender, and Power in East Asia

CHIN 98a Readings in Modern Chinese

CHIN 98b Readings in Modern Chinese

CHIN 105a Advanced Conversation and Composition I

EAS 175a Masterpieces of Chinese Literature

ECON 64a East Asia's Economies

ECON 175a Introduction to the Economics of Development

FA 12a History of Asian Art

FA 181b The Art of Japan

FA 184a Studies in Asian Art

HIST 176a The Emergence of Modern Japan

HIST 180b Topics in Modern Chinese History

HIST 181a Seminar on Traditional Chinese Thought

JAPN 98a Readings in Japanese

JAPN 98b Readings in Japanese

JAPN 105a Advanced Conversation and Composition I

PHIL 119b Chinese Philosophy

POL 147a The Government and Politics of China

POL 148a Seminar: Contemporary Chinese Politics

POL 150a Politics of Southeast Asia

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Courses of Study: Minor Major (B.A.)

Department of Economics

Objectives

Majors in economics receive broad yet rigorous training in the core subjects of the discipline: general principles, micro and macroeconomic theory, and statistics. They learn to use skills developed in the core courses to analyze a variety of economic problems, social issues, and economic institutions. These skills are applied and reinforced in four elective courses chosen from a list that includes most of the subfields of interest to economists, e.g., international economics, financial markets, industrial organization, institutional economics, the regulation of economic activity, the public sector, technology, growth and development.

The department stresses the development and use of analytic and quantitative approaches for analyzing and understanding human choice and economic behavior, the functioning of the economic system, and specific subject areas and economic issues. (As a consequence we anticipate that students develop analytic and quantitative skills in the economics major that are useful not only for economics but for other subjects as well.) Theoretical and applied courses are available. Upon completion of the major, students are expected to be familiar with the scholarship associated with a variety of economic subjects; majors learn to read books and articles written for the general economist.

The major in economics provides background for many positions in business or government. A few graduates pursue advanced degrees in economics while others enroll in professional schools of business, law, and other fields. Programs of study can be designed to match the interests of the student (see list of courses on page 130).

Qualified seniors are invited to participate in the department's honors program, which involves research and the writing of a thesis under the supervision of a member of the faculty. Before the senior year, Brandeis undergraduates can apply for admission as "five-year students" to the Lemberg Master's Program in International Economics and Finance (see Brandeis International Business School section of this *Bulletin*). The department offers a minor in economics; a business minor is also available (see the Program in Business section of this Bulletin).

How to Become a Major

The major has a single entry point, ECON 2a (Introduction to Economics). (This course is also an option in the quantitative reasoning component of the General University Requirements.) Most majors begin their study in the first or second year with ECON 2a followed by a second principles course, ECON 8b (The Global Economy). Five core courses are required (two principles courses followed by three intermediate theory courses: microeconomic theory, macroeconomic theory, and statistics) plus four electives. It is important to begin the study of economics early because "upper level" electives, a requirement for the major, build on intermediate courses and have from three to six prerequisites. Also, some calculus is used in intermediate theory courses; students who have not had a good high school calculus course should take MATH 10a (Techniques of Calculus), at a minimum. Students with limited mathematical training should begin with MATH 5a (Precalculus Mathematics).

Faculty

Gary Jefferson, Chair

Technological change, institutional economics, development, industrial organization, and China.

Serkan Bahçeci

Macroeconomic theory and econometrics.

Chad Bown

International economics, economic development, and industrial organization.

Linda Bui

Environmental economics, public finance; applied micro economics, and industrial organization.

Laarni Bulan

Corporate, firm investment, and real option finance.

Anne Carter

Technological change. Input/output.

Stephen Cecchetti

Advanced macroeconomic theory, monetary economics, and financial economics.

Shi-fen Chen International marketing and investment.

H. Michael Coiner

Economics of higher education, macroeconomics, and international economics.

F. Trenery Dolbear Macroeconomics and public sector.

Can Erbil

Economic development, international trade, and public finance.

Benjamin Gomes-Casseres

International business and international political economy.

Adam Jaffe. Dean of Arts and Sciences

Technological change, economics of regulation, and industrial organization.

Blake LeBaron

Macroeconomics, international finance, and microeconomics.

Rachel McCulloch

International trade theory, trade policy, macroeconomic coordination, investment and technology transfer.

Nidhiya Menon

Empirical microeconomics, economic development, econometrics, and economic demography and labor.

Carol Osler

International finance, financial markets, open economy, and macroeconomics.

Peter Petri

International trade, development, Japan, and Korea.

Paroma Sanyal

Industrial organization, regulation, and microeconomics

Rashmi Shankar

Macroeconomics and international finance.

Shahbaz Ali Sheikh

Corporate finance and international business.

Naravanan Subramanian

Corporate finance, financial economics, and microeconomics.

Requirements for the Major

A. ECON 2a (Introduction to Economics) and ECON 8b (The Global Economy). A grade of C or higher is required in these courses.

B. ECON 80a, 82b, and 83a. Students receiving less than a C- for any of these courses must retake the course and earn a C- or better before enrolling in any upper level elective.

C. Four elective courses in economics, at least two of which must be "upper level." Upper-level electives are courses that have as prerequisites ECON 80a, ECON 82b, or ECON 83a. Note: Not all 100-level courses meet this criterion. In particular ECON 172b and ECON 175a are lower-level electives. Lower-level electives can be any course in economics other than the required courses, except that ECON 98a,b, ECON 99a,b, and BUS 92b do not count as electives for the major. Only one course that does not include ECON 2a as a prerequisite can be accepted as a lower level elective. Eligible course include cross-listed courses and certain other courses that contain significant economics content offered by IBS, Heller, and any other department in the social sciences. Any student who intends to offer an economicsoriented course in another department or school toward the economics major should obtain approval of the undergraduate advising head in advance.

D. A passing letter grade must be obtained in each course taken for credit toward the major. (Pass/Fail courses are not allowed.) Students must also achieve a grade point average of at least 2.00 in the major courses; students close to this average should consult the undergraduate advising head before enrolling in economics courses for the senior year.

E. Any exception to the above rules requires department approval by petition.

See the department academic administrator or the undergraduate advising head for a petition; for example, a student must petition to get major credit toward the major for an economics course taken at another university.

Requirements for the Undergraduate Minor

A. ECON 2a (Introduction to Economics) and ECON 8b (The Global Economy).

B. Three additional economics courses of which all but one must include a prerequisite of at least ECON 2a. As with the major, courses offered by IBS, Heller, and other institutions may be substituted if their content is primarily economics, but such substitution requires the permission of the undergraduate advising head.

C. Students undertaking the economics minor and the business minor are subject to additional restrictions to minimize the overlap in content. Consult your advisor for approval of such combined programs.

D. A grade point average of 2.00 or higher is required in courses offered for the minor.

Special Notes Relating to Undergraduates

Business Minor

Students interested in pursuing a formal program in business should consult the description given in the business program section of this Bulletin. Students who originally enrolled in the program in international business prior to Fall 2003 may complete either the business minor or the program in international business.

Mathematics

The required intermediate theory courses (80a, 82b, 83a) assume a knowledge of calculus at the level taught in MATH 10a (Techniques of Calculus). (Students with weak mathematics background should begin with MATH 5a [Precalculus Mathematics].) For some more advanced courses, additional calculus and linear algebra provide a useful background. Students unsure of the adequacy of their mathematics preparation should consult their advisor.

Academic Advisor and Selection of Courses

Students are strongly advised to choose courses with well-considered educational objectives in mind. Course offerings in economics can be grouped roughly into four categories (see below). Some students will wish to take at least one course from each of the five groups and thereby obtain a broad exposure to the discipline. Others will find a more narrow focus with in-depth study in only a few groups more appropriate. Each major should discuss educational objectives and course selections and sequencing with his/her academic advisor.

ECON Course Offering Groups

1. Core Analytical Courses

- 2aIntroduction to Economics
- 8b The Global Economy
- 64a East Asia Economies
- 80a Microeconomic Theory 82b
- Macroeconomic Theory 83a
- Statistics for Economic Analysis

2. International and Comparative

- 60a The Economics of International Trade Disputes
- 125a Comparative Institutional Economics
- 141b Technology and the Global Economy
- 160a International Trade Theory
- 161a International Finance
- 175a Introduction to the Economics of Development*
- 176a The Household, Health, and Hunger in Developing
- Countries 178b Monetary and Fiscal Policy

3. The U.S. Economy: Analysis, Institutions, Policy

- Social Priorities and the Market 56b
- 57a **Environmental Economics**
- 59b The Economics of Education
- 71b Introduction to Finance
- 74b Law and Economics
- 76b Labor Economics
- 77a Introduction to Regulation and Public Policy
- 129b Economics for the New Economy
- 133a Economics of Discrimination and Inequality
- 134b Public Sector Economics
- 135a Industrial Organization
- 139a Economics of Antitrust
- 171a **Financial Economics** 172b
- Money and Banking
- 174a Corporate Finance 177b
- Economic Regulation and Deregulation
- 181b Game Theory and Economic Applications

4. Analytical Methods

- 62a Introduction to Game Theory
- 184b Econometrics

Several first-year Brandeis International Business School courses may be appropriate analytical electives for advanced undergraduates. These include courses in the Ph.D. program in International Economics. See your advisor or the undergraduate advising head.

*This course is considered a lower-level elective.

Courses of Instruction

(1-99) Primarily for Undergraduate Students

ECON 2a Introduction to Economics

[qr ss]

Common final exam. A one-semester introduction to economic analysis with policy applications. The economist's approach to social analysis is systematically elaborated. Usually offered every semester in multiple sections. Staff

ECON 8b The Global Economy

ss wi

Prerequisite: ECON 2a. Common final exam.

The basic tools and models of economic analysis are applied to a wide range of topics in micro, macro, and international economics. Usually offered every semester in multiple sections. Staff

ECON 56b Social Priorities and the Market [ss]

Prerequisite: ECON 2a.

Examines the strengths and limitations of free markets in promoting major social goals: efficiency, equity, and technological advance. Usually offered every year. Ms. Carter

ECON 57a Environmental Economics *Prerequisite: ECON 2a.*

This course will investigate the theoretical and policy problems posed by the use of renewable and nonrenewable resources. Theoretical topics include the optimal pricing of resources, the optimal use of standards and taxes to correct pollution problems under uncertainty, and the measuring of costs and benefits. Usually offered every second year. Mr. Jaffe

ECON 59b The Economics of Education [ss]

Prerequisite: ECON 2a.

An introduction to economic analysis of the education sector. Topics include the concept of human capital, private and social return to investment in education, costbenefit analysis of special educational programs, and issues in the financing of education. Usually offered every second year.

Mr. Coiner

ECON 60b The Economics of International Trade Disputes

[ss]

Prerequisite: ECON 8b. Analyzes economic issues involved in a set of recent international trade disputes at the frontier of disagreement and conflict in international economic relations from the perspective of directly and indirectly affected participants such as firms, workers, consumers, policy makers, and NGOs. Usually offered every year. Mr. Bown

ECON 62a Introduction to Game Theory [ss]

Prerequisite: ECON 2a. An introduction to the analysis of multiperson strategic decision-making. Introduces the basic concepts of game theory, under both complete information and uncertainty, and examines its applications to several fields, including economics, politics, law, biology, and computer science. Usually offered every year.

Mr. Bahçeci

ECON 64a East Asia's Economies [ss]

Prerequisite: ECON 2a. Examines the post-war economic performance of the East Asian countries, expecially Japan, China, Korea, and Taiwan. Emphasizes the public policies, institutional features, and historical conditions that accounted for the performance of these four economies. Also explores differences between the East Asian models of economic development and those of the Western economies, particularly the United States. Usually offered every second year.

Ms. Saiki

ECON 71a Introduction to Finance

Prerequisite: ECON 2a. This course may not be repeated for credit by students who have taken ECON 171a in previous years. Designed to give students an overview of the issues involved in modern finance. Topics include random walks, bubbles, derivative markers, online trading, hedge funds, foreign exchange markets, and recent international crises. Usually offered every year.

Mr. LeBaron

ECON 74b Law and Economics

[ss]

Prerequisite: ECON 2a. A study of economic foundations of American law in selected areas of interest. Topics include the role of property rights and liability rules in the control of externalities, controlling the cost of accidents, the control of criminal behavior, product failure and damage, medical malpractice. Usually offered every second year.

Staff

ECON 76b Labor Economics

[ss] Prerequisite: ECON 2a.

Topics include: Analysis of competitive and less-than-competitive markets. Rationale for alternate methods of paying workers (e.g., hourly wages, piece rates, bonuses). Sources of wage differentials among jobs and workers. The U.S. labor movement, the process of collective bargaining, and the economic effects of unions. Effects of government interventions in the labor market, such as the minimum wage and occupational safety regulation. Extent and effects of discrimination in the labor market. Inequality in the distribution of wages. Mr. Coiner

ECON 77a Introduction to Regulation and Public Policy

[ss]

Prerequisite: ECON 2a. This course may not be repeated for credit by students who have taken ECON 177b in previous years. Economic rationale behind government intervention in markets. Theoretical, practical, and historical aspects of regulation. Recent trends toward deregulation or regulatory reform. Specific case studies such as telecommunications, electric utilities, environment, transportation, drugs, and workplace safety. Usually offered every second year. Ms. Sanyal

ECON 80a Microeconomic Theory

[ss]

Prerequisite: ECON 8b. Intermediate theory courses (ECON 80a, 82b, 83a) assume a knowledge of calculus at the level taught in MATH 10a.

Analysis of the behavior of economic units within a market economy. Emphasis upon individuals' decisions as demanders of goods and suppliers of resources, and firms' decisions as suppliers of goods and demanders of resources under various market structures. Usually offered every semester. Staff

ECON 82b Macroeconomic Theory

Prerequisites: ECON 8b. ECON 80a and 83a would be helpful.

Models of the determination of economic aggregates—such as national income, consumption, investment, government spending, exports, imports, and international capital flows—and economywide variables—such as the interest rate, the exchange rate, the price level and inflation, and the unemployment rate. The influence of fiscal and monetary policies on these aggregates and variables is examined. Usually offered every semester. Staff

ECON 83a Statistics for Economic Analysis qr ss

Prerequisite: ECON 2a.

A first course in statistical inference. Topics include descriptive statistics, probability, normal and binomial distributions, sampling distributions, point and interval estimation, properties of estimators, hypothesis testing, regression, and analysis of variance. Usually offered every semester. Staff

ECON 98a Independent Study

Signature of the instructor required. Does not meet the requirement for the major in economics.

Normally available for a student who has taken a course and wishes to pursue further reading or research in that field or study a subject not listed among the department course offerings. Usually offered every year. Staff

ECON 98b Independent Study

Signature of the instructor required. Does not meet the requirement for the major in economics.

See ECON 98a for course description. Usually offered every year.

Staff

ECON 99a Senior Research

Signature of the instructor required. Does not meet the requirement for the major in economics.

A senior whose grade point average in economics courses is 3.50 or above may petition to be admited to the Senior Honors Program and to enroll in this course. Usually offered every year. Staff

ECON 99b Senior Thesis

Prerequisite: Satisfactory completion of ECON 99a. Signature of the instructor required. Does not meet the requirement for the major in economics. Normally seniors who wish to complete a Senior Honors Thesis enroll in this course. Usually offered every year. Staff

(100-199) For Both Undergraduate and Graduate Students

ECON 129a Economics for the New Economy ss]

Prerequisites: ECON 80a and ECON 82b. A study of the economic issues particular to the "new economy," within the framework of economic theory. Topics include causes and consequences of increasing returns, productivity and economic growth, skillbased technological progress and the wage gap, network economics, and human capital. The objective is to enable a student to use economic theory to understand these issues. Usually offered every year. Mr. Subramanian

ECON 134b Public Sector Economics

ss Prerequisite: ECON 80a.

The effect of tax and expenditure policies on economic efficiency and equity. Topics include externalities and public goods, public choice, cost-benefit analysis, income redistribution, social security, and health care. Also discussion of U.S. tax system, public debt, and state and local finance. Usually offered every year. Mr. Dolbear

ECON 135a Industrial Organization [qr ss]

Prerequisite: ECON 80a.

Microeconomic analysis of firm behavior under alternative market structures and implications for market outcomes. Topics include strategic interaction, entry and exit, collusion, predation, price discrimination, product differentiation, vertical relations, imperfect information, advertising, and patents and innovation. Usually offered every year. Staff

ECON 141b Technology and the Global Economy

[ss] Prerequisite: ECON 80a.

Technological change as the central focus of modern economies. Topics include changing industrial and international specialization, economics of research and development, innovation, diffusion and technology transfer, appropriability, patents, information markets, productivity, intersectoral effects, and global competitiveness. Usually offered every year. Mr. Jefferson

ECON 160a International Trade Theory [ss]

Prerequisite: ECON 80a.

Causes and consequences of international trade and factor movements. Topics include determinants of trade, effects on welfare and income distribution, trade and growth, protection, foreign investment, immigration, and preferential trading. Usually offered every year. Staff

ECON 161a International Finance [ss]

Prerequisites: ECON 80a and 82b. Applications of international economic theory-regarding trade, the balance of payments, investments, and exchange rates-to the management of import/export firms and multinational corporations. Usually offered every year.

ECON 171a Financial Economics

ss Prerequisites: ECON 80a and 83a. May not be taken for credit by students who have previously taken IEF 205a. An introduction to financial economics. Topics include the selection of assets, portfolio choice under uncertainty, equilibrium asset pricing models, the efficient markets hypothesis, futures, and options markets. Usually offered every year. Mr. Subramanian

ECON 172b Money and Banking

ss Prerequisite: ECON 2a. Does not count toward the upper-level elective requirement for the major in economics. Considers the operation of banks and other financial institutions in a money- and capital-market setting. The role of central banks in the control of the quantity of money is examined in relation to the performance of the national economy. Supervision of banks, insurance of deposits, reform of banking legislation, as well as the internationalization of banking are also studied. Usually offered every second year. Staff

ECON 174a Corporate Finance ss

Prerequisite: ECON 80a. Corequisite: ECON 171a. May not be taken for credit by students who are currently or have previously taken FIN 202a (formerly IEF 210b).

An introductory course in corporate finance and financial management. Covers the theory and application of capital budgeting techniques and capital structure choice of firms. Usually offered every year. Ms. Bulan

ECON 175a Introduction to the Economics of Development

[ss]

Prerequisite: ECON 2a or permission of the instructor. May not be repeated for credit by students who are currently or have previously taken ECON 75a. Does not count toward the upper-level elective requirement for the major in economics. An introduction to various models of economic growth and development and evaluation of these perspectives from the experience of developing and industrial countries. Usually offered every year. Mr. Jefferson

ECON 176a The Household, Health, and Hunger in Developing Countries [ss]

Prerequisites: ECON 80a is required and ECON 175a is recommended. Primarily recommended for juniors and seniors. Examines aspects of poverty and nutrition that are confronted by households in lowincome countries. Examines these issues primarily from a microeconomic perspective, although some macroeconomic angles are explored as well. Usually offered everv vear. Ms. Menon

Staff

ECON 177b Economic Regulation and Deregulation

Prerequisite: ECON 80a. Rate regulation of natural monopolies, antitrust regulation of horizontal and vertical mergers and contracts, and the deregulation movement. Focus on the peakload pricing problem, vertical restraints, and case histories of airlines and savings and loan institutions. Usually offered every third year.

Mr. Jaffe

ECON 178b Monetary and Fiscal Policy -Theory and Applications [ss]

Prerequisites: ECON 82b and 83a. Studies the relation of monetary and fiscal policy to inflation, to aggregate employment, and to the financing of the public sector. Explores both the theoretical debates and the practical issues faced by policy makers. The theoretical analysis is applied to several contemporary and historical developments including the economic expansion of the 1990s, the financial crises in developing economies, inflation targeting, credit channels and the implications of the Euro. Usually offered every year. Mr. Salman

ECON 181b Game Theory and Economic Applications

[ss] Prerequisites: ECON 80a, ECON 83a, MATH 10a or equivalent. Analysis of decision making in multiperson settings. Studies models of equilibrium and various kinds of games under perfect and imperfect information. The applications include competition, auctions, voting, risk sharing, bargaining. Usually offered every year. Mr. Bahceci

ECON 184b Econometrics

[qr ss]

Prerequisites: ECON 80a, 82b, and 83a. An introduction to the theory of econometric regression and forecasting models, with applications to the analysis of business and economic data. Usually offered every year. Ms. Menon

Cross-Listed Courses

AAAS 60a

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Economics of Third World Hunger

BUS 6a Financial Accounting

BUS 10a Functions of Capitalist Enterprise

BUS 70a Business in the Global Economy

BUS 75a Issues in Business and Management

HS 104b American Health Care

HS 110a Wealth and Poverty

Interdepartmental programs in

Education

Objectives

Four central themes define the Brandeis Education Programs. These themes are woven throughout our courses.

Knowing Students as Learners: Good teachers work actively to know their students as individuals and learners. They use their knowledge of child development and learning, and their knowledge of individual students, to inform their planning and teaching. They modify their instruction to support students' academic learning and social progress.

Teaching for Understanding: The Brandeis Education Program strives to prepare teachers who narrow the achievement gap among students through the use of standards-based, learningcentered curricula. Good teachers communicate high standards and expectations for student learning, and draw on a repertoire of approaches, using instructional strategies to make knowledge accessible and interesting to diverse learners. They check for understanding and use multiple forms of assessment, including performance assessments, to guide planning and instruction.

Inquiry: Effective teachers continually assess and reflect on their own teaching practices and stay aware of current resources and information related to teaching and learning. Teachers need to have a firm grounding in educational research, theory and practice, and understand the ways in which inquiry and reflection on research, including their own classroom research, can inform practice.

Courses of Study: Minors Master of Arts in Teaching

Social Justice: Issues of social justice and injustice affect schools. Teachers need to work toward greater equity and access to knowledge for all students, while creating multicultural, democratic classrooms that celebrate respect and diversity.

For a more complete description of the Education Program consult the program's website, www.brandeis.edu/programs/education.

Undergraduate Education Program Minor

The undergraduate education program leading to licensure is designed to prepare undergraduates for teaching at the preschool, elementary, and secondary levels, and is taken in addition to the student's major. It is also valuable for those planning careers in related fields such as special education. Students who complete the elementary, middle or high school program may be recommended by Brandeis for Massachusetts licensure.

Students who want to be licensed to teach in Massachusetts must pass a Massachusetts Communication and Literacy Skills Test, and demonstrate subject matter knowledge as well. Of the students who completed the Education Program and who took these tests in 2002-03, 100% passed the Communications and Literacy Skills test and 88% passed the Subject Matter Knowledge tests.

Undergraduate Education Studies Minor

The education studies minor is designed for students seeking an understanding of some of the diverse issues related to education in the United States and other societies. This minor examines issues in education theory, research, and practice within a general liberal arts perspective. The goals are to enable students to investigate educational history and policy, human learning and development, and/or the place of education and schooling in families and societies, from a variety of disciplinary perspectives. The minor's interdisciplinary approach will enable students to examine the impact of political, historic, psychological, economic, and social forces that shape education and public expectations for schools.

The education studies minor encourages students to think critically and creatively about questions such as: How can we better understand and guide learning? How do various political, economic and social forces shape education and public expectations for schools? What kinds of cultural understandings form the basis for educational expectations and school systems? What kinds of learning, schools, and teachers do young people need and deserve?

This minor is suitable both for students interested in the broad social and cultural contexts of education and for those interested in educational careers. Please note, however, that the Education Studies minor does not lead to a teaching license. Students interested in becoming licensed as teachers need to enroll in the Education Program that leads to licensure.

Master of Arts in Teaching (Elementary)

The M.A.T. (Elementary) is designed to offer preparation for teaching in public elementary schools or Jewish elementary day schools. This 14-month program integrates theory, research, and practice; it begins with a summer session, includes a year of academic study and an internship in classrooms, and concludes with an additional second summer. M.A.T. students study children's development; teaching inquiry-based mathematics, science, and balanced literacy programs; and the challenges and benefits of teaching within a standards-based environment. Students focus on the need to connect their class to the school, their school to the community, their community to a surrounding society, and their children to the world at large. Students are clustered for nine-month internships in public elementary or Jewish day schools in the Boston area. Students develop a classroom research project about a challenge in teaching and learning, and later participate in a culminating "Teacher Research Colloquium.

Induction: M.A.T. graduates who pass the Massachusetts Tests for Educator Licensure (MTEL) examinations and whose initial teaching program is in the Boston area are supported in their critical first year of teaching through an induction program. Master teachers mentor and coach new graduates, who attend monthly meetings that support reflection and provide a forum for continued professional development. Supporting new graduates in this way provides essential support for these new teachers as well as to the schools that hire Brandeis teacher candidates.

How to Become a Minor

Education Program

Any undergraduate at Brandeis can begin fulfilling requirements of the minor at any time, without formal admission. A grade of at least B- is required in ED 100a and ED 107a for those pursuing elementary licensure; and in ED 100b for those seeking secondary licensure. Permission of the director is required for the final stage of the process (ED 101a and b, ED 105a and ED 111e; or ED 102a, ED 104a and ED 110e; or ED 112e). Students must pass the Massachusetts Communication and Literacy Test before enrolling in the Practice Teaching courses.

Education Studies

Any undergraduate enrolled at Brandeis can begin fulfilling requirements of the minor at any time, without formal admission. A grade of at least B- is required in each course taken for credit in the minor. Pass/Fail courses are not allowed. Permission of the director is required to enroll in the education studies minor, and should be sought no later than when a student has completed the two core courses.

How to Be Admitted to the Graduate Program

The general requirements for admission to the Graduate School, given in an earlier section of this *Bulletin*, apply to candidates for admission in this area of study. Applications should include three letters of reference, the results of the General Graduate Record Examination, a transcript of your undergraduate work, and a personal statement describing your interest in the field of education. After initial review of applications, potential candidates may be invited to Brandeis for a personal interview.

Partial scholarship assistance is available for a limited number of exceptional applicants.

Program Committee

Joyce Antler (American Studies)

Marc Brettler (Near Eastern Jewish Studies)

John Burt (English and American Literature)

Joseph Cunningham (Psychology)

Jane Hale

(Romance and Comparative Literature)

Andrew Hahn (The Heller School)

Robert Lange (Physics)

Paul Monsky (Mathematics)

Joseph Reimer (Hornstein Program)

Susan Shevitz (Hornstein Program)

Daniel Terris (International Center for Ethics, Justice and Public Life)

Faculty

Marya Levenson, Director Teacher education. Education policy. Education studies.

Dirck Roosevelt, Director of the MAT/ Assistant Director Elementary education. Teacher education.

Marcie Abramson Mathematics.

Robin Dash Arts and Education.

Sharon Feiman-Nemser

Elementary education. Jewish education. Teacher education. **Tom Heyman** Elementary Science.

Jon Levisohn

Philosophy of education. Jewish education.

Catherine Marchant Preschool education.

Edward Rossiter

Secondary curriculum and instruction.

Theodore Sizer Public education.

Deborah Sullivan Reading and Literacy.

Requirements for the Minors

Education Programs Leading to Licensure

Secondary

PSYC 36b (note that PSYC 1a is a prerequisite for PSYC 36b), ED 100b (sophomore year), and ED 102a (junior year), are prerequisites for practice teaching. ED 104a and ED 110e are taken in the senior year or ninth semester. Students must consult the director of the program for other requirements.

It is recommended that students take ED 100b in their sophomore year and ED 102a in their junior year. Students must pass the Massachusetts Communication and Literacy Skills Test before enrolling in ED 110e.

Elementary

PSYC 33a (note that PSYC 1a is a prerequisite for PSYC 33a); ED 100a followed by ED 107a (sophomores who have taken ED 100a are advised to take ED 107a as juniors); ED 101a and b and ED 105a, always begun the semester before practice teaching; and ED 111e. Also a mathematics course at the 5a level or above or a satisfactory score on a special test given by the mathematics department. Students must consult the assistant director of the program for other requirements. The Education Program website lists significant additional liberal arts courses required for licensure by the Massachusetts Department of Education. Students must pass the Massachusetts Communication and Literacy Skills Test before enrolling in ED 111e.

Preschool

Practice teaching at the Lemberg Children's Center is possible (ED 112e). Prerequisites are PSYC 33a and ED 103a. These courses, plus one other, will fulfill the Massachusetts Office of Child Care Services requirements for teachers in nursery school or day care. For further information, consult the director of the Lemberg Children's Center.

Education Studies

A. Core Course: ED 155b Education and Social Policy

B. A second core course to be selected from the following electives:

AMST 180b	Topics in the History of American Education
COML 165a	Reading, Writing, and Teaching across
	Cultures
ECON 59b	Introduction to the Economics of Education
ED 157b	Psychology of Student Learning
ED 158b	Creative Inquiry, Critical Analysis
ED 159b	Philosophy of Education
SOC 104a	The Sociology of Education

C. At least four additional program electives, no more than two of which can be taken in the same department or interdepartmental program. Program electives are listed below under "Elective Courses".

Students may substitute successful completion of an essay, thesis, or internship, as described below, for the sixth elective course option:

1. Essay: an approved research or honors essay, usually taken in the senior year. Students would receive credit for this essay through their department major, or ED 98a (Individual Readings and Research in Education), or an independent study or research course approved by the Director of the Education Program.

2. Honors Thesis: a senior thesis in the student's major that has an emphasis on some aspect of education.

3. Internship: an internship (ED 92) approved by the Director of the Education Program. (Students who are doing student teaching in the Education Program will also be eligible to receive internship credit if they are concurrently pursuing an Education Studies minor.) Students who choose this option will keep a journal about their experiences and produce a final paper.

D. Students must achieve a grade of B- or higher in each course taken for credit in the minor. (Pass/Fail courses are not allowed).

E. Students may have only two cross-over courses that meet requirements for both the Education (licensure) minor and the Education Studies minor.

Requirements for the Degree of Master of Arts in Teaching (Elementary)

This program has a 14-month residency requirement, including an internship in an elementary school. Students are expected to be full time in the M.A.T. (Elementary) program. The M.A.T. program combines academic study at Brandeis with a nine-month internship in public elementary or Jewish day schools in the Boston area. M.A.T. students are part of a professional learning community that includes a cohort of students who move through the program together, as well as a team of University faculty and classroom practitioners who share common objectives, expertise, and clear expectations for M.A.T. student achievements.

The course offerings for the public elementary and Jewish day school concentrations include:

Public School Concentration

Summer One		
ED 107a	Teaching and Learning Reading in Elementary Schools	
ED 157b	The Psychology of Student Learning	
ED 262a	Teaching Mathematics	
ED 264a	Foundations of Education	
Fall		
ED 101a	Elementary School Curriculum and Teaching:	
ED 265a	Literacy, Social Studies, and other topics Field Internship	
ED 267a	Fundamentals of Teaching	
LD 2074	runaumentaris er reaenning	
Spring		
ED 261a	Inquiry-based Science Teaching and Learning	
ED 265b	Field Internship	
ED 267b	Fundamentals of Teaching	
Summer Two		
ED 260a	Special Education: Teaching for Inclusion	

ED 260a Special Education: Teaching for Inclusion ED 266a Teachers as Researchers

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Jewish Day School Concentration*

Fall

ED 263a	Reflective Teaching
ED 265a	Field Internship

Spring

ED 263b Reflective Teaching ED 265b Field Internship One Jewish Studies course

Summer Two

ED 260a Special Education: Teaching for Inclusion ED 266a Teachers as Researchers One Jewish Studies course

*In 2004-05, the M.A.T. program will accept into the Jewish day school concentration only those students who have completed the DeLeT program. The following DeLeT courses will be accepted for credit in the M.A.T. program: Teaching Mathematics, Teaching Elementary Reading, Jewish Child as Learner, and one Jewish studies course.

Internship/Field Experience

Students are placed in cohorts in area public and Jewish elementary schools, in districts such as Waltham, Newton, Watertown, Framingham, Weston, Belmont, Wellesley, Boston, and Providence (RI). The field experience is supported by regular mentoring from school personnel and a weekly reflective teaching seminar that examines such topics as curriculum development, classroom environment, teaching strategies, and assessment.

Inquiry

In the spring semester, M.A.T. students begin an inquiry project that requires development of some kind of classroom research about a challenge in teaching and learning. Graduating students participate in a culminating Teacher Research Colloquium in which they present their projects to faculty, friends, and colleagues.

Induction

M.A.T. graduates whose initial teaching positions are in the Boston area are supported by mentor/coaches in their first year through an induction program managed by Brandeis. New graduates also attend monthly meetings that support reflection and provide a forum for continued professional development.

Courses of Instruction

(1-99) Primarily for Undergraduate Students

ED 92a Education Internship and Analysis Usually offered every year. Staff

ED 92b Education Intership and analysis Usually offered every year. Staff

ED 98a Individual Readings and Research in Education

Usually offered every year. Staff

ED 98b Individual Readings and Research in Education

Usually offered every year. Staff

(100-199) For Both Undergraduate and Graduate Students

ED 100a Exploring Teaching (Elementary) [ss]

Not open to first year students. Examines the relationship of teaching and learning, the purposes of elementary schooling, and the knowledge requirements for elementary school teaching. Through readings, analysis of videotapes, and guided observations, students investigate classroom culture, student thinking, and curriculum standards. Three hours per week of participant observation in an elementary classroom are required. Usually offered every fall semester. Ms. Feiman-Nemser

ED 100b Exploring Teaching (Secondary)

Not open to first year students. Examines the relationship of teaching and learning, the purposes of secondary schooling and the knowledge requirements for middle and high school teaching. Through readings, analysis of videotapes and guided observations, students investigate classroom culture, student thinking, and curriculum standards. Three hours per week of participant observation in a secondary classroom are required. Usually offered every spring semester. Ms. Levenson

ED 101a Elementary School Curriculum and Teaching: Literacy, Social Studies, and Other Topics

[ss] Limited to students enrolling in ED 111e spring semester. Signature of the education program director or assistant director required.

Focuses on principles and effective procedures for teaching literature and social studies in elementary classrooms. Emphasizes the cognitive, social, and cultural dimensions of literacy learning as well as strategies for reading and writing nonfiction, and critical approaches to the teaching of social studies. Usually offered every year.

Ms. Sullivan and Staff

ED 101b Elementary School Curriculum and Teaching: Literacy, Social Studies, and Other Topics [ss]

Limited to students enrolling in ED 111e spring semester. Signature of the education program director or assistant director required.

Focuses on principles and effective procedures for teaching elementary students. Examines how art, creative drama, multicultural education, special education, and physical education affect teaching and learning.Usually offered every vear.

Ms. Sullivan and Staff

ED 102a Secondary Curriculum, Instruction and Assessment

[ss]

It is strongly recommended that juniors who are planning to student teach (ED 110e) in their senior year enroll in ED 102a in their junior year. ED 102a is a prerequisite for ED 110e. Signature of the education program director required. Principles of curriculum, instruction, and assessment in secondary schools. Two hours per week of participant observation in a secondary classroom are required. Usually offered every fall semester. Mr. Rossiter

ED 103a Teaching Strategies for Early Childhood

[ss]

Provides classroom experience, principles, and methods for teaching young children. Students plan and analyze early childhood learning experiences, based on current theory and best practices, as well as study positive approaches to classroom management and developmentally appropriate curricula. Related field placement required, once a week, at Lemberg Children's Center, 8:00 am-12:00 pm or 2:00-6:00 pm. Usually offered every spring semester. Ms. Marchant

ED 104a Secondary School: Theory into Practice

Must be taken concurrently with ED 110e. Principles and methods of teaching in specific subject areas in secondary schools. Usually offered every fall semester. Ms. Levenson and staff

ED 105a Elementary School Curriculum and Teaching: Mathematics and Science [ss]

Limited to students enrolling in ED 111e spring semester. Must be taken concurrently with ED 101a in the fall semester.

Principles and strategies of teaching mathematics and science in elementary classrooms. Emphasizes understanding mathematical and scientific concepts needed by elementary teachers, effective teaching procedures, and recommended materials. Usually offered every year. Ms. Abramson and Mr. Heyman

ED 107a Teaching and Learning Reading in Elementary Schools

Examines theories and methods of teaching reading and language arts to children in elementary schools. Emphasizes competencies necessary for developmental reading. Explores strategies for literacy, including the interrelated aspects of writing and spelling. Requires a field experience of 15 hours. Usually offered every year. Ms. Sullivan

ED 110e Practice Teaching: Secondary School

[ss] Prerequisites: ED 102a (must be taken the year before ED 110e) and ED 104a (must be taken concurrently with ED 110e). Enrollment limited to students in the education program. Students must pass the Massachusetts Communication and Literacy Skills Test before enrolling in ED 110e.

Full-time student teaching under supervision of qualified teachers; regular conferences to discuss and evaluate the teaching experience. Includes at least one after-school meeting most weeks, covering such topics as multicultural education, special education, and reading. Usually offered every fall semester. Staff

ED 111e Practice Teaching: Elementary School

[ss]

Prerequisites: ED 101a, ED 101b, ED 110e, ED 105a, and ED 107a. Enrollment limited to students in the education program. Students must pass the Massachusetts Communication and Literacy Skills Test before enrolling in ED 111e. Full-time student teaching under supervision of qualified teachers; regular conferences to discuss and evaluate the teaching experience. Includes at least one after-school meeting per week. Usually offered every spring semester. Mr. Roosevelt

ED 112e Practice Teaching: Preschool

Prerequisites: PSYC 33a and ED 103a. Enrollment limited to students in the education program. Signature of the education program director required. Teaching under supervision of qualified head teachers at the Lemberg Children's Center with toddlers, preschoolers, and kindergartners. Thirty-five hours per week includes 30 hours teaching, five hours planning and meeting time. Regular conferences to discuss and evaluate the teaching experience. Usually offered every year. Staff

ED 155b Education and Social Policy [ss]

Examines the various functions schools perform in a community, with special attention to the intended and unintended consequences of contemporary policies such as special education, desegregation, charter schools, and the standards/accountability movement. Usually offered every year. Ms. Levenson

ED 157b The Psychology of Student Learning

[ss] How do children learn? Topics in this survey course include models of learning, cognitive and social development, creativity, intelligence, character education, motivation, complex reasoning, and learning disabilities. Course methods include contemporary research analyses,

case studies, group projects, short lectures, and class discussions. Staff ED 158b Creative Inquiry, Critical Analysis

Does not satisfy a school distribution

requirement—for education studies core course credit only.

Inquiry and exploration in the visual arts have the capacity to develop the creative problem solving essential to both teaching and learning. Students will work in different media, examine interpretations of art, reflect in journals, and teach children about contemporary art at the Rose Art Museum. Students will complete a 12-hour practicum as part of this course. Usually offered every year. Ms. Dash

ED 159b Philosophy of Education

Explores several major issues in philosophy of education through close examination and discussion of recent theoretical texts. Issues include the goals of education; the rights of the state to foster civic virtue; multiculturalism; moral education, the problem of indoctrination; education for autonomy, rationality, critical thinking, and open-mindedness. Usually offered every second year. Mr. Levisohn (200 and above) Primarily for Graduate Students

ED 260a Special Education: Teaching for Inclusion

Examines specific learner characteristics of students with disabilities as well as modifications (program, instructional, environmental) and strategies that facilitate a more successful learning experience for these students. Usually offered every summer. Staff

ED 261a Inquiry-Based Science Teaching and Learning

Open only to M.A.T. students. Focuses on the learning and exploration of scientific concepts and strategies needed to teach inquiry-based science in elementary classrooms. Usually offered every year. Mr. Lange

ED 262a Teaching Mathematics in Elementary Classrooms

Open only to M.A.T. students. Focuses on the learning, discovery, and exploration of the skills and strategies needed to teach mathematical concepts and skills in elementary school classrooms. Usually offered every summer. Staff

ED 263a Reflective Teaching

Open only to M.A.T. students. A weekly seminar closely coordinated with the Internship in Elementary Teaching (ED 265d). Students explore and evaluate approaches to classroom organization and management, instructional planning, and assessment. They form habits of critical colleagueship and develop skills to study their teaching and their students' learning. Students also assemble a teaching portfolio that documents their learning in relation to program standards. Usually offered every year.

Ms. Feiman-Nemser

ED 263b Reflective Teaching

Open only to M.A.T. students. A weekly seminar closely coordinated with the Internship in Elementary Teaching (ED 265d). Students explore and evaluate approaches to classroom organization and management, instructional planning, and assessment. They form habits of critical colleagueship and develop skills to study their teaching and their students' learning. Students also assemble a teaching portfolio that documents their learning in relation to program standards. Usually offered every year.

Ms. Feiman-Nemser

ED 264a Foundations of Education *Open only to M.A.T. students.*

Explores the philosophical, sociological, historical, and political perspectives of elementary schools in the United States, including legal issues and concerns, teaching concerns, and current issues and trends. Emphasizes curriculum theory and the link between the developing child and instruction. Usually offered every summer. Staff

ED 265a Field Internship (Elementary)

Open only to M.A.T. students. The first semester of the internship in elementary classroom teaching; designed to help connect theory and practice. Students gradually build proficiency in teaching, adding responsibilities and skills over time. Students have guided opportunities to observe, plan, and teach core subjects, to manage classrooms, to get to know students and families, and to participate fully in the life of the school. Interns receive regular mentoring from school and University personnel. Staff

ED 265b Field Internship (Elementary)

Open only to M.A.T. students. The second semester of the internship in elementary classroom teaching; designed to help connect theory and practice. Staff

ED 266a Teachers as Researchers

Open only to M.A.T. students. Besides discussing examples of teacher research, students design and carry out an investigation or plan of action addressing a question or problem arising in their practice. Students present their inquiry projects to fellow students, mentor teachers, and faculty in a Teacher Research Colloquium held during the summer session. Usually offered every year. Ms. Feiman-Nemser

Electives

Note: Education studies minors will be required to focus their independent research and writing in any of the following courses on educational topics.

AMST 150a The History of Childhood and Youth in America

AMST 180b Topics in the History of American Education

ANTH 61b Language in American Life

COML 165a Reading, Writing, and Teaching across Cultures

ECON 59b The Economics of Education

ED 100a Exploring Teaching (Elementary)

ED 100b Exploring Teaching (Secondary)

ED 103a Teaching Strategies for Early Childhood

ED 155b Education and Social Policy

ED 157b The Psychology of Student Learning

ED 158b Creative Inquiry, Critical Analysis

ED 159b Philosophy of Education

HIST 153a

Americans at Home: Families and Domestic Environments, 1600 to the Present

HS 373a

Minority Children and Families

HS 544a Vulnerable Youth: Policy and Programmatic Responses

HS 549a Gender, Work, and Family Policy HSSP 192b Sociology of Disability

JCS 215a The Developing Learner in a Jewish Educational Setting

JCS 235a The Culture of Jewish Educational Settings

JCS 236a Teaching and Learning in Jewish Classrooms

LING 197a Language Acquisition and Development

NEJS 163b Teaching American Jewish History

PAX 186a Introduction to Intercommunal Coexistence

PHIL 148b Philosophy of the Humanities

PHYS 22a The Science in Science Teaching and Learning

PSYC 33a Developmental Psychology

PSYC 36b Adolescence and the Transition to Maturity

PSYC 169b Disorders of Childhood

SOC 104a Sociology of Education

SOC 108a Youth and Democracy

SOC 154a Community Structure and Youth Subcultures