

# Guidance for Double Majors

Economics Department, College of Wooster

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The Economics Department has a pluralist mission. Therefore, we welcome connections to other ways of knowing. Motivated students should work closely with their academic adviser to explore potential connections to minors, majors and pathways. In practice, Economics is an excellent complement to any field. Below is guidance on the most popular double major/minor combinations in alphabetical order. Again, this is not a complete list of possible combinations. We encourage innovation. For example, in recent history, we have seen double majors in with Dance, Music, English, and Biology to name a few.

## Economics with Computer Science

Computational Economics is a growing field. Computer science has become increasingly important for economists working with big data to address complex questions. Students interested in learning about computational mechanism design with applications to economics are ideal candidates to combine these two majors. Students could consider these courses in computer science (CSCI).

1. CSCI 10000: Scientific Computing or CSCI 10200: Multimedia Computing
2. CSCI 11000: Imperative Problem Solving
3. CSCI 12000: Data Structures and Algorithms
4. CSCI 21000: Principles of Computer Organization or CSCI 21200: Operating Systems
5. CSCI 22000: Theory of Computation or CSCI 22200: Programming Languages

## Economics with Mathematics

Students who are considering graduate work in Economics are strongly encouraged to take courses in Mathematics to complement your Economics electives. Here is a list of recommended MATH courses:

1. The Full Calculus sequence: In addition to the required MATH 105, MATH 110 Applied Differential Calculus, Math 115 Theory of Differential Calculus, MATH 120: Applied Integral Calculus, and MATH 125: Theory of Integral Calculus
2. MATH 21100: Linear Algebra
3. MATH 21200: Multivariate Calculus

PhD in Economics or Finance	Graduate work in Applied Economics
MATH 21500: Transition to Advanced Mathematics MATH 33200 - Real Analysis I MATH 33300 - Real Analysis II	MATH 22700 - Operations Research MATH 22900 - Probability and Statistics I MATH 32900 - Probability and Statistics II

### A note

Students that plan to take MATH 22900 and MATH 32900 should know that this sequence can be substituted for the ECON 11000 and ECON 21000 requirement in Economics by petition to the Chair of Economics. However, the Economics sequence does not count for the MATH requirement. ECON 21000, is not the same course as MATH 32900. ECON 21000 is an applied statistics course that additionally covers econometrics techniques not covered in MATH 329. Also, students get exposure to statistical software packages like STATA in ECON 21000. The appropriate course of action will depend on your career goals.

### Economics with Statistical and Data Sciences

The Economics program has a long history of requiring strong training in statistical and empirical methods. This is why we require ECON 11000 Quantitative Methods and ECON 210 Econometrics before you complete your senior thesis. The Statistics and Data Sciences major is a complement for students who hope to pursue careers that require more quantitative training. Recommended courses include,

1. DATA 10200: Intro to Statistics (Cross listed with ECON 110 Quantitative Methods)
2. MATH 110 and MATH 120
3. DATA 20100: Data Visualization
4. DATA 23100: Applied Statistical Methods

### A note

Students that plan to take DATA 10200 and DATA 23100 should know that this sequence can be substituted for the ECON 11000 and ECON 21000 requirement in Economics by petition to the Chair of Economics. MATH 10200 and ECON 11000 are the same techniques but applied to different contexts. ECON 21000, is not the exact same course as DATA 23100. ECON 21000 covers econometric techniques not covered in DATA 231. Also, students get exposure to statistical software packages like STATA in ECON 21000, while DATA 23100 exposes students to R. The appropriate choice of courses will depend on your career goals.

### Economics with Philosophy

Economics and Philosophy are intimately connected by origin. Students pursuing this combination are typically trying to approximate a Politics, Philosophy, and Economics (PPE) or a Philosophy Economics and Law degree that has been popular at Cambridge. In addition to taking ECON 20500 History and Philosophy of Economic Thought and ECON 263 Law and Economics, we encourage students to consider any combination of the following courses.

1. PHIL 10000 - Ethics, Justice, and Society
2. PHIL 21000 - Jurisprudence: Law & Society
3. PHIL 22000 - Logic & Philosophy
4. PHIL 25100 - Rationalism & Empiricism
5. PHIL 30200 - Epistemology: Rationality & Objectivity
6. PHIL 31003 - Marx's Das Capital

### Economics with Political Science

Student wanting to combine their Economics interests with Political Science would benefit from early conversations with advisers in both departments.

### Economics with Psychology

Students interested in Behavioral Economics often combine these two majors. In addition to taking ECON 325 Agency in Economics, students are encouraged to take the following courses.

1. PSYC 10000 - Introduction to Psychology
2. PSYC 23000 - Human Neuropsychology
3. PSYC 32200 - Memory & Cognition
4. PSYC 32300 - Behavioral Neuroscience
5. PSYC 32400 - Cognitive Neuroscience

Students can petition the Chair of Economics to have PSYC 25000 - Intro to Statistics & Experimental, Design count as substitute for ECON 11000.

### Environmental Studies, Global and International Studies, Urban Studies, Women's Gender and Sexuality Studies

Economics contributes courses to these interdisciplinary majors. Double majors in the above list are only possible between WGSS and ES and require significant planning. We recommend early conversations with advisers for student who want to combine their interests in these areas with Economics.