To: Economics Majors, Joint Majors, and Concentrators

From: Susan Elmes, Economics Department DUS Subject: Information for academic year 2020-2021

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This memo is addressed to all students who have declared a major, joint major, or concentration in economics to help you plan for the upcoming academic year.

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Graduation Clearance

In order to graduate, the Department must certify that you have completed your declared program in economics. We check your Columbia transcript and any transfer credits that have been approved by the Department. Each year, we discover students whose records are incomplete (e.g. transfer credit approvals are missing), or who have not strictly followed the course sequencing requirements. In some cases, this is discovered too late to allow the student to graduate on time with his or her intended economics degree. It is <u>your</u> responsibility to make sure that you have completed your economics major and that your student records are up to date. You should complete a <u>checklist</u> for your program. If you have any questions or concerns about your completed checklist, then you should contact <u>econ-advising@columbia.edu</u>. You should <u>not</u> rely on your DAR or on your College or GS advisor to certify that you have completed your economics program.

Four of the most common problems are:

- AP, IB or GCE credits not listed on the transcript: If you are using any of these
 advanced placement credits in place of *Principles of Economics* or *Calculus I,II*, then
 those credits <u>must</u> appear on the bottom of your transcript. If they do not, then you
 are officially missing those required courses for the major/concentration. You must
 speak with your College or GS advisor ASAP to have those advanced placement
 credits posted.
- **Math High School credits:** If you have high school math credits that exempt you from *Calculus I*, then you must obtain written certification from the Math Department, and have that sent to the economics department (send to ly38). Note that if you have been waived out of *Calculus-I* but not given college credit for your

calculus course, then you must <u>replace</u> the 3 credits with an additional course. The Economics Department accepts any economics, math or statistics elective course at the 2000 level or higher, *Calculus II*, *Calculus IV* and any computer science course as a replacement for Calculus I.

- Transfer credits: All economics transfer credits used for an economics program
 must be approved in writing by the Economics Department. Calculus-I and Stat 1201
 transfer credits must also be approved by us. See our Transfer Credit page for
 details on how to apply for departmental transfer credit approval. Other math
 /statistics courses must be approved by those departments, and a copy of those
 approvals must be sent to the economics department (ly38).
- Course Sequencing: We do <u>not</u> count credits from courses that were taken prior to
 the completion of the course pre-requisites. All course pre-requisites are posted in
 the bulletin, on the Department website and on the Directory of Classes. If you have
 taken a course prior to, or concurrently with its pre-requisites, then you will be
 required to take at least one <u>additional</u> course in economics, and you should contact
 Laura Yan (ly38) ASAP to discuss what additional course (or courses) will be
 required.

The earlier that you find any of these issues, the easier it is to take care of them. All majors and concentrators should fill out the checklist for their program. Students who have any questions or concerns about the fulfillment of his or her program, are advised to email (econ-advising@columbia.edu), or speak in person with econ-advising. The Department will not give graduation clearance to any student who has not satisfied the major or concentration requirements due to any potential problems caused by the above points.

Advising

Graduate student advisors will hold weekly office hours via Zoom and respond daily to student emails. The graduate student advisors are able to discuss *major requirements*, *course scheduling and selection, your completed checklists* and *your progress in the major*. Outside of transfer credit or study abroad questions, students should direct all questions and concerns about their major to econ-advising either through email or in office hours. Details about how to schedule an appointment with an adviser will be posted on the Advisors page of the website shortly before classes begin.

Graduate student advisors do <u>not</u> review <u>transfer or study abroad credits</u>. See the Transfer Credits section below for more information on how to apply for approval of credits taken outside of Columbia.

Students may request a faculty advisor to discuss academic or career goals. Faculty advisors do not discuss major requirements (that is the role of the graduate student advisors). Faculty advisors will discuss course selection to meet intellectual goals and interests, as well as career or research options. If you plan on attending a PhD program in economics or pursuing economics research after graduation, then it is recommended that you request a faculty advisor. There is a link to a form on the Advisors page to request a faculty advisor.

Elective Courses 2020-21

The tentative list of all elective course offerings of the Columbia department for the upcoming year including the Summer A session is below. Elective courses that are on the

restricted lists for Financial Economics and Econ-Philosophy majors are indicated in the table. For the most up to date information on course offerings check the <u>Directory of Classes</u>. For information about the offerings of the Barnard Economics Department or other Columbia departments, please consult their websites. We do not have information about their offerings.

Fall Electives	Fin Ec Elective	Econ-Phil Elective
UN 2105 The American Economy		
UN 3025 Financial Economics		
GU 4020 Uncertainty & Information	X	X
GU 4251 Industrial Organization	X	
GU 4280 Corporate Finance		
GU 4301 Econ. Growth & Development		X
GU 4325 Econ Development of Japan		
GU 4370 Political Economy		X
GU 4412 Advanced Econometrics	Х	
GU 4415 Game Theory	Х	X
GU 4438 Economics of Race in the US		X
GU 4500 International Trade	X	X
GU 4750 Globalization and Its Risks		X
Spring Electives	Fin Ec Elective	Econ-Philo Elective
UN 2257 Global Economy		
UN 3025 Financial Economics		
UN 3901 Economics of Education	X	X
GU 4211 Advanced Micro		X
GU 4213 Advanced Macro	X	X
GU 4230 Econ of NYC		X
GU 4251 Industrial Organization	X	
GU 4260 Market Design	X	
GU 4280 Corporate Finance		
GU 4321 Economic Development		X
GU 4413 Time Series Forecasting	X	
GU 4415 Game Theory	X	X
GU 4465 Public Economics	X	X
GU 4500 International Trade	X	X
GU 4505 International Macro	X	
GU 4860 Behavioral Finance	X	
Summer A Electives	Fin Ec Elective	Econ-Philo Elective
UN 3025 Financial Economics		
UN 3265 Money and Banking	X	
GU 4280 Corporate Finance		
GU 4465 Public Economics	X	X

GU 4370 Political Economy

As usual, ECON GU 4370 Political Economy will only be offered in the Fall semester. Since some students may choose not to take courses this Fall, we will allow Econ-Poli Sci majors to substitute GU 4465 Public Economics in the Spring semester. In addition, you will be allowed to take GU 4465 concurrently with the senior seminar ECPS GU 4921.

If you are a junior Econ-Poli Sci major who is planning to graduate in either the Spring of 2021 or in the Fall of 2021, then you also have the option of taking either GU 4370 or GU 4465 this year and taking GU 4465 concurrently with the senior seminar in the Spring of 2021. This seminar is not offered in Fall 2021. So you must take it in Spring 2021 if you plan to graduate in Spring or Fall 2021.

UN 3025 and GU 4280

Only one section each of UN 3025 Financial Economics and GU 4280 Corporate Finance will be offered in the Spring semester. As a consequence, both will fill up quickly. If you are interested in one of these courses, then you might consider taking it this Fall. Alternatively, both courses will also be offered in Summer A.

SDEV UN2320 Economic and Financial Methods for Sustainable Development

Economics majors and concentrators may take SDEV UN2320 for 2000 level elective credit. If you are pursuing programs in both economics and sustainable development, you should speak with your College or GS adviser regarding the new policy on double counting this course. If you would like to count it as a 2000 level elective, then you must send Laura Yan an email (Iy38) indicating that you would like to do so.

College Business Courses

Columbia College offers several business oriented classes. We do not oversee these courses, and do not have information about them. If you have questions about these courses, please contact the Business School for more information at BusinessManagement@gsb.columbia.edu. Note that you may only take these courses for credit towards the financial economics major (subject to the limitations posted in the bulletin). You may not take these courses for credit towards an economics major, concentration or any joint major.

5000 and 6000 Level Courses

Graduate level courses in economics (courses numbered 5000 and above) are closed to online registration by undergraduates. All 5000 level courses are restricted to Masters students. Undergraduates wishing to take a 6000 level class must receive approval from both the Directors of Undergraduate and Graduate Studies. Prior to taking any of these 6000 level classes, it is expected that you have successfully completed one or (preferably) more of the advanced undergraduate courses (4211, 4213 and 4412), higher level statistics (e.g. the sequence 4203-4204), and at least one semester of mathematical analysis (4061). Requests to take one of the 6000 level courses must be made in writing (se5@columbia.edu) by August 21.

Waitlists

In the cases of 4280 Corporate Finance, any Junior Seminar (e.g. UN3952), 4995/4996 Research Credit and 4997/4998 Independent Study, you will only be able to register online for the waitlist. The Registration Information page contains the details on taking one of these classes.

Senior Seminars

Fall Seminar Registration

Seminars are strictly limited to <u>16</u> students. Registration for GU4911 section 0 is closed for the fall semester. Final assignments to the seminars will be made by **September 1**. All remaining seats will be available for walk in registration beginning on the first day of classes. During the first week of classes, only seniors may enroll in the seminars. After the first week of classes any student who has completed his or her core requirements in economics may enroll in any seminar that remains open. For more information about the sign-up process, please see the <u>Senior Seminars Registration</u> page.

Seminar Pre-requisites

All students other than Econ-Poli Sci majors must have completed the core intermediate courses (UN3211, UN3213 and UN3412) prior to registering for a senior seminar in economics. **No** students will be allowed to register for these core requirements concurrently with their senior seminar.

Econ-Poli Sci students must have completed UN3211, UN3213, and either UN3412 or POLS GU4710 prior to taking the senior seminar. Students will not be allowed to take any of these courses concurrently with the senior seminar. In addition, Econ-Poli Sci students must either have completed GU 4370 or be registered for GU 4465 concurrently with the senior seminar.

Seminars for the Joint Majors

Seminars for the joint majors are offered in the spring semester only. Econ-Poli Sci majors must take GU4921, Econ-Philosophy majors must take GU4950, and Econ-Stats majors must take GU4918. As noted above, you must have completed the seminar prerequisites before you will be registered for these seminars. Laura Yan will contact you directly about seminar registration in November. You will not participate in the seminar lottery.

If you are a junior in one of these joint majors and are planning on graduating early (either in your junior year or fall of your senior year), then you must take these seminars this spring. That requires you to complete the seminar prerequisites this fall semester. You must also contact Laura Yan in early November to let her know that you are planning an early graduation.

Financial Economics Majors

In 2020-21, all seminars fulfill the senior seminar requirement for the Financial Economics major.

Summer Seminar Offerings

This year, we will offer at least 2 senior seminars during the Summer A session. Students graduating at the end of the Summer A session will have priority for these seminars.

Honors Thesis

All students interested in writing a senior honors thesis during academic year 2020-21 should have submitted a preliminary proposal during the Spring 2020 term. Regardless of whether you did or not, you must send your final proposal to me by August 24th (se5@columbia.edu). The final proposal must include the following information:

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1. A (minimum) one paragraph description of your topic. The paragraph must contain at least one economics question that you would like to address in your thesis. Since most theses are empirical, you must also note what data sets you will be using to answer your question.

- 2. A second paragraph indicating what in your background (either class work or work experience) qualifies you to work on your proposed topic (e.g. if your topic is Russian exchange rate movements you might want to tell me that you have taken international monetary theory).
- 3. All of the grades that you have received in your economics classes at Columbia. Simply copy the grades in economics classes as recorded in your Columbia DAR. You should not include grades from other departments. If you have transferred any economics credits, then you should include those grades as well.
- 4. Finally, include the name(s) of faculty members that you believe would be interested in working with you. If you do not know a faculty member who would be interested, then you should look at our website for information on their research interests.
- 5. You must complete the Google form at https://docs.google.com/forms/d/e/1FAlpQLScund2DpQICxSIZJq6Falh6k6nshUFzlw5108DvDggsdoqZaA/viewform?usp=sf_link

A faculty committee will review the proposals to both select students for the seminar and to match students with an appropriate faculty member who will serve as the student's thesis advisor. Admitted students will put their names on the waitlist for the honors seminar.

GU4999 will run as a year-long course for 3 points per semester with a grade reported only at the end of the academic year. Writing a thesis will substitute for the departmental seminar requirements. Students who wish to drop out of the honors program at the end of the fall semester may do so. In this case, he or she will receive a grade of R for the fall. The student will be required to take a senior seminar to satisfy the seminar requirement.

In addition to working one-on-one with your faculty advisor, the senior thesis candidates will meet as a group to discuss their research. In the fall these meetings will be held on Tuesdays from 12:10-2 with Prof Best. You must be able to attend the Tuesday meetings. The first meeting will be in late September. Once you are registered, you will receive a meeting schedule.

For more information regarding Departmental Honors and the Senior Thesis, see the <u>Honors and Prizes</u> page. The page includes <u>advice</u>, a link to a <u>writing guide</u> and <u>examples</u> of some of the outstanding theses of former students.

Opportunities

<u>Career Opportunities</u> has links to specific information available from Career Education, as well as, links to online career and job search resources for economics majors. <u>Research Opportunities</u> has information both for students looking for RA positions at Columbia and for students looking for full-time positions after graduation.

Graduate Study in Economics

The AEA has a resource page for <u>Preparing for graduate school</u> where you will find information about types and rankings of programs, fellowships available, and academic preparation for graduate work. <u>Considerations for prospective graduate students</u> in

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economics has advice regarding pursuing a PhD in economics, as well as, links to further advice on the application process and the expectations of a graduate program. Of particular note is the Athey essay and the BYU guide, but all of the links contain helpful information.

If you are considering graduate work, you should speak with econ-advising to plan your course schedule. We also recommend that you:

- check out the list of recommended courses on the Sample Programs
- take a junior seminar
- write an honors thesis
- work as an RA for at least one faculty member.
- request a faculty advisor

There will be an information session in the fall for students considering graduate work in economics. Information will be sent on the major listserv and posted on the wiki page.

TA Positions

The department expects to hire undergraduates to work alongside our graduate students as teaching assistants in several courses. Each assistant will be paid \$1800 per semester. An announcement will be sent shortly advertising the available positions. Applications are due by August 24th.

RA Positions

At the beginning of the semester, the department will send out the names of faculty members and PhD students who are looking for undergraduate research assistants. You will also find the latest information on jobs, internships and other opportunities for undergraduates on the <u>wiki</u> page. Alternatively, if you know of a faculty member who would like to hire you as an assistant, then ask that faculty member to contact me. For more information on RA positions see the Research Opportunities page.

Prizes

All prizes are open to majors and joint majors.

The **Parker Prize** is awarded each year to the top CC economics major that will be pursuing a Ph.D. in economics. The prize committee will consider applicants who are not planning to immediately start graduate school, although preference may be given to those students who are entering a Ph.D. program in 2021-22. Please be sure to let me know in the fall semester if you are applying for graduate study in economics for academic year 2021-22, or else plan to pursue a Ph.D. in economics within the next few years.

The **David Estabrook Romine Prizes** in Economics are available to both CC and GS students: one prize will be awarded for the best paper written in a senior seminar, and one prize will be awarded for the best senior honors thesis. Faculty will be asked to nominate students for these prizes and a faculty committee will select the winner. All prize winners will be announced at the end of the spring term. If you are taking a senior seminar in the spring of your senior year and you want to be considered for the Romine Prize, then you should speak with your instructor before the first week of April.

The Parker Prize for Summer Research provides financial support for CC students who take unpaid summer internships that focus on research. The GS Prize for Summer Research provides financial support for GS students to conduct research during the summer months. By introducing students to original research, a summer internship can provide the foundation for an honors thesis or develop an interest in pursuing a graduate degree. We are looking to support up to five CC (juniors preferred but it is open to all economics students) and two GS underclassmen.

For more information regarding Prizes including the names of recent recipients, see the <u>Honors and Prizes</u> page.

Major Credit for Non-Departmental Courses

The department limits the number of courses that students may take outside of the Columbia Economics Department.

- All majors and joint majors must take a minimum of 5 lecture courses in the Columbia Department of Economics. ECON 3025 and ECON 3265 will be considered Columbia department electives regardless of the instructor. Concentrators must take a minimum of 4 lecture courses in the Columbia department.
- The remaining credits for economics lecture courses may come from AP, Barnard elective courses (2000 or 3000 level), and transfer credits (either taken before registering at Columbia or study abroad).
- Students <u>must</u> take their senior seminar in the Columbia Department of Economics.
- The department does not restrict the number of non-economics courses taken outside Columbia to fulfill major requirements. For example, a student who has AP or transfer credits for Calculus-I will be able to take the same number of economics courses outside the department as a student who does not have such credits.
- Note that in the case of joint majors, courses taken to fulfill the requirements of the
 affiliated department are subject to the rules of that department. For example, a joint
 major with political science must check with the Political Science department on
 whether or not a particular class taken outside of Columbia is acceptable for the joint
 major.

Transfer Credits

All economics transfer credits must be approved in writing by the Department of Economics. If you have transferred to Columbia and you would like to transfer credits from economics courses taken <u>before</u> you came to Columbia, then you should contact your CC or GS advisor to initiate the process. If you are at Columbia and would like to take economics courses at another institution (including summer courses and courses taken abroad), then you should contact Dr Gulati. Information regarding the application for transfer credits and the materials you must present is available on the <u>Transfer Credit</u>

page. Please read that material carefully before submitting your materials for approval – incomplete submissions cannot be evaluated.

International Students

The economics, financial economics, economics-math and economics-statistics majors are designated as STEM programs. Students who complete these programs are eligible for extended OPT. Many students choose to use some of this extended time before graduation in order to take a summer internship. It is **strongly recommended** that you contact ISSO as early as possible to discuss applying for OPT for a summer internship. There is a substantial time lag between the application for OPT and approval of the application. If you wait until the spring semester to apply, it is likely that your application will not be approved in time.

Alternatively, the College and GS may be able to arrange a CPT visa. This is available to all students regardless of major. To explore this option, you should speak with your CC or GS adviser.

The Economics Department does not have any information about these applications and cannot answer any of your questions. You must consult with ISSO and your advising deans.

Computing and Data Resources

There is a dedicated TA to assist students with data and programming related questions. Students who are writing empirical papers, or working on empirical projects either in a lecture (other than UN3412 Econometrics) or a seminar, may schedule an appointment to speak with the TA during his or her office hours regarding programming issues. Details on scheduling a Zoom meeting will be posted on the Advisors page and the Computing and Data Resources page early in the semester. The TA will be able to answer questions regarding STATA and R programming. On the Computing and Data Resources page, you will also find some basic STATA and R tutorials and links to more information on the web. Students who are taking econometrics should consult with their econometrics TAs regarding their programming issues.