

**Course information**

**Course number/section:** SOCI 633–601; SOCI 320–500

**Course title:** Demographic Methods

**Time:** Tuesday and Thursday, 12:25–1:40pm

**Location:** Liberal Arts Social Sciences Building (LASB) 317  
(<https://aggiemap.tamu.edu/?bldg=1609>)

**Credit hours:** 3 (three)

**Course website:** <http://www.ernestoamaral.com/soci633-23spring.html>

This website provides this syllabus, slides, details about assessments and grades, videos, extra readings, external links, and other materials, which will be uploaded throughout the semester.

**Canvas website:**

Graduate (SOCI 633) <https://canvas.tamu.edu/courses/187697>

Undergraduate (SOCI 320) <https://canvas.tamu.edu/courses/193572>

I will utilize Canvas to write announcements to students, receive assignments, quizzes and exams, and post grades. **If students want to communicate with me, you should email me. I do not check messages sent to my Canvas Inbox.**

**Instructor details**

**Instructor:** Ernesto F. L. Amaral, Associate Professor, Department of Sociology  
(<http://www.ernestoamaral.com>)

**Office:** Liberal Arts Social Sciences Building (LASB) 320  
(<https://aggiemap.tamu.edu/?bldg=1609>)

**Phone:** (979)845–9706

**Email:** [amaral@tamu.edu](mailto:amaral@tamu.edu)

**Office hours:** <https://tamu.zoom.us/my/amaral>

I will provide office hours by appointment. Students must request appointments by email at least 48 hours in advance. When you enter this Zoom session, you will be placed in a waiting room. I will add you to the chat after I finish talking to the previous student.

### Course description

The main objective of this course is to introduce methods in demography, related to fertility, mortality, migration, and population projections. Discussions about demographic issues will be linked to the methods needed to analyze these topics. No prior coursework in demography or advanced statistics is assumed. Homework assignments will focus on short essay questions, data analysis, and application of statistical techniques.

I will cover topics related to procedures and techniques of demographic analysis, examination of demographic data, concepts of periods and cohorts, synthetic cohorts, the Lexis diagram, calculation of rates and probabilities, rate of natural increase, population growth and decline, and age-sex composition. The course will also cover trends and differentials in **fertility**, proximate determinants of fertility, period and cohort measures, and tempo-quantum effects. I will address **mortality** period and cohort measures, epidemiological transition, causes of mortality decline, standardization, and construction of life tables. Topics on **migration** will evaluate trends and differentials in population flows, estimation of migration rates, urbanization, and effects on receiving and sending areas. Finally, the course will cover population estimates and **projections**, age structure transition, changes in household composition, labor force participation, and population policies.

### Course prerequisites

For SOCI 320: Junior or senior classification or approval of instructor.  
For SOCI 633: Graduate classification.

### Learning outcomes

Upon successfully completing this course, students should be able to:

- Identify and describe concepts and methods in demography, related to fertility, mortality, and migration.
- Select secondary data to evaluate general demographic trends throughout the world and over time.
- Apply demographic methods to data from sub-national areas.
- Estimate and interpret fertility, mortality, and migration indicators.
- Explain and give examples of population estimates and projections.

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**Textbook and resource materials**

There are several options to buy or rent (new, used or digital) copies of the books listed below. As a student at Texas A&M you are not under any obligation to purchase a textbook from a university affiliated bookstore. The same textbook may also be available from independent retailers, including online retailers.

The following textbook is **required** for this course:

Wachter, Kenneth W. 2014. **Essential Demographic Methods**. Cambridge: Harvard University Press. (W)  
([MSC Bookstore](#))  
([Amazon](#))  
([Free Ebook at Texas A&M University](#))

I will also cover a couple of chapters from the following textbook, but it is **not required** for this course:

Poston, Dudley L.; Bouvier, Leon F. 2017. **Population and Society: An Introduction to Demography**. New York: Cambridge University Press. 2nd edition. (P)  
([MSC Bookstore](#))  
([Amazon](#))

We will use **Microsoft Excel** for applications of the content covered in this course. Via the course website, I will provide files containing this syllabus, slides, extra readings, exams, databases, external links, and other materials, which will be uploaded throughout the semester.

**Grading policy**

**Grading scale:** The course follows the standard rules of the university regarding the letter grading scale (<http://student-rules.tamu.edu/rule10>).

Assessment	Percent of final grade	Grading scale	Percent
Assignment 1	20%	A	90–100%
Assignment 2	20%	B	80–89%
Assignment 3	20%	C	70–79%
Assignment 4	20%	D	60–69%
Final exam	20%	F	0–59%
<b>Total</b>	<b>100%</b>		

**All assessments will not be graded on a curve.**

**Grades will not be rounded up (e.g., 59.9 is an F, 69.9 is a D, 79.9 is a C, 89.9 is a B).**

**Plagiarism:** All students who commit plagiarism are assigned zero for the assessment.

**Study groups:** You are not competing with others in this class for a grade. Feel free to form study groups to review course materials. However, assignments, quizzes, and exams are not group projects. Students should complete all graded activities individually. Students should not prepare or compare their answers to these activities with the work of others before submitting for a grade.

**Assignments** will consist of short essay questions, data analysis, and application of demographic techniques with Microsoft Excel. Students will have to present and interpret results in technically rigorous reports. Details about each assessment will be provided on the course website.

**Submission:** Assignments will be submitted through Turnitin within Canvas. Turnitin is an online database system designed to help instructors **detect plagiarism**, track citations, facilitate peer reviews, and provide paperless grading markup in written assignments.

**Due dates:** Students will have until 11:59pm of the due dates to turn in assignments through Canvas. Due dates are listed in the calendar of activities of this syllabus.

The **Final exam** will be given in class and will consist of short essay questions, multiple-choice questions, and others. The date and time are available in the calendar of activities of this syllabus. This exam will be given during final examinations week in accordance with the schedule published by the Office of the Registrar (<http://registrar.tamu.edu/Courses,-Registration,-Scheduling/Final-Examination-Schedules>).

**Course schedule (tentative)**

The tentative calendar of activities below includes dates, course topics, readings, and assessments due dates for this course. Changes will be indicated during classes and will be posted on the course website.

Day	Date	Topic	Reading Author.chapter	Assessment due date
<b>JANUARY</b>				
01	01/17 (Tuesday)	Syllabus Lecture 1a: Introduction	Syllabus, P.1, P.10, P.12	
02	01/19 (Thursday)	Lecture 1a: Introduction	P.1, P.10, P.12	
—	01/23 (Monday)	Last day to add/drop courses	—	
03	01/24 (Tuesday)	Lecture 1b: Exponential growth	W.1	
04	01/26 (Thursday)	Lecture 1b: Exponential growth	W.1	
05	01/31 (Tuesday)	Lecture 2: Periods and cohorts	W.2	
<b>FEBRUARY</b>				
06	02/02 (Thursday)	Lecture 2: Periods and cohorts	W.2	
07	02/07 (Tuesday)	Lecture 3: Cohort mortality	W.3	
08	02/09 (Thursday)	Lecture 3: Cohort mortality	W.3	
09	02/14 (Tuesday)	Lecture 3: Cohort mortality	W.3	
10	02/16 (Thursday)	Lecture 4: Cohort fertility	W.4	<b>Assignment 1</b>
11	02/21 (Tuesday)	Lecture 4: Cohort fertility	W.4	
12	02/23 (Thursday)	Lecture 4: Cohort fertility	W.4	
13	02/28 (Tuesday)	Lecture 5: Population projection	W.5	
<b>MARCH</b>				
14	03/02 (Thursday)	Lecture 5: Population projection	W.5	
15	03/07 (Tuesday)	Lecture 5: Population projection	W.5	
16	03/09 (Thursday)	Lecture 6: Period fertility	W.6	<b>Assignment 2</b>
—	03/13–17 (Mon.–Fri.)	Spring Break	—	
17	03/21 (Tuesday)	Lecture 6: Period fertility	W.6	
18	03/23 (Thursday)	Lecture 6: Period fertility	W.6	



Lecture	Date	Topic	Reading Author.chapter	Assessments due dates
<b>MARCH</b>				
19	03/28 (Tuesday)	Lecture 6: Period fertility	W.6	
20	03/30 (Thursday)	Lecture 7: Period mortality	W.7	
<b>APRIL</b>				
21	04/04 (Tuesday)	Lecture 7: Period mortality	W.7	
22	04/06 (Thursday)	Lecture 7: Period mortality	W.7	
23	04/11 (Tuesday)	Lecture 7: Period mortality	W.7	
24	04/13 (Thursday)	Lecture 10: Stable age structures	W.10	<b>Assignment 3</b>
—	04/18 (Tuesday)	Last day for all students to drop courses with no penalty (Q-drop)	—	
25	04/18 (Tuesday)	Lecture 11a: Migration measurement	W.11 and papers	
26	04/20 (Thursday)	Lecture 11a: Migration measurement	W.11 and papers	
27	04/25 (Tuesday)	Lecture 11b: Migration models	W.11 and papers	
28	04/27 (Thursday)	Lecture 11b: Migration models	W.11 and papers	
<b>MAY</b>				
—	05/02 (Tuesday)	Assignment 4 deadline	—	<b>Assignment 4</b>
29	05/09 (Tuesday)	<b>Final Exam</b>	Material from lectures 1–28	<b>Final Exam</b>

**Department of Sociology Diversity and Civility Statement**

The Department of Sociology supports Texas A&M University's commitment to diversity and welcomes individuals of all ages, citizenship, abilities, education, ethnicities, family statuses, genders, gender identities, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences (see <http://diversity.tamu.edu/>).

A key component of a university education is exposure to a wide range of ideas, viewpoints, and experiences from people of various backgrounds and fields of study. Sociology as a discipline is not a collection of ideas you must agree with; sociology is the research-driven study of our social world. As such, this course may feature content and discussions that challenge your own deeply-held beliefs. This is to be expected. This is done to encourage you, as a burgeoning social scientist, to learn to examine your beliefs and articulate why you support them. Exposure to sociological frameworks with which you may disagree will also help you gain a competency in navigating differences and discomfort, which you will continue to experience throughout your time at the university, as well as within your career.

This course supports a commitment to life-long learning through respectful and civil discourse. As this is a social science class, discussions are to be framed using rules of evidence and should always be presented in a respectful and civil manner when engaging with fellow students and the instructor. In the spirit of this vital commitment, each voice in the classroom has something of value to contribute to discussions. Everyone is expected to respect the different experiences, beliefs and values expressed by fellow students and the instructor and will engage in reasoned discussion that refrains from derogatory comments and dehumanizing language about other people, cultures, groups, or viewpoints. This applies both inside and outside of the classroom, and includes electronic venues such as GroupMe. Discussions are to be focused on the ideas presented and not the individual. This is paramount to a quality educational experience. Any action(s) that disrupt this standard will not be tolerated and the student may be asked not to participate in further discussion.

The **Student Conduct Code Rule 21** regarding classroom behavior will also be strictly enforced:

Texas A&M University supports the principle of freedom of expression for both instructors and students. The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede their exercise. Classroom behavior that seriously interferes with either (1) the instructor's ability to conduct the class or (2) the ability of other students to profit from the instructional program will not be tolerated. An individual engaging in disruptive classroom behavior may be subject to disciplinary action. See 24.4.15. (<https://student-rules.tamu.edu/rule21/>).

If a student is being disruptive or disrespectful (rude, inappropriate, unprofessional, and/or harmful to others) either in the classroom, office hours, or during class-related communications outside of lecture (online or in-person), they will receive one warning from the instructor or TA. However, if the behavior is viewed as seriously disruptive, no warning will be issued, and action will be taken. This may involve immediate removal from class. If negative behavior persists following a warning, the instructor and/or TA will request an in-person meeting with the student and Head or Associate Head of the department to discuss and document a plan for changing behavior. This plan will be signed by the student and forwarded to the Head of the Department of Sociology. Further infractions will immediately involve the Department Head and the Academic Dean (per Rule 21).

### Class participation

**I will take attendance in each class.** You are responsible for your own learning, but your actions affect the entire class. Active participation in class discussion is vital to the shared learning experience. For this to work, everyone must come prepared to class, having done the readings and come prepared to discuss the week's readings in depth. Active participation is premised on respect. Being prepared for class, listening attentively, challenging ideas and not individuals—are all markers of respect in a community of learning. Thus, I expect everyone to attend class and value each other's ideas. **Hate speech will not be tolerated.**

### Learning resources

The mission of the University Writing Center (UWC) is to help you develop and refine the communication skills vital to success in college and beyond. You can choose to work with a trained UWC peer consultant in person or via web conference or email. Consultants can help with everything from lab reports to application essays and at any stage of your process, from brainstorming to reviewing the final draft. You can also get help with public speaking, presentations, and group projects. The UWC's main location is on the second floor of Evans Library; there's also a walk-in location on the second floor of West Campus Library. To schedule an appointment or view our helpful handouts and videos, visit <http://writingcenter.tamu.edu>. Or call (979)458–1455.

### Electronic devices

During classes, laptops, tablets, and smartphones should not be used for activities that are not directly related to the course.

Examples of **activities unrelated to class** include: checking and answering email, texting, scheduling appointments, viewing videos, and viewing websites with materials unrelated to the course.

Examples of **activities related to class** include: reviewing documents and course materials posted on the web, and examining websites that are visited as part of the lecture. If the policy is not respected, I will ban all devices for non-laptop required sessions.

### Student course evaluation

Students should complete the course evaluation on <https://tamu.aefis.net/>. Students can see this [step-by-step guide](#) on how to access and respond to the student course evaluations.

### Office hours

**Office hours** are intended to assist students who are seeking help understanding course materials (lectures, readings, lab classes, etc.) and to mentor students. Office hours do not substitute for attendance in class. I will not discuss missed classes unless the student missed those classes because of an authorized excuse. University rules related to excused and unexcused absences are located online at [Student Rule 7](#). As Student Rules state: (1) it is the student's responsibility to attend class; and (2) if I used office hours to substitute for attendance in class, it would be a disservice to students who wish to use office hours to enhance their academic success.

### Late work policy

Students are not allowed to submit their course work after the due date. Work submitted by a student as makeup work for an excused absence is not considered late work and is exempted from the late work policy (see [Student Rule 7](#)).



### University policies

#### Attendance policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to [Student Rule 7](#) in its entirety for information about excused absences, including definitions, and related documentation and timelines.

#### Makeup work policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor.

Please refer to [Student Rule 7](#) in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor" ([Student Rule 7, Section 7.4.1](#)).

"The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence" ([Student Rule 7, Section 7.4.2](#)).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See [Student Rule 24](#).)

#### Academic integrity statement and policy

**"An Aggie does not lie, cheat or steal, or tolerate those who do."**

"Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one's work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case" ([Section 20.1.2.3, Student Rule 20](#)).

You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at [aggiehonor.tamu.edu](http://aggiehonor.tamu.edu).

**Americans with Disabilities Act (ADA) policy**

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact the Disability Resources office on your campus (resources listed below) Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

Disability Resources is located in the Student Services Building or at (979) 845-1637 or visit [disability.tamu.edu](http://disability.tamu.edu).

**Title IX and statement on limits to confidentiality**

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking.

With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see [University Rule 08.01.01.M1](#)):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, a person who is subjected to the alleged conduct will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University's goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.

Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with [Counseling and Psychological Services](#) (CAPS).

Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's [Title IX webpage](#).

**Statement on mental health and wellness**

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student's academic success and overall wellbeing. Students are encouraged to engage in healthy self-care by utilizing available resources and services on your campus

Students who need someone to talk to can contact Counseling & Psychological Services (CAPS) or call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org).

**COVID-19 statement**

**To help protect Aggieland and stop the spread of COVID-19, Texas A&M University urges students to be vaccinated and to wear masks in classrooms and all other academic facilities on campus, including labs.** Doing so exemplifies the Aggie Core Values of respect, leadership, integrity, and selfless service by putting community concerns above individual preferences. COVID-19 vaccines and masking — regardless of vaccination status — have been shown to be safe and effective at reducing spread to others, infection, hospitalization, and death.

If you test positive for COVID-19, you can download a flowchart for guidance and get additional information in the [page about positive test protocol](#) of the Texas A&M Health Science Center.

If you have been diagnosed with COVID-19, received a positive test result for COVID-19, or are experiencing COVID-19 symptoms, you must stay home and immediately [complete the COVID-19 Report Form](#).

**Please include information about our course** in the following question of the report form: "What in-person classes or events did you attend in person starting from 48 hours before symptoms started?"

- Class Name: Demographic Methods
- Course-Section: SOCI 633–601; SOCI 320–500
- Faculty/Instructor: Ernesto Amaral

**Extracts from Student Rule 7**

I provide below some important information extracted from Texas A&M [Student Rule 7](#). I simply follow the rules established by the university.

**From 7.1 Notification of absences**

- The student must provide notification of excused absences to the instructor in writing (e-mail is acceptable) prior to the day of absence.
- In cases where advanced notification is not possible, the student must provide notification by the end of the second business day after the last date of the absence. This notification must include an explanation of why notice could not be sent.

**From 7.2 Absences**

- Only excused absences defined by Texas A&M University are accepted (check the list on [Student Rule 7, Section 7.2.2](#)).

**From 7.3 Absence documentation and verification**

- The student is responsible for providing documentation substantiating the reason for the excused absence, including the reasons stated in Section 7.2.
- This documentation must be provided within three business days of the last date of the absence, unless otherwise stated in this rule.

**From 7.4 Make up work**

- Make-up work must be completed in a timeframe not to exceed 30 calendar days from the last day of the initial absence.

**In summary**

- *Student must submit explanation about excused absence by email to professor with attached documentation, listing the exact item within Section 7.2.2 of Student Rule 7 that refers to the absence.*