# **AEDECON 8101: Applied Welfare Economics**

# Spring 2022

# **Meeting Dates and Location:**

Lecture time: Monday and Wednesday 12:10 pm - 2:00 pm EST

Class meetings: Animal Sciences 210

Office hours: To allow maximum flexibility, office hours will be held virtually by appointment. Please email

me to schedule. Zoom: https://osu.zoom.us/my/sgopalakrishnan

#### Instructor:

Sathya Gopalakrishnan gopalakrishnan.27@osu.edu 223 Ag Admin Building

### **Course Description:**

What is welfare and how can we measure it? How can we use welfare analyses to evaluate policy and to inform public policy debates? In exploring these central questions, this course takes an applied approach to welfare economics and its application to issues of public policy. In this course, we will briefly overview the intellectual history of welfare economics and discuss key problems in applied welfare analysis including the problem of measurement, the choice of appropriate welfare criteria, and the tension between market and non-market allocation of resources.

# Credit Hours: 4 semester hours: Lecture: 110 minutes per day, 2 days per week

### **Prerequisites:**

7140; ECON 8714 and 8732; or permission of the instructor.

This course is designed for second-year PhD students in economics, agricultural, environmental and development economics, or public policy. It is assumed that students have completed at least one graduate-level course in microeconomic theory and econometrics and are comfortable with differential and integral calculus.

### **Course Format:**

To the extent possible, the course will be in-person, unless circumstances change. Course materials, assignments and exams will be posted online Ohio State's Carmen system (https://carmen.osu.edu/). This course is divided into **weekly modules**. All course requirements must be completed during the semester of offering and all assignments and exams must be completed by the due date posted on Carmen to receive credit, except in the case of documented emergencies, illness, or time zone difference.

<u>COVID-19 Exceptions</u>: Recognizing that we are all starting the Spring 22 semester under highly uncertain circumstances, my priority is to support students with a learning environment that is as safe as possible.

- If you need special accommodation for the entire semester, please contact Student Life and Disability Services (SLDS) to determine the type of accommodation you need and talk with me as soon as possible. It is not feasible to provide a complete virtual course, but I will work with you to make sure you have access to class lectures and materials. Please contact me in the first week of the semester to discuss any special needs.

- Your health and safety are most important. If you are sick or need to quarantine due to exposure, please let me know and I will work with you to make sure you have access to class lectures and materials.
- If I need to quarantine due to illness or exposure, I will inform you via Carmen/email and will either cancel class or move it to a synchronous virtual class via zoom.

Please continue to follow University guidelines and regularly monitor your email and the carmen course page for announcement if there are any changes in the guidelines. As we are all adjusting to the uncertainties that we face, I ask for your patience in the first couple of weeks to figure out technological logistics (live streaming, recording etc.).

# **Credit hours and work expectations:**

This is a **4-credit-hour course**. According to Ohio State policy, students should expect around 4 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 8 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

# **Textbooks/Readings:**

It is difficult to find a single textbook that addresses the topics of the course in sufficient detail. Below I list two books that are useful. I will make available copies of some chapters (when possible) but both books are available through the library. We will supplement the book with several journal articles that will be required reading.

We will broadly follow these books:

- o The Welfare Economics of Public Policy, by Richard Just, Darrell Hueth, and Andrew Schmitz
- o Welfare Economics, by Robin W. Boadway and Neil Bruce, Oxford, 1984.

For background in microeconomics theory and econometrics, these are good references (not required):

- Microeconomic Analysis, by Hal R. Varian, New York: Norton, 1992.
- Microeconomics: Behavior, Institutions, and Evolution, by Samuel Bowles, Princeton University Press, 2004.
- o <u>Introductory Econometrics: A Modern Approach</u>, by Jeffrey Woolridge, South-Western Cengage Learning, 2012.

## **Course Objectives:**

- To help students understand the foundational principles of welfare economics
- To provide multiple lenses through which we can address welfare questions and issues
- o To develop a greater appreciation for the potential contribution of applied social science.

### Learning Outcomes (LO):

Upon completing this course, successful students will:

- 1. Be familiar with the literature in applied welfare economics and be able to derive empirically testable welfare implications using economic theory
- 2. Be exposed to the conventional welfare economics tools to measure welfare changes and be able to properly interpret compensated welfare changes
- 3. Have the theoretical foundation and methodological tools to use welfare analysis in applied research and teach a course in this subject in the future.

## **Course technology:**

For help with your password, university e-mail, <u>Carmen</u>, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <u>OCIO Help Hours</u>, and support for urgent issues is available 24x7.

• Self-Service and Chat support: (http://ocio.osu.edu/selfservice)

• **Phone:** 614-688-HELP (4357)

Email: 8help@osu.edu
TDD: 614-688-8743

## Required equipment

Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection

Webcam: built-in or external webcam, fully installed and tested

• Microphone: built-in laptop or tablet mic or external microphone

All required readings can be accessed at <a href="https://carmen.osu.edu">https://carmen.osu.edu</a>. For help with Carmen, please contact the OSU IT Service Desk. Standard support hours are available at <a href="https://ocio.osu.edu/help/hours">https://ocio.osu.edu/help/hours</a>, and support for urgent issues is available 24/7. If you need additional services to use these technologies, please request accommodations the instructor.

### **Course Policies:**

*Class Discussions*: The classroom is a place for mutual respect. I will be prepared with the material for each class and I will expect you to be fully engaged in class. I will also post any notes from class discussions on Carmen. The class period is for exchange and discussion of the assigned material. I will assume that you have read the assigned material prior to each class period. Be ready to question, apply and extend the material.

**Weekly essays:** To further discussion, each student will prepare a number of typed, one-page journal essays based on readings. The main value of the writing is to work with the concepts and to prepare for oral discussion. It can also be one basis for evaluative feedback and therefore, at least six of these short papers will be graded at random. Since all the essays are an integral part of class discussion, late papers will not be accepted unless prior arrangements are made. The lowest grade is dropped.

Your essay should be the basis for classroom oral discussion. It is your chance to practice presentation of your ideas and questions and get professional reaction from colleagues. Your essay should not be viewed as something extra laid on the usual learning and investigation process. It should just be a written record of where your mind is in order to facilitate interaction and testing of your thinking with that of others so that growth is enhanced. Pick a major point and develop it. Don't try to cover too much ground.

Students are encouraged to keep a Journal File, which is a powerful tool of intellectual craftsmanship. I will try to reinforce the concept of documenting your reflections on readings. If successful, it will become part of your professional practice. These essays in your journal file are to practice writing. We often do not know what we think about a topic until we write out what it is that we believe and understand. It is a way of trying out ideas, putting them on paper, thus forcing you to think them through. Highlighting text is not enough. Writing is thinking!

(See guide posted on Carmen "Some Ingredients of a Good Essay" for further suggestions).

**Peer-review of research**: Students will review one working paper on a topic of your interest and prepare a referee report. Students will also present and discuss a journal article at least once during the semester.

**Literature Review**: Students will conduct a literature review on a topic of their choice that is related to topics and concepts taught in the course. This should familiarize students with what exists in the current literature as well as gaps that applied economists can work to bridge. Literature Review criteria will be provided on Carmen. Students will turn in their literature review by April 20th through Carmen.

Your written assignments should be your own original work. I will use the Turnitin tool through Carmen to ensure students are not plagiarizing the work of others.

### **Evaluation:**

ASSIGNMENT CATEGORY	POINTS
Weekly Essays	40
Peer Review and Research Presentation	30
Literature Review	30
Total	100

### **Tentative Schedule:**

## Week #1: The Big Picture: The role of institutions, power, and distribution

- Samuels, Warren, "The Legal-Economic Nexus," George Washington Law Review, 6:1556-1578 (1989).
- Robinson, Joan, Economic Philosophy, Ch. VI, "What Are the Rules of the Game," pp.124-147.
- Eggertsson, Thrainn, Economic Behavior and Institutions. (1990), Ch. 1.
- Samuel Bowles, <u>Microeconomics: Behavior, Institutions, and Evolution</u>, Princeton University Press, 2004. Prolouge.

#### **Week #2: Overview and Introduction to Welfare Economics**

- Bergson, Abram. "Pareto on social welfare." Journal of Economic Literature 21, no. 1 (1983): 40-46.
- Sen, Amartya. "The possibility of social choice." *American Economic Review* 89, no. 3 (1999): 349-378.
- Currie et al, "The Concept of Economic Surplus and its Uses in Economic Analysis." *Economic Journal* (1971): 741-99.

### Week #3-4: Three Key Problems: Measurement, Welfare Criteria, Market Failure

- Just et al. Chapters 2,3
- Chipman, John S., and James C. Moore. "The new welfare economics 1939-1974." International Economic Review (1978): 547-584.
- Arrow, "Formal Theories of Social Welfare," in Social Choice and Justice. Collected Papers of Kenneth J. Arrow. Harvard University Press. (1983): 115-32.

• Sen, "Personal Utilities and Public Judgments: Or What's Wrong with Welfare Economics?" Economic Journal (1979): 537-58.

# Week #5-6: Consumer's Surplus, Producer's Surplus, and Measures of Variation

- Just et al. Chapter 5, 6
- Boadway, Robin and Neil Bruce, Welfare Economics. Ch. 7, "The Measurement of Welfare Change for an individual".
- Varian Chapters 7-10
- Chipman, John S., and James C. Moore. "Compensating variation, consumer's surplus, and welfare." *The American Economic Review* 70, no. 5 (1980): 933-949.
- Hausman, Jerry A. "Exact consumer's surplus and deadweight loss." *The American Economic Review* 71, no. 4 (1981): 662-676.
- Willig, "Consumer's Surplus Without Apology," American Economic Review (1976): 589-97.
- Mishan, Ezra J. "What is producer's surplus?" *The American Economic Review* 58, no. 5 (1968): 1269-1282.
- Harberger, A. C. "Three Basic Postulates for Applied Welfare Economics: An Interpretive Essay." J. Econ. Lit. 9(1971):785-797.

### Week #6: Willingness to pay vs willingness to accept

- Hanemann, W. Michael. "Willingness to pay and willingness to accept: how much can they differ?." *The American Economic Review* 81, no. 3 (1991): 635-647.
- Horowitz, John K., and Kenneth E. McConnell. "Willingness to accept, willingness to pay and the income effect." *Journal of Economic Behavior & Organization* 51, no. 4 (2003): 537-545.
- List, John A. "Does market experience eliminate market anomalies?." *The Quarterly Journal of Economics* 118, no. 1 (2003): 41-71.

### Week #7: Theory of the Second Best, and Intertemporal Allocations

- Davis and Whinston, "Welfare Economics and the Theory of Second Best," Review of Economics Studies (January 1965): 1-14.
- Pope, Chavas and Just, "Economic Welfare Evaluations for Producers under Uncertainty," American Journal of Agricultural Economics (Feb., 1983): 98-107.
- Boadway, Robin and Neil Bruce, Welfare Economics. Ch. 9, "Measuring Welfare Changes in a Many-Consumer Economy,".
- Stiglitz, Joseph, "The Causes and Consequences of the Dependence of Quality on Price," Journal of Economic Literature, March 1987.

# Week #8-9: Market Failure, Externalities, and Public Goods

- Davis and Whinston, "Externalities, Welfare and the Theory of Games," Journal of Political Economy (1962): 241-62.
- Randall, "The Problem of Market Failure," Natural Resources Journal, Vol. 23, No.1, (1983): 131-48.
- Coase, "The Problem of Social Cost," Journal of Law and Economics 3(Oct. 1960):1-44.
- Schelling, "Hockey Helmets, Concealed Weapons and Daylight Savings: A Study of Binary Choice with Externalities." Journal of Conflict Resolution 17 (September 1973): 381-428.
- Marchand and Russell, "Externalities, Liability, Separability and Resource Allocation," American Economic Review (Sept., 1973): 611-20.
- Samuelson, Paul A., "The Pure Theory of Public Expenditure," Review of Economics and Statistics, 36 (1954), 387-89.
- Bergstrom, Theodore, Lawrence Blume, and Hal Varian, "On the Private Provision of Public Goods," Journal of Public Economics, 79 (1986), 25-49.

### Week #10-11: Distribution and Social Choice

- Sen, Amartya, "Real National Income Accounting," Review of Economic Studies, 43 (Feb. 1976), 19-39.
- Blin and Satterthwaite, "Individual Decisions and Group Decisions: The Fundamental Differences," Journal of Public Economics 10(2)(1978): 247-67.
- Hansson, "The Independence Condition in the Theory of Social Choice," Theory and Decision 4(1)(1973): 25-50.
- Kotlikoff, et. al. "Social Contracts as Assets: A Possible Solution to the Time Consistency Problem," American Economic Review (Sept. 1988): 662-677.
- Chavas, Jean-Paul and Jay S. Coggins, "On Fairness and Welfare Analysis UnderUncertainty," Social Choice and Welfare, 20 (2003), 203-228.
- Hammond, "Equity, Arrow's Conditions and Rawl's Difference Principle," Econometrica (1976): 793-804.
- Schelling, "Self-Command in Practice, in Policy, and in a Theory of Rational Choice," American Economic Review (May, 1984): 1-11.
- Pazner, Elisha A. and David Schmeidler, "Egalitarian Equivalent Allocations: A New Concept of Economic Equity," Quarterly Journal of Economics, 92 (1978), 671-687.

### Weeks #12-14: Additional Topics (based on students' interest)

- General Equilibrium
- Non-market valuation and welfare analysis
- Property Rights and Development Policy
- Valuation of non-marginal projects, over time and to whom
- Institutional change

### UNIVERSITY POLICIES: (See https://ugeducation.osu.edu/faculty-and-staff-resources for details)

#### **Academic Misconduct:**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct at Student Life http://studentconduct.osu.edu.

## Ohio State's academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute "Academic Misconduct."

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an "excuse" for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages (COAM Home)
- Ten Suggestions for Preserving Academic Integrity (Ten Suggestions)
- Eight Cardinal Rules of Academic Integrity (www.northwestern.edu/uacc/8cards.htm)

#### **Copyright disclaimer**

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

**Intellectual Property** (covered by copyright) includes Course materials (Text, Audio, Video, Multimedia, Sims, Apps, etc.), and Student Generated materials

### Safe and Healthy Buckeyes:

Health and safety requirements: All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<a href="https://safeandhealthy.osu.edu">https://safeandhealthy.osu.edu</a>), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Noncompliance will result in a warning first, and disciplinary actions will be taken for repeated offenses."

### **Disability Services:**

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: <a href="mailto:slds@osu.edu">slds@osu.edu</a>; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

### **Requesting accommodations**

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential. In addition to contacting the instructor, please contact the Student Life Disability Services at 614-292-3307 or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University. Go to Office of Student Life - Disability Services for more information.

### Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- Carmen (Canvas) accessibility
- Streaming audio and video
- Synchronous course tools
- Overview of Accessibility at OSU

If you require specific software for the course list or provide a link to the software's accessibility privacy statements

- Adobe Connect (Carmen Connect) Accessibility Adobe Privacy Policy
- MediaSite Accessibility Statement
- Microsoft Office Accessibility Microsoft Office 365 Privacy
- Proctorio Accessibility Proctorio Privacy
- Top Hat Accessibility Top Hat Privacy

#### **UNIVERSITY RESOURCES:**

### **Counseling and Consultation Services:**

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling (614) 292- 5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24 hour emergency help is also available through the 24/7 National Prevention Hotline at 1-(800)-273-TALK or at suicidepreventionlifeline.org.

David Wirt, <u>wirt.9@osu.edu</u>, is the CFAES embedded mental health counselor. He is available for new consultations and to establish routine care. To schedule with David, please call 614-292-5766. Students should mention their affiliation with CFAES when setting up a phone screening.

### Creating an environment free from harassment, discrimination, and sexual misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

- o Online reporting form at equity.osu.edu,
- o Call 614-247-5838 or TTY 614-688-8605,
- Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human

resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

This course adheres to The Principles of Community adopted by the College of Food, Agricultural, and Environmental Sciences. These principles are located on the Carmen site for this course; and can also be found at https://go.osu.edu/principlesofcommunity. For additional information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (https://equityandinclusion.cfaes.ohio-state.edu/). If you have been a victim of or a witness to a bias choose) incident, you can report it online and anonymously (if you at https://studentlife.osu.edu/bias/report-a-bias-incident.aspx.