Preliminary Version September 10, 2019
To be Updated mid-September

This handbook describes the economics department’s junior independent work (JIW) program and includes requirements and guidelines for the preparation of a prospectus and junior paper. You are expected to be familiar with its contents. It will answer many of your questions and will help you avoid misunderstandings as you prepare your paper. If you are uncertain about any aspect of the program, please contact:

Christina Lipsky
Undergraduate Program Manager
114 JRRB
lipsky@princeton.edu
Questions on forms & surveys; Collects and distributes grades & comments

Jonathan Gao
JIW organizer
jygao@princeton.edu
Attendance-related questions

Your faculty advisor and AI
Research-related questions (assigned in late September)

Professor Kelly Noonan
JIW faculty director
222 JRRB
knoonan@princeton.edu
All other questions
Table of contents

1. INTRODUCTION ................................................................................................................................................... 2

2. CLASS LECTURES AND WORKSHOPS ........................................................................................................... 4
   LECTURES ......................................................................................................................................................... 4
   WORKSHOPS ...................................................................................................................................................... 5

3. ADVISING GROUPS AND MEETINGS .............................................................................................................. 8
   REQUESTING AN ADVISING GROUP ............................................................................................................. 8
   ADVISING GROUP MEETINGS .......................................................................................................................... 9
   ONE-ON-ONE MEETINGS .................................................................................................................................. 10

4. FACULTY ADVISORS AND AIS ....................................................................................................................... 11
   FACULTY ADVISORS AND THEIR RESEARCH INTERESTS ............................................................................... 11
   JIW FACULTY DIRECTOR ................................................................................................................................. 13
   JIW ORGANIZER .............................................................................................................................................. 13
   JIW ASSISTANT INSTRUCTORS (AIS) .................................................................................................................. 14

5. IMPORTANT SUBMISSION DEADLINES ...................................................................................................... 14

6. JIW SCHEDULE CLASS OF 2021 ..................................................................................................................... 16

7. GRADING .............................................................................................................................................................. 19
   THE PROSPECTUS ............................................................................................................................................. 19
   THE PAPER ....................................................................................................................................................... 20
   ATTENDANCE .................................................................................................................................................. 22
   PARTICIPATION ................................................................................................................................................ 22
   GRADING WEIGHTS ......................................................................................................................................... 23

8. SUBMISSION REQUIREMENTS ...................................................................................................................... 24

9. EXTENSIONS AND PENALTIES ...................................................................................................................... 24

10. ACADEMIC INFRACTIONS AND ACADEMIC FRAUD ............................................................................ 24

11. A NOTE ON DATA ............................................................................................................................................. 25

12. RESEARCH INVOLVING HUMAN SUBJECTS ............................................................................................. 25

13. JUNIORS STUDYING ABROAD ..................................................................................................................... 25

14. POLITICAL ECONOMY CONCENTRATORS ............................................................................................. 25

15. EXEMPLARY PROSPECTUSES AND JUNIOR PAPERS ........................................................................... 26

A Sample of the Advising Group Request Form is in the back.
1. Introduction

Welcome to the Department of Economics

Juniors in our department undertake a yearlong research project, with two work products to be submitted for a grade. During the fall term, students investigate a topic and write a prospectus for a research project. This prospectus will be due by midnight, Wednesday, December 11, 2019. The junior paper (JP) builds on the prospectus and is written in the spring term. The JP will be due by midnight, Wednesday, April 22, 2020.

How Junior Independent Work is structured

We think of the JP as a scaled-down version of the senior thesis. Students are expected to conduct original research and gain knowledge of the substantive topics they study. However, the JPs are significantly shorter and typically less ambitious than a senior thesis. The focus is on training students how to do research in economics in general, and how to write a senior thesis in particular.

To expose students to common tools that are essential to research in economics, the department offers a comprehensive series of lectures and workshops. Topics of lectures in the fall include (1) introduction to junior independent work (the “kick-off” meeting) (2) Griswold Seminar and (3) literature/data sources. Moreover, there will be lectures on four topics: (1) data sources, (2) writing in economics, (3) data management, and (4) data analysis. The class will be split into five groups for each workshop. Juniors must attend all lectures and four workshops, one in each of the four topics. (Students, who excelled in ECO 313, ECO 312 or ECO 302, may be exempt from the data management and data analysis workshops, if they meet the conditions laid out on pages 5 and 6).

To learn about doing research in a specific area of economics, juniors will be divided into advising groups led by a faculty advisor and supported by an AI. Students with similar interests will be grouped together and assigned to an appropriate faculty advisor. These smaller advising groups will meet periodically throughout the year to discuss specific research topics and to provide feedback on students’ progress. The faculty advisors will also meet individually with students and read and grade student assignments. During 2019/20, we will have 10 groups with 11-12 students per group.

Important logistical information and advice

- **Meeting times:** Most advising group meetings, lectures and workshops will meet on **Mondays or Wednesdays, from 3:00 to 4:20 p.m.** Although there will not be meetings every week, **juniors MUST keep either Monday OR Wednesday at this time free of other commitments during the fall semester.** Grading for JIW is based in part on attendance and participation in these meetings. You will not be excused from meetings because of class conflicts. There will be no restrictions on your spring schedule.

- **Useful courses:** Undergraduate research in economics may be theoretical or empirical, but in practice most junior papers are empirical. Empirical evidence takes a variety of forms, from stylized facts, to descriptive statistics, to statistical regression analyses. Students writing empirical papers are strongly recommended to take ECO 313 (Econometric Applications, offered in spring), and those writing primarily theoretical papers are strongly recommended to take ECO 317 (Economics of Uncertainty, offered in fall) or ECO 418 (Strategy and Information, offered in fall). These courses convey knowledge that is even more important for senior theses, so if at all possible take them now.

- **Read the handbook:** The remainder of this handbook contains detailed information on lectures,
workshops, and advising group meetings. It also includes information on the areas of expertise of the 10 faculty advisors for 2019/20, grading guidelines for JIW, a detailed calendar of meetings and deadlines, and information on the Program in Political Economy (PPE). A sample advising group request form and the PPE application form are at the end. (The actual advising group request will need to be filled online).

- **Use the Blackboard site:** The Blackboard site for JIW will contain the most up-to-date information about JIW. In addition to this handbook, the site will include announcements, times and locations of meetings, sign-up information for workshops, materials from the lectures and workshops, and information relevant for your particular advising group. You are encouraged to check the site frequently throughout the year.

- **First events/deadlines** to watch out for (room info will be added on Master Calendar on Blackboard):

  9/16 (M) or 9/18 (W)  
  Introduction to Junior Independent Work, *Attend ONE of the two lectures*, Noonan, 3-4:20 p.m., room TBA

  9/20 (F), by 4:45 pm  
  Online advising group request form due. A sample survey is in back of this Handbook and on the JIW Blackboard site. E-mail Christina if you have technical/log-in issues.

  9/23 (M)  
  Literature and data sources in economics, Bordelon, 3-4:20 p.m., room TBA

  9/24 (T) by 4:45 p.m.  
  Advising groups posted

  9/30 (M) by 4:45 p.m.  
  Program in Political Economy applications due to Christina Lipsky, 114 JRRB.

**First advising group meeting, 3-4:20 pm., rooms TBA.**

  9/25 (W)  
  Professor Bhatt  
  Professor Boustan  
  Professor Noonan  
  Professor Urgun  
  Professor Zaidi

  9/30 (M)  
  Professor S. Brunnermeier  
  Professor Liu  
  Professor Leung  
  Professor Matray  
  Professor Pei

  10/2 (W)  
  Griswold Seminar, select seniors, 3-4:20, room TBA

  10/7 (M) – 10/18 (F)  
  First one-on-one meeting with your faculty advisor  
  Many advisors use the Web Appointment Scheduling Engine (WASE) for appointments.
2. Class lectures and workshops

Lectures

Lecture 1 – Introduction to independent work in economics (K. Noonan)

This meeting introduces juniors to the economics department and JIW. Professor Noonan will discuss requirements and organizational matters. She will point to characteristics of good prospecti and JPs and give advise on how to find an interesting and feasible research question. Professor Noonan will also briefly talk about research strategies, the typical structure of an economics paper, and IRB (human subjects) issues.

Note: As almost all juniors pursue empirical projects, Professor Noonan’s lecture will focus on empirical work. If there is sufficient interest, Professor Noonan will try to organize an optional meeting for students interested in theory.

Monday, September 16 or Wednesday, September 18, 3:00 to 4:20 p.m., room TBA
Attend ONE of the two lectures.

Lecture 2 – Literature and data sources in economics (B. Bordelon)

Bobray Bordelon, Princeton University’s Economics, Finance and Data Librarian, will teach students how to do literature searches in economics. He will also introduce students to data sources in economics and finance and give a general overview of Princeton’s data holdings. Awareness of the latter is important because it determines the feasibility of your research question.

Monday, September 23, 3:00 to 4:20 p.m., room TBA

Lecture 3 – Griswold Seminar

Wednesday, October 2, 3-4:20 p.m., room TBA

Lecture 4 – Planning for the senior thesis (K. Noonan/B. Bordelon)

This meeting will cover planning for the senior thesis. Topics will include choice of a topic, applying for funding, and finding an advisor. Bobray Bordelon will discuss data issues for senior theses.

Monday, May 4, 3:00-3:50 p.m., room TBA.

Attendance requirement: All students must attend lectures 1 (one of two identical meetings), 2 and 3. Lecture 2 is only offered on a Monday and lecture 3 is only offered on a Wednesday. Students with a course conflict for either Monday or Wednesday can make up a missed meeting by attending two data sources workshops of their choice (see below).
Workshops

Workshop series 1 – Data sources

Bobray Bordelon, Economics and Finance Librarian/Data Services Librarian, bordelon@princeton.edu
Barbara (Bobbi) Coffey, Finance Research Librarian, bcoffey@princeton.edu
Stacy Nemeroﬀ, Labor Librarian, stacyn@princeton.edu

Subject librarians will survey data sources and Princeton’s holdings of various types of data.

1. Health, Crime and Other Socioeconomic Data (Bobray Bordelon)

   Micro-level data are necessary to examine why an individual makes speciﬁc choices. Bordelon will discuss micro-level data for the economic study of areas such as health, crime, art and culture, elections, and social attitudes.

   Monday, October 7, 3:00-4:20 p.m., room TBA

2. Financial Data (Bobbi Coffey)

   Coffey will discuss sources of data for studying ﬁnancial instruments and markets. She will discuss Princeton’s holdings, which are stellar in many areas of ﬁnance but limited in others.

   Monday, October 7, 3:00-4:20 p.m., room TBA

3. Macroeconomics and Trade Data (Bobray Bordelon)

   Most statistical studies make use of some macroeconomic data. Bordelon will discuss sources for domestic and international macroeconomic data and trade data. This workshop is useful for students studying macroeconomic indicators, trade, monetary policy, ﬁscal policy, development, and political economy.

   Wednesday, October 9, 3:00-4:20 p.m., room TBA

4. Labor and Education Data (Stacy Nemeroﬀ)

   Micro-level data for the economic study of labor and education areas will be discussed.

   Monday, October 14, 3:00-4:20 p.m., room TBA

5. Environmental Data (Bobray Bordelon)

   Bordelon will go over environmental data sources and Princeton’s holdings of such data.

   Monday, October 14, 3:00-4:20 pm, room TBA

Attendance requirement: Students attend at least ONE data sources workshop of their choice. Attendance at multiple workshops is encouraged. The info provided is also crucial for your senior theses.
Workshop series 2 – Writing an economics prospectus

Dr. Judy Swan, Associate Director, Writing Program and Vivek Sampathkumar

We will offer seven identical workshops aiming to teach students how to present and discuss information in economics. Topics include how to structure a prospectus, how to introduce a research question, how to present the relevant literature, etc. The workshop will draw on samples of economics prospectuses submitted in prior years.

Monday, November 4, 3-4:20 p.m.,
Advising groups of Professors Brunnermeier and Liu

Wednesday, November 6, 3-4:20 p.m.,
Advising groups of Professors Bhatt and Zaidi

Monday, November 11, 3-4:20 p.m.,
Advising groups of Professors Matray and Pei

Monday, November 11, 7:30-8:50 p.m.,
Advising group of Professor Leung and Boustan

Wednesday, November 13, 3-4:20 p.m.,
Advising groups of Professors Noonan and Urgun

Attendance requirement: Students attend one workshop with their advising group. Students assigned to evening workshops with a conflict: please e-mail Jonathan Gao for placement into an afternoon workshop.

Workshop series 3 – Data management in Stata

Jonathan Gao

We will offer seven identical hands-on workshops designed to teach data management in Stata. These workshops will cover topics such as how to pull data into Stata and how to use basic data manipulation commands (i.e., recording variables, creating new variables, etc.). Please bring your own laptop.

Monday, November 4, 3-4:20 p.m.
Advising groups of Professors Matray and Leung

Monday, November 4, 7:30-8:50 p.m.
Advising groups of Professor Pei and Noonan

Wednesday, November 6, 3-4:20 pm
Advising groups of Professors Boustan and Urgun

Monday, November 11, 3-4:20 p.m.
Advising groups of Professors Brunnermeier and Liu

Wednesday, November 13, 3-4:20 p.m.
Advising groups of Professors Bhatt and Zaidi

Attendance requirement: Students attend one workshop with their advising group. Students assigned to evening workshops with a conflict: please e-mail Jonathan Gao, for placement into an afternoon workshop.
Exemption from attendance: Juniors that completed ECO 313 (with a passing grade) or ECO 312 (with a grade of A- or higher) before their junior year do not need to attend this workshop.

*Workshop series 4 – Data analysis in Stata*

**Vivek Sampathkumar**

These workshops will teach data analysis in Stata. They will cover basic Stata analysis commands such as summarize, tabulate, and regress and also elements of “best practices” in analyzing data (treatment of missing values, sample selection, etc.). This set of workshops will be split into two types: time-series and cross-sectional/panel-data analysis. They will be taught on Mondays and Wednesdays from 3-4:20 pm and 7:30-8:20 pm during the first three weeks of the spring semester.

1. Cross-section and panel-data analysis, M/W, first or second week of spring
2. Time-series analysis, M/W, second or third week of spring

*Attendance requirement:* Juniors need to attend one workshop of their choice. In January students can sign up for one workshop on WASE (net-ID: ecojiw).

Exemption from attendance: Juniors that completed ECO 313 (with a passing grade), ECO 312 (with a grade of A- or higher) and ECO 302 (with a grade of A and higher) before their junior spring do not need to attend this workshop.

**Optional workshops**

*Data and Statistical Services data analysis workshops 101 (optional)*

Oscar Torres-Reyna will offer a set of data analysis workshops for both Stata and R on Fridays between September 27 and October 18, 2019. The sessions are hands-on and intended for beginners. They cover data transfer, data prep, descriptive statistics, and an introduction to data visualization and linear regression. See the JIW workshop page on Blackboard for additional information.

*PU Library workshops – Citing sources (optional)*

Princeton University Library offers workshops on citing sources using bibliographic managers such as Zotero, EndNote and RefWorks. These programs interact with Microsoft Office or LaTeX to automatically format your references and create footnotes, endnotes, and bibliographies in any citation style you choose. You may register at [http://library.princeton.edu/help/citation-tools](http://library.princeton.edu/help/citation-tools).
3. Advising groups and meetings

All juniors will be assigned to an advising group led by a faculty member in Economics and supported by an AI. Faculty members will usually advise on projects close to their larger area of research interests. There will be ten advising groups in 2019/20, with roughly 10 students in each.

Requesting an advising group

After reviewing the list of faculty advisors and their research interests, fill out the online JIW advising group request form no later than 4:45 p.m., Friday, September 20, 2019. Any technical questions on accessing the form should be addressed to Christina Lipsky in 114 JRRB. A sample of this form is included on the very last page of this handbook. Please give your preference for an advising group by indicating your top six choices. If you have a conflict on Mondays or Wednesdays make sure to only list advising groups meeting on the day that you are available. There is space on this form to indicate your areas of research interest and to indicate your proposed JP topic (as best as you can at this stage). Do not worry if you do not have a topic yet. The great majority of students will not have a specific research question at the start of the fall term. Instead, be as specific as you can about your research ideas.

Self matching: Sometimes, juniors with specific research interests approach one of the faculty advisors before the September 20 deadline regarding participation in their group. If a faculty member agrees to take you on, please ask him/her to E-mail to Christina Lipsky, confirming the match before the deadline. These agreements can only be honored if we learn about them before undertaking the matching process. You still need to fill out the form.

Please note that we need to receive your advising group request form in order to place you into an advising group. Students, who complete this form late, are less likely to receive preferred advisors.

Advising group assignments will be made by Professor Noonan and will be posted on Tuesday, September 24 (late in the day) on Blackboard. The first advising group meetings will take place; on Wednesday, September 25, or Monday, September 30. You should schedule a first one-on-one meeting with your advisor no later than October 17, 2019.

We make every effort to match you with your most-preferred advisor/advising group. However, given the distribution of students' research interests relative to those of the faculty advisors, students cannot expect to be placed in one of their top choices. We will do the best we can, given the constraints. All faculty members advising JPs can guide you through the process of writing a JP with sound economic reasoning. You are encouraged to seek out the advice of other faculty members, especially those with expertise in your area of interest, but your advisor alone is responsible for grading. As such, it is important for you to review grading criteria with your advisor.

Sometimes, fortunately quite rarely, your advisor is a total mismatch. If this happens, don’t panic. Talk to Professor Noonan, who will try to make alternative or supplementary arrangements to help you. The deadline for any advising group changes is November 6, 2019. Please let Professor Noonan know about any concerns regarding your advising group/advisor/AI throughout the year.
Advising Group Meetings

Each junior will attend three advising group meetings throughout the year, two during the fall and one during the spring. Advising group meetings will provide opportunities for students to interact and learn from their faculty advisors and from each other. The vast majority of fall advising group meetings will take place on either Mondays or Wednesdays from 3-4:20 pm. However, once advising groups are formed, groups may change to meeting times that are better for the faculty advisor and group members. Meetings in the spring will be arranged by the AIs.

Advising group meeting 1 – Discussion of topic areas

Students will meet their faculty advisor and AI to discuss specific topics in their area of interest, with a focus on which topics are feasible and which are not. Students may be given a reading list of useful review articles that can help them identify specific topics or they may discuss a successful and an unsuccessful prospectus. The advisor may also clarify his or her expectations regarding the outline, prospectus, and JP.

Wednesday, September 25, 3-4:20 p.m.  Professor Bhatt  
Professor Boustan  
Professor Noonan  
Professor Urgun  
Professor Zaidi

Monday, September, 3-4:20 p.m.  Professor S. Brunnermeier  
Professor Liu  
Professor Leung  
Professor Matray  
Professor Pei

Advising group meeting 2 – Discussion of the research prospectus

Students will meet with their advising groups to discuss the research prospectus. Students may be asked to present their draft prospectus and/or to respond to comments they received on their draft. They will receive feedback from the group and instructors.

Monday, December 2, 3-4:20 p.m.  Professor S. Brunnermeier  
Professor Liu  
Professor Leung  
Professor Pei

Wednesday, December 4, 3-4:20 p.m.  Professor Bhatt  
Professor Boustan  
Professor Noonan  
Professor Urgun  
Professor Zaidi

The December meeting for Professor Matray’s group will be held on Tuesday, December 3 from 7:30-8:50 pm. Advisors may choose to hold this second meeting one week earlier. The final date will be discussed with the group.

Advising group meeting 3 – Discussion of junior paper
Students will meet with their advising groups to discuss their progress on their junior paper. Advisors will usually ask students to present their JP draft. To allow for more in-depth feedback, each advising group will be divided into three small groups. Meetings will take place between the 5th and 7th week of spring. AIs will coordinate with students to find appropriate times.

Attendance: Students are required to attend the two fall meetings and one (assigned) spring meeting. (Please note that the JIW grade includes an attendance and participation component. Missing an advising group meeting may negatively impact attendance and participation grades.

One-on-One Meetings

In addition to group meetings, students and their faculty advisor are expected to meet individually at least four times throughout the year. In a first meeting (during the fourth or fifth week of the fall term) advisor and advisee discuss possible topics and appropriate research strategies. In a second meeting (during the seventh to ninth week of the term) faculty advisor will give feedback on the students’ outline and bibliography. During a third meeting at the start of the spring semester, the graded prospectus and next steps can be discussed. A final one-on-one meeting, to take place during the seventh to tenth week, may deal with questions regarding the completion of the final paper. Each group has an AI. AIs are also available for meetings throughout the academic year.

Please note that you can sign up for JIW-related appointments with most advisors on WASE.
4. Faculty Advisors and AIs

Faculty advisors and their research interests

**Swati Bhatt**  
[sbhatt@princeton.edu](mailto:sbhatt@princeton.edu), office: 202B Julis Romo Rabinowitz Bldg.

**Areas of specialization:** Economics of Digitization, Industrial Organization, Finance, Applied Micro  
**Teaching:** Economics of the Internet, Connection and Communication in the Digital Bazar, Industrial Organization, Intermediate Microeconomics

Professor Bhatt’s research centers on the economics of digitization, industrial organization with a focus on the technology industry, and finance. Her recent book, *How Digital Communication Technology Shapes Markets*, explores how digital technology has affected the functioning of markets. Bhatt has advised hundreds of juniors and seniors; and was Director of Student Programs at the Bendheim Center for Finance from 2000-2007. She received her Ph.D. in economics from Princeton.

**Leah Boustan**  
[lboustan@princeton.edu](mailto:lboustan@princeton.edu), office: 256 Louis A. Simpson Bldg.

**Areas of specialization:** Economic History, Labor Economics, Urban Economics  
**Teaching:** Economics of Immigration, Past and Present; Labor Economics

Prof. Boustan’s interests lie at the intersection between economic history, labor economics and urban economics. Her research focuses on the Great Black Migration from the rural south during and after World War II and the mass migration from Europe to the United States in the late 19th and early 20th centuries. Her recent book, *Competition in the Promised Land*, examines the long-lasting effects of the Great Black Migration on labor markets and urban space in receiving cities. Boustan received her Ph.D. in economics from Harvard and was an economics major at Princeton.

**Smita Brunnermeier**  
[smita@princeton.edu](mailto:smita@princeton.edu), office: 228 Julis Romo Rabinowitz Bldg.

**Areas of specialization:** Environmental Economics, Applied Microeconomics  
**Teaching:** Environmental Economics, Issues in Environmental & Natural Resource Economics, Intermediate Microeconomics, Environment and Development

Professor Brunnermeier’s research covers topics in environmental economics. She has studied the costs and benefits of regulating hazardous air pollutants, the effects of environmental regulation on technological innovation and on industry location decisions, voluntary environmental programs, and the links between corporate environmental and financial performance. She has advised hundreds of JIW and senior thesis projects on applied microeconomics topics at Princeton and is the Executive Director of the Undergraduate Program in Economics. Her PhD is from Vanderbilt University.

**Ernest Liu**  
[ernestliu@princeton.edu](mailto:ernestliu@princeton.edu), office 206B Julis Romo Rabinowitz Bldg.

**Area of specialization:** Finance, Economic Growth  
**Teaching:** Corporate Finance

Professor Liu’s research focuses on the implications of weak financial institutions for economic growth, allocation of resources, and economic development. He has done work that uses production network theory to understand industrial policies, specifically the strong government support for upstream industries that are widely adopted in developing economies. His other work shows how
financial market imperfections not only distort economic allocations via underinvestment, but may have much amplifying effects because of the interactions across economic sectors or because the relationships between borrowers and lenders create underdevelopment traps. He received his PhD in Economics from MIT in 2017.

Pauline Leung, pleung@princeton.edu, office: 263A Louis A. Simpson Bldg.

Areas of Specialization: Public Economics, Labor Economics
Teaching: Public Economics

Professor Leung's research focuses on the design of social safety net programs. She has studied how unemployment insurance affects unemployment durations, use of other government programs, and the consequences of these behaviors on social welfare and efficiency. In ongoing work, she is interested in the long-run effects of welfare reform and how the financing structure of Medicaid affects program use and expenditures. She received her Ph.D. in economics from Princeton.

Adrien Matray, amatray@princeton.edu, office: 207 Julis Romo Rabinowitz Bldg.

Areas of specialization: Entrepreneurship and Innovation, household finance, labor economics
Teaching: Corporate Finance; Entrepreneurship, Innovation and Venture Capital

Professor Matray's interests include entrepreneurship, innovation and access to banking services for low-income households. He has done research on the real effects of lending relationships on innovative firms and inventor mobility and on the effect of the whether R&D-intensive firms are more resilient to trade shocks, in particular increased competition from Chinese imports. His current work on the topics involves understanding the frictions affecting entrepreneurship, SME growth and technology adoption and how new technologies affect SME productivity, employment and income growth. These studies are conducted both in developed countries and in developing countries (India and Brazil).

Related to these questions, Adrien studies more broadly the allocation of workers across sectors and geographic areas and how the emergence of “bubbles” can affect the investment in human capital (decision to drop out of high-school, to pursue an undergrad degree) and produce misallocation and affect long term earnings.

His second main line of research is on the determinants and consequences of access to banking services for low-income households. In particular he studies how the supply bank branches affect financial inclusion, how health risk and the expansion of publicly-provided health insurance (Medicaid and “Obamacare”) affect low-income household access to debt and ability to accumulate wealth. Finally, he is currently investigating the existence of potential racial discrimination in the banking sector regarding loan application and the offer of affordable saving products.

Matray holds a Ph.D. in finance from HEC Paris and has previously been a Consultant for the French Ministry of Economic and Finance and for the World Bank.

Kelly Noonan, knoonan@princeton.edu, office: 222 Julis Romo Rabinowitz Bldg.

Areas of Specialization: Health Economics, Family Economics
Professor Noonan’s research focuses on the impact of maternal and child health on family resources and the economics of the family. She is particularly interested in child-policy issues. Noonan has explored the effects of maternal depression on, among others, family food insecurity and family homelessness and the impact of the 2008-11 crisis in Iceland on health behaviors. Noonan holds a Ph.D. in economics from SUNY Stony Brook.

Zhuan Pei  
zpei@princeton.edu, office: 263B Louis A. Simpson Bldg.

Areas of specialization: Labor Economics, Applied Econometrics
Teaching: Labor Economics, Applied Econometrics

Prof. Pei studies the effect and design of social and employment programs, such as cash welfare, Medicaid, and unemployment insurance. He has also conducted research on causal inference and data visualization, particularly in the context of regression discontinuity designs. Prof. Pei received his Ph.D. in economics from Princeton. He is very happy to return to JIW advising, after having worked with three dozen students as a TA in graduate school.

Can Urgun  
curgun@princeton.edu, office: 277 Julis Romo Rabinowitz Bldg.

Areas of specialization: Micro Theory, Game Theory, Organizational Economics, Applied Micro
Teaching: Microeconomic Theory

Prof. Urgun’s areas of research interest are micro theory, game theory and organization economics. He has studied basic principles underlying Sun Tzu’s classic treatise Art of War in a dynamic decision-theoretic model. Another paper examines the effects of patience in ordinary conflicts such as divorce, price wars and commercial litigation. More recent research explores contract manufacturing relationships and the role of costly inspection and money burning activities such as influence activities and bureaucracies in internal capital markets of multidivisional firms. Urgun holds a Ph.D. in managerial economics and strategy from Northwestern University.

Iqbal Zaidi  
izaidi@princeton.edu, office: A26 Julis Romo Rabinowitz Bldg.

Teaching: Macroeconomics, International Monetary Economics, Applied Econometrics

Professor Zaidi’s research covers macroeconomics and financial economics, with a particular focus on econometric estimation of policy-oriented models. He has studied fiscal and monetary policy, structural adjustment in developing countries, financial markets, and financial regulation. Zaidi worked 25+ years in senior positions at the International Monetary Fund before coming to Princeton. He holds a Ph.D. in economics from Princeton University.

JIW Faculty Director

Kelly Noonan  
knoonan@princeton.edu, office: 222 Julis Romo Rabinowitz Bldg.

JIW Organizer

Jonathan Gao  
jygao@princeton.edu
JIW Assistant Instructors (AIs)

AIs will support one advising groups. AIs will attend, participate, and take attendance in all group meetings. They will manage the Blackboard site for their groups and comment on the outline/bibliography, draft prospectus, and draft paper. They will also hold regular office hours. The table below matches faculty members and AIs. It also includes info on the research interests of the AIs.

<table>
<thead>
<tr>
<th>AI</th>
<th>Email</th>
<th>Background</th>
<th>Advising Group (Meeting Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ole Agersnap</td>
<td><a href="mailto:agersnap@princeton.edu">agersnap@princeton.edu</a></td>
<td>Public Finance, IO</td>
<td>Boustan (W)</td>
</tr>
<tr>
<td>Bruno Baranek</td>
<td><a href="mailto:bbaranek@princeton.edu">bbaranek@princeton.edu</a></td>
<td>IO, labor, applied micro</td>
<td>Bhatt (W)</td>
</tr>
<tr>
<td>Anna Belonog</td>
<td><a href="mailto:abelonog@princeton.edu">abelonog@princeton.edu</a></td>
<td>Macro, international macro</td>
<td>Zaidi (W)</td>
</tr>
<tr>
<td>Jonathan Gao</td>
<td><a href="mailto:jygao@princeton.edu">jygao@princeton.edu</a></td>
<td>Public Finance, applied micro, labor</td>
<td>Leung (M)</td>
</tr>
<tr>
<td>Charis Katsiardi</td>
<td><a href="mailto:ck7@princeton.edu">ck7@princeton.edu</a></td>
<td>IO, Labor, Applied Micro</td>
<td>Pei (M)</td>
</tr>
<tr>
<td>Chris Mills</td>
<td><a href="mailto:chris.mills@princeton.edu">chris.mills@princeton.edu</a></td>
<td>Health, labor</td>
<td>Urgen (W)</td>
</tr>
<tr>
<td>Shumiao Ouyang</td>
<td><a href="mailto:souyang@princeton.edu">souyang@princeton.edu</a></td>
<td>Empirical finance and macroeconomics</td>
<td>Noonan (W)</td>
</tr>
<tr>
<td>Hannah Rubinton</td>
<td><a href="mailto:hannah.rubinton@princeton.edu">hannah.rubinton@princeton.edu</a></td>
<td>Macroeconomics, trade</td>
<td>Liu (M)</td>
</tr>
<tr>
<td>Simon Schmickler</td>
<td><a href="mailto:Simon.schmickler@princeton.edu">Simon.schmickler@princeton.edu</a></td>
<td>Finance, IO, labor</td>
<td>Matray (M)</td>
</tr>
<tr>
<td>Alex Wise</td>
<td><a href="mailto:acwise@princeton.edu">acwise@princeton.edu</a></td>
<td>Trade International Macro, Development</td>
<td>Brunnermeier(M)</td>
</tr>
</tbody>
</table>

5. Important submission deadlines

09/20 (F) by 4:45 p.m. Advising group request form due online. Questions to Christina Lipsky.

9/30 (M) by 4:45 p.m. Political Economy applications due. Submit to Christina, 114 JRRB.

10/18 (F) by 11:59 p.m. Outline/bibliography
Students should submit a two-page synopsis of their JP. The bibliography should include at least five annotated references.

11/18 (M) by 11:59 p.m. Draft prospectus

12/11 (W) by 11:59 p.m. Prospectus

Grades and comments will be available from Christina after Dean’s Date upon submission of online mid-year JIW evaluation. Christina will E-mail students as comments/grades become available.
03/27 (W) by 11:59 p.m.   Draft paper

04/22 (W) by 11:59 p.m.   Final JP

Grades and comments will be available from Christina after Dean’s Date upon submission of online final JIW evaluation. Christina will E-mail students as comments/grades become available. (Note: The JP grade is not your overall JIW grade. Please see the section on grading to learn how we calculate the JIW grade).

5/15 (F) by 11:59 p.m.   Senior thesis proposal form due (optional)

All materials (except for the advising group requests, evaluations and the Political Economy application) need to be submitted on Blackboard under assignments by midnight of the due date. Label your file with your last and first name and the last name of your advisor. Please submit the prospectus and JP in PDF format. Make sure your PDF file is not corrupted or otherwise unreadable.
6. JIW Schedule Class of 2021

Please consult Master Calendar on Blackboard (for further room info and updates throughout the year). This version reflects information as of 8/22/2019.

Attendance in all class lectures and advising group meetings is mandatory. In addition, students must attend one workshop each on (1) data sources (please choose most appropriate topic area), (2) writing, (3) data management, and (4) data analysis. Students that excelled in econometrics might be exempt from the data management and data analysis workshops. See below for details.

<table>
<thead>
<tr>
<th>Week</th>
<th>Assignments</th>
<th>Class meetings and workshops</th>
<th>Group and advisor meetings and advisor activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Fall term—first six weeks: Defining a topic</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Class lecture: Introduction to JIW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students attend ONE of two meetings. K. Noonan, 9/16 (M), 3-4:20 pm K. Noonan, 9/18 (W), 3-4:20 pm</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Advising group requests due online by 9/20 (F). Questions to Christina Lipsky. Groups posted on 9/24.</td>
<td>Class lecture: Literature and data in economics, B. Bordelon, 9/23 (M), 3-4:20 pm.</td>
<td>Advising group meeting: Discussion of research area, 3-4:20 pm 9/25 (W)</td>
</tr>
<tr>
<td>3</td>
<td>PPE: applications due by 9/30 (M) to Christina in 114 JRRB</td>
<td>Class Lecture: Griswold Seminar, 3-4:20 pm 10/2 (W)</td>
<td>Advising group meeting: Discussion of research area, 3-4:20 pm 9/30 (M)</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Data sources workshops, 3-4:20 pm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students attend at least ONE data sources workshop of their choice. Health, crime, and other socioeconomic date (Bordelon), 10/7 (M) Finance data (Coffey), 10/7 (M) Macroeconomics and trade data (Bordelon), 10/9 (W) Labor and education micro data (Nemeroff), 10/14 (M) Environmental data (Bordelon), 10/14 (M)</td>
<td>Week 4-5 (10/7-18): One-on-one meetings with students.</td>
</tr>
<tr>
<td>5</td>
<td>Outline/bibliography due on 10/18 (F)</td>
<td></td>
<td>Review/approve outlines/bibliographies.</td>
</tr>
<tr>
<td>6</td>
<td>Outline/bibliography returned on 10/25 (F).</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fall term—second six weeks: Research design and literature review</td>
<td></td>
</tr>
<tr>
<td>7-9</td>
<td>Draft prospectus due on 11/18 (M)</td>
<td>Writing workshops, J. Swan/V. Sampathkumar, 3-4:20 pm, except where indicated Students attend one workshop with their group. Five workshops: 11/4, 11/6 11/11 (3-4:20 pm &amp; 7:30-8:50 pm), 11/13</td>
<td>Week 7-9 (11/4-18): One-on-one meetings with students.</td>
</tr>
<tr>
<td>Week</td>
<td>Assignments</td>
<td>Class meetings and workshops</td>
<td>Group and advisor meetings and advisor activities</td>
</tr>
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<td>-----------------------------------------------</td>
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<tr>
<td></td>
<td></td>
<td><em>Data management workshops,</em> J. Gao, 3-4:20 pm, except where indicated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students attend one workshop with their group. Students that completed ECO 313 (all passing grades) or ECO 312 (with a grade of A-, A, or A+) are exempt. Five workshops: 11/4 (3-4:20 and 7:30-8:50 pm), 11/6, 11/11, 11/13</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Draft prospectus returned to students on 11/26 (Tu).</td>
<td></td>
<td>Review AI’s comments on drafts.</td>
</tr>
<tr>
<td>11</td>
<td>Prospectus due at 11:59 p.m. on 12/11 (W) on Blackboard</td>
<td><em>Advising group meeting:</em> Student presentations, 3-4:20 pm. 12/2 (M) or 12/4 (W); 7:30-8:50 12/3 (Tues)</td>
<td>Grade/comment on the prospectus.</td>
</tr>
<tr>
<td>12</td>
<td>Fall term—Reading period</td>
<td>Graded prospectus available after Dean’s Date from Christina</td>
<td>Submit prospectus grades and comments to Christina Lipsky by 1/10</td>
</tr>
<tr>
<td></td>
<td>Spring term—first six week: Analysis and writing</td>
<td><em>Data analysis workshops,</em> V. Sampathkumar (a) <em>Cross-section/panel data</em> 1st to 3rd week of spring semester</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) <em>Time-series data</em> Students sign up for one (out of six) sessions on WASE, net-Id: ecojiw, name: JIW in January. Students that completed ECO 313 with a passing grade, ECO 312 with A- or better or ECO 302 with A or better are exempt.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Draft JP due 3/27 (F)</td>
<td>Weeks 1-2 (2/3-2/14): One-on-one meetings with students to discuss prospectus and next steps.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Draft JP returned on 4/6 (M)</td>
<td>Week 5, 6 or 7: Three <em>advising group meetings</em> (split group into three subgroups): Student present ongoing work. Schedule TBA by individual advisors/AIs</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Final JP due on 4/22 (W) by 11:59 p.m. on Blackboard</td>
<td>Weeks 11-12: Grade/comment on JP</td>
<td></td>
</tr>
</tbody>
</table>

*Graded prospectus available after Dean’s Date from Christina.*
<table>
<thead>
<tr>
<th>Week</th>
<th>Assignments</th>
<th>Class meetings and workshops</th>
<th>Group and advisor meetings and advisor activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>Extra office hours for students wishing to discuss senior thesis plans.</td>
</tr>
</tbody>
</table>

**Spring term – Reading period**

| Graded JPs available after Dean’s Date from Christina | *Senior thesis planning meeting, Noonan/Bordelon, 5/4 (M), 3-3:50* | Grade/comment on JP (due 5/8) |

Christina will distribute grade info and comments for the prospectus and JP. She will E-mail groups as the information becomes available. Overall JIW grades will appear on Tigerhub at the end of May.
7. Grading

On your transcript, you will receive a single JIW grade, which will be based on the prospectus, the junior paper, and attendance and participation in lectures, workshops, and advising group meetings.

The prospectus

Criteria for Grading

The prospectus can be thought of as falling above, below, or on an imaginary line in the grading scale. In general, prospectuses that meet the top five of our criteria will receive grades above the line (A+, A, or A-). Those that don’t meet these five criteria will receive grades below the line (regardless of how well they fulfill the other criteria). See the following page for a detailed grading rubric.

1. Question or Problem. A well-defined question or problem that requires economic analysis and that's motivated (in terms of the economics/finance literature and/or the proposed methodology), feasible (in terms of the available data for empirical projects, and the mathematical and computational methods for theoretical projects), and presented explicitly and early in the document.

2. Innovation and Independence. Demonstration of insight and independence of thought or approach, whether in terms of the question or problem posed, the methodology specified, or (for empirical projects) the data to be analyzed.

3. Methodology. A well-developed and appropriate methodology (an empirical approach or a theoretical modeling strategy) that can informatively address the question or problem. For empirical projects, this means (1) a clear statement of the hypothesis or hypotheses to be tested, and (2) the identification and justification of the statistical and econometric technique to be used (for example, linear or probit regression analysis). For theoretical projects, this means (1) a tentative but essentially complete statement of the structure of the model, (2) a clear statement of the solution methods that will be used (for example, closed-form analytical or numerical solutions), (3) preferably, some preliminary results, and (4) a statement of ways in which the model will be developed and refined in the following semester.

4. Data. For empirical projects, well-chosen data that are appropriate to the question or problem and are readily available.

5. Structure. A visible, easy-to-follow structure consistent with the conventions of economics.

6. Literature Review. The situating of the question or problem in the literature—not an attempt to exhaustively cite the literature but rather to establish a link between the question/problem and the existing literature in economics/finance.

7. Expected or Preliminary Results. This should include (1) discussion of the outcomes, or results, that the author anticipates, (2) a brief explanation of the reasons for the expectation, whether economic intuition or the findings of related previous research, and (3) the discussion of possible pitfalls and thoughts about further research.

8. Style. Lucid, informative, readable sentences; well-defined key terms and concepts; appropriate gauging of readers’ knowledge; presentation of sufficient context; clear and concise writing.
9. Source citations. The proper and consistent use of a citation style found in the economics/finance literature—for example, the APA style or the style used in the *American Economic Review*.

Grading Rubric

A+ An A+ prospectus meets all of the criteria and could lead to a publishable paper in an Economics or Finance journal.

A range An A prospectus fully meets all criteria. An A- prospectus fully meets the top five criteria and is competent with respect to the other four.

B range A prospectus in the B range is problematic in terms of any of the top five criteria (e.g., has a well-defined question/problem but a poorly rationalized methodology or an imprecise question/problem but a well-chosen data set and promising methodology) and is competent with respect to the other four.

C range A prospectus in the C range is faulty in terms of any of the top five criteria and may be less than competent with respect to the other four.

D A D prospectus is deficient in most of the criteria and adds nothing to one’s understanding of the subject beyond what might be gleaned from superficial reading in the area. Even a D prospectus, however, must demonstrate that the writer has some knowledge and understanding of the economic issues.

F An F prospectus is similar to a D prospectus but is less than half the expected length and/or fails to bring economic tools to bear on the problem.

The expected length of a junior prospectus is ten pages (excluding the bibliography).

The paper

The same grading criteria apply to junior papers and senior theses. When assessing independent work in terms of innovation, sophistication and completeness, JP advisors should take into account that juniors have significantly less time to work on their papers and have taken fewer economics courses than seniors.

Criteria for Grading

A junior paper (JP) or senior thesis can be thought of as falling above, below, or on an imaginary line in the grading scale. In general, independent work that meets the top 4 criteria below will receive grades above the line (A+, A, or A-). Those that don’t meet these 4 criteria will receive grades below the line (regardless of how well they fulfill the other criteria). See the next page for a detailed grading rubric.

1. **Question or Problem.** A well-defined question or problem that requires economic analysis and that is motivated (in terms of the economics/finance literature and/or the proposed methodology), feasible (in terms of the available data for empirical projects, and the available mathematical and computational methods for theoretical projects), and presented explicitly and early in the document.

2. **Innovation and Independence.** Demonstration of insight and independence of thought or approach, whether in terms of the question or problem posed, the methodology specified, or the results.
3. **Methodology.** A well-developed, appropriate, and sophisticated methodology (an empirical approach or a theoretical modeling strategy) that informatively addresses the question or problem. For empirical projects, this means (1) a clear statement of the hypothesis or hypotheses, (2) a detailed characterization of the data set and why it was chosen, (3) the identification and justification of the statistical and econometric technique used (for example, linear or probit regression analysis), (4) careful and thorough implementation of the technique, and (5) review and discussion of applicable test statistics. For theoretical projects, this means (1) a complete statement of the structure of the model, (2) justification of solution methods (for example, closed-form analytical or numerical solutions), and (3) solution of the model.

4. **Results.** An explicit statement and discussion of the new results emerging from the project and their relevance to economics and/or finance. This discussion should also include a discussion of (1) how the results relate to economic intuition and/or the findings of related previous research, (2) possible limitations of the results, and (3) directions for further research.

5. **Structure.** A visible, easy-to-follow structure consistent with the conventions of economics. A reader can easily identify sections that typically occur in papers in the economics/finance literature, such as Title, Abstract, Introduction, Literature Review, Methodology, Results, Conclusion, and References.

6. **Literature Review.** The situating of the question or problem in the literature—not an attempt to exhaustively cite the literature, but rather to establish a link between the question/problem and the existing literature in economics/finance.

7. **Style.** Lucid, informative, readable sentences; well-defined key terms and concepts; appropriate gauging of readers’ knowledge; presentation of sufficient context; clear and concise writing.

8. **Source Citations.** The proper and consistent use of a citation style found in the economics/finance literature—for example, the APA style or the style used in the *American Economic Review*.

**Grading Rubric**

- **A+** An A+ JP or thesis meets all of the criteria and makes a significant contribution to the Economics/Finance literature.
- **A range** An A JP or thesis fully meets all criteria. An A- JP or thesis fully meets the top four criteria and is competent with respect to the other four.
- **B range** A JP or thesis in the B range is problematic in terms of any of the top four criteria (e.g., has a well-defined question/problem but a poorly rationalized methodology and inconclusive analysis, or an imprecise question/problem but an interesting set of results derived with appropriate methodology, or a competent analysis of a well-defined question but with only limited new insight or limited applicability) and is competent with respect to the other four criteria.
- **C range** A JP or thesis in the C range is faulty in terms of any of the top four criteria and may be less than competent with respect to the other four.
- **D** A D JP or thesis is deficient in most of the criteria and adds nothing to one’s understanding of the subject beyond what might be gleaned from superficial reading in the area. Even a D independent research project, however, must demonstrate that the writer has some knowledge and understanding of the economic issues.
An F JP or thesis is similar to D work in that it fails to meet most criteria. A failing grade indicates that the student did not research the subject at all adequately and/or fails to bring economic tools to bear on the problem.

Juniors and seniors are asked to stay within the recommended page limits for their JPs (25-35 pages) and senior theses (60-80 pages) and to follow formal requirements specified in the memos on independent work. The page limits do not include bibliographies and appendices.

For practical purposes faculty advisors will assign between 1 and 100 points to your prospectus and final JP.

<table>
<thead>
<tr>
<th>Grade</th>
<th>A+</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>97-100</td>
<td>93-96</td>
<td>90-92</td>
<td>87-89</td>
<td>83-86</td>
<td>80-82</td>
<td>77-79</td>
<td>73-76</td>
<td>70-72</td>
<td>60-69</td>
<td>&lt;60</td>
</tr>
</tbody>
</table>

Examples of A-level prospectuses and junior papers can be found on Blackboard.

**Attendance**

Students are required to attend eleven meetings: four lectures, four workshops, and three group advising meetings. AIs will take attendance during these meetings and it is the students’ responsibility to make sure that he/she signs the attendance sheet. Please do not sign for friends. Some juniors are exempt from the data workshops. Please see workshop descriptions for specific exemptions.

Students may receive between 0 and 100 points for attendance. Points received for attendance will be equal to the average of the points received on the prospectus and JP minus a penalty for missed meetings. You may miss one meeting without penalty. If you miss more than one meeting we will reduce your ‘attendance points’ by 3 points for each additional meeting you miss.

Example: If you miss three out of eleven meetings, you will be penalized for missing two meetings. Suppose the average of your points on the prospectus and JP is 91. We will then subtract six points (2 times 3 points) from this average; you will receive 85 points for attendance.

**Participation**

Students are expected to participate in advising group meetings. You may be asked to give a presentation on your ongoing research and to provide feedback to other students. Moreover, participation in Blackboard discussion forums (if applicable) counts as part of the participation component of grading.

Students may receive between 0 and 103 points for participation. Points received for participation will be equal to the average of the points received on the prospectus and JP plus a participation adjustment. Each faculty advisor will indicate if a student’s participation in group meetings was above-average, average, or below-average. We will add three points to the average of the prospectus/JP points for above-average participation, subtract three points for below-average participation, and record your average prospectus/JP points for average participation.

Example: If your participation is above average and you received an average of 91 points on your prospectus and JP, you will receive 94 points for participation.
Grading weights

The following weights will be used to calculate your final grade. We will use points rather than letter grades to calculate your overall JIW grade. **Note that if you receive an F on your paper, your overall JIW grade will be a failing grade.**

<table>
<thead>
<tr>
<th></th>
<th>Prospectus</th>
<th>Paper</th>
<th>Attendance</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students at Princeton University</td>
<td>25%</td>
<td>60%</td>
<td>7.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Juniors studying abroad for one term</td>
<td>26.25%</td>
<td>62.5%</td>
<td>3.75%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Juniors studying abroad for two terms</td>
<td>27.5%</td>
<td>65%</td>
<td>0%</td>
<td>7.5</td>
</tr>
</tbody>
</table>

On your transcript, you will receive a single JIW grade, which will be based on the prospectus, the junior paper, and attendance and participation in lectures, workshops, and advising group meetings.
8. Submission Requirements

The prospectus and the final paper should be typed and double spaced, and should show the title, your name, your advisor’s name, and the date on the front page. Also type the honor pledge on the front page. Please follow the *American Economics Review* citations style. This in turn is based on the Chicago Manual of Style Author-Date system.

The prospectus and paper should be submitted electronically on the JIW Blackboard site before the due date. Please save your work in PDF format and label your file with your last and first name and your advisor’s last name. In Blackboard, go to Assignments and click on the applicable heading. Follow the instructions and make sure to click submit after you attach your file. (It is not enough to just save your work). We will use the time stamp on your submission when deciding on late penalties. Do not submit corrupted or otherwise unreadable files; check your PDF file to make sure that the conversion to PDF was successful.

Please do not submit your work piecemeal. A prospectus or paper must be complete upon submission. If the body of a paper is submitted on time, but a file including footnotes, figures, or complete references is submitted two days late, then the entire paper will be considered two days late. (See “9. Extensions and penalties” below).

9. Extensions and Penalties

In the interest of equal treatment, extensions of time for graded works can only be granted by the department office. Please direct any requests to Professor Noonan. *Your advisor cannot grant extensions of time on the prospectus and the final JP.* In addition, in practice, extensions are almost never granted. It is the student’s responsibility to ensure that the deadlines for the prospectus and the final JP are met. Neither time pressure from other academic or extra-curricular commitments, nor computer or printer problems are sufficient grounds for grants of extra time. Be sure to budget your time prudently.

All late submissions will be penalized. The penalties are: one-tenth of a letter grade (one point) for a submission that is up to eight hours late, one-third of a letter grade (three points) for a submission that is up to one day late, and two-thirds of a letter grade (six points) for a submission that is two days late, with greater penalties for later submissions as determined by a faculty committee.

**Back up your computer files:** Please be sure to routinely back-up your computer files. A single hard-drive copy is not sufficient insurance. A hard drive failure will not excuse a late submission.

10. Academic Infractions and Academic Fraud

A prospectus or paper which contains academic infractions or which is in any way the result of academic fraud **will automatically receive a failing grade.** Please be sure to cite correctly, and to give proper credit to other authors for their ideas and language. Document your references using the style used in the *American Economic Review*. It is a good idea to look at a recent paper in the *American Economic Review* or *Journal of Economic Perspectives* to have an example of how it is done.
11. A Note on Data

The feasibility of an empirical paper depends on the existence, availability, quality, and cost of your data. While the library’s data holdings are superb, and Firestone will be able meet most students’ needs, there are some specialized areas where the data tend to be proprietary or the data cost is prohibitive. In finance, for example, Firestone is strong in stocks, bonds, futures, commodities, mutual funds, mergers and acquisitions, IPOs, fundamentals, earnings forecasts, REITs, and options but data are limited for hedge funds, venture capital, and real estate. International macroeconomic data are excellent, but international microeconomic data are harder to obtain. Proprietary data from corporate sources are generally expensive and sometimes unobtainable. Privacy restrictions may encroach on US micro data in health and education.

These caveats should not discourage you in any way. Firestone can support on a limited capacity most projects. But your project is more likely to succeed if you consult early with our knowledgeable Economics and Data Librarians, Bobray Bordelon, Bobbi Coffey, and Stacy Nemeroff.

12. Research Involving Human Subjects

If you plan to conduct research that directly involves human subjects (e.g., asking classmates to respond to a survey, research using identifiable data) you must apply for permission to the Institutional Review Board (IRB) for Human Subjects. All human-subjects research must be approved by IRB before initiation. Moreover, the faculty advisor and student need to complete an online training and certification process prior to submitting their materials to IRB for review. The required training can be completed at: https://www.princeton.edu/ria/human-research-protection/training/. These are university (and federal) requirements. For more information, please visit the IRB website: https://www.princeton.edu/ria/human-research-protection/hrpp-home/. IRB applications should be filed before February 27, 2020.

13. Juniors Studying Abroad

Juniors in economics studying abroad in the fall or for the entire junior year should submit their JIW advising group request form as early as possible. Similar to juniors at Princeton they will be assigned to an advising group. Juniors abroad are strongly encouraged to keep in regular contact with their advisor and review material posted on the Blackboard site for the class as a whole and their advising group. They will receive a grade for participation but not for attendance during semester(s) they spend abroad. When evaluating a student for participation, the JP advisor will consider whether the student kept in touch regularly, turned in drafts as expected, etc. Juniors abroad are expected to adhere to the deadlines in the junior calendar. Please contact Professor Noonan if you plan to go abroad and/or have any questions.

14. Political Economy Concentrators

Juniors in the Department who wish to join the Program in Political Economy should submit PPE Applications to Christina Lipsky in 114 JRRB by Monday, September 30, 2019. Political Economy concentrators are required to write a junior paper with sufficient political economy content, as judged by the advisor. Several of the faculty advisors have specific expertise in public economics. However, PE students are not restricted to these advisors, since it is possible to identify paper topics within each of the areas (e.g., macroeconomics, labor economics, and development economics) that are concerned with political economy issues. An overview of PPE follows on the next page. Please address any questions related to this program to the Political Economy advisor, Professor Weyerbrock.
15. Exemplary prospectuses and junior papers

Examples of successful prospectuses and JPs from previous years have been posted on the JIW Blackboard site.
OVERVIEW

The Department of Economics offers a Program in Political Economy (PPE) that is open to Economics concentrators.

There is strong interaction between the fields of economics and politics, both in content and in methods. Political forces shape markets and other economic institutions. These forces attempt to modify the distribution of income, and both introduce distortions in markets and correct for market failures. On the other hand, economic motivations permeate the political environment. Furthermore, both fields model the motivations of individual actors and use statistical methods. The Program in Political Economy is for students who are interested in studying issues at the intersection of these two fields.

Admission to the program takes place in the beginning of the fall semester of the junior year. A student who participates in this program is an Economics concentrator and is subject to all the requirements of the Economics department. The PPE functions like a certificate in that its requirements are additions to those already required of all Economics concentrators. Upon graduation, given successful completion of all requirements, the student receives a Certificate in Political Economy from the Department of Economics. Participation in the program does not appear on the student's university transcript.

PREREQUISITES

To enter the program, the student should satisfy the prerequisites for concentration in both the Politics and the Economics departments. This means that the students entering the program must have completed ECO 100 and 101, MAT 175, ECO 202 (statistics), and two Politics courses (at any level) on a graded basis.

POLITICS COURSE REQUIREMENTS

In addition to the two Politics prerequisites, a student in the PPE must complete three Politics departmentals, i.e., Politics courses in the 300 level or higher, on a graded basis. One of these, upon approval of the Political Economy Advisor, can be a politics-related course from a department other than Politics or Economics.

Because of these additional course requirements, a PPE student may want to count one or two Politics departmentals as Economics cognates. Economics automatically approves Political Economy (POL 349), Comparative Politics (POL 352), and International Political Economy (POL 385) as ECO cognates. Infrequently, and only with advance approval, an Economics course can be counted toward the Politics course requirement of the PPE; contact the Political Economy Advisor, Professor Silvia Weyerbrock.

INDEPENDENT WORK

A PPE student has the same junior and senior independent work requirements as do other economics concentrators, with one exception. Political Economy concentrators are required to write a junior paper with sufficient political economy content, as judged by the advisor. Students are also encouraged, but are not required, to write a senior thesis that is related to political economy.
DEPARTMENTAL AVERAGE

Politics courses are not included in the student's departmental average (unless a course has been approved as an Economics cognate).

HOW TO APPLY

Application forms for the program are available on the department’s undergraduate webpage. A student wishing to enroll in the PPE must submit the application form by Monday, September 30, 2019, to Christina Lipsky, 114 Julis Romo Rabinowitz Building.

The application form asks you to list your prerequisites, to write a brief statement of intent, and to specify a four-semester course plan. The purpose of the statement of intent is for you to think about why you are interested in the program and to consider a topic for your junior independent work. The purpose of the course plan is for you to formulate a cohesive set of courses and a timely plan for completing them. The course plan should specify what economics and politics departmentals you will take and when. It is not necessary to inform the PPE advisor if you subsequently deviate from the plan.

FOR MORE INFORMATION

For more information, contact the Political Economy Advisor, Professor Silvia Weyerbrock, 227 Julis Romo Rabinowitz Building.
SAMPLE of Online Advising Group Request Form

Due Date: Friday, September 20, 2019, 4:45 p.m. Question to Christina Lipsky, 114 JRRB.

First Name: *

Last Name: *

E-mail address: *

What day of the week can you meet from 3-4:20 pm? *

- Mondays and Wednesdays
- Only Mondays
- Only Wednesdays

Did you already self-match with a faculty advisor? If yes, indicate the advisor's name below and ask faculty advisor to e-mail Christina (lipsky@princeton.edu) and confirm match.

Who is your first choice for JIW adviser? *

**Be sure you are available on the meeting day selected by your adviser!**

Who is your second choice for JIW adviser? *

Who is your third choice for JIW adviser? *

Who is your fourth choice for JIW adviser? *

Who is your fifth choice for JIW adviser? *

Who is your sixth choice for JIW adviser? *

Which two broad areas in economics are you most interested in with regard to JIW? *

- Domestic Policy
- International Economics
- Microeconomics
- Macroeconomics
- Economic Theory
- Financial Economics

Please indicate any thoughts regarding the topic of your junior paper. Be as specific as you can at this time. (You may change your mind). *

Are you planning to study abroad this year? *

- Yes
- No

Will you apply to the Program in Political Economy? *

- Yes
- No