# Applied Economics

Department Information

- **Department Location:**
  500 Barry Hall
- **Department Phone:**
  (701) 231-7441
- **Department Email:**
  ndsu.agribusiness@ndsu.edu
- **Department Web Site:**
  www.ag.ndsu.edu/agecon/ (http://www.ag.ndsu.edu/agecon/)
- **Credential Offered:**
  Ph.D.
- **Test Requirement:**
  GRE
- **English Proficiency Requirements:**
  TOEFL iBT 79, IELTS 6.5, Duolingo 105

The Applied Economics Doctor of Philosophy (Ph.D.) degree program is outcome based. The program will leverage the strength areas of the Department of Agribusiness and Applied Economics (AAE) in applied risk analysis and institutions (leveraging the graduate certificate in New Institutional Social Science) while maintaining flexibility to provide for a variety of student specializations. The program will offer 15 credits of core classes with the remaining 75 credits being earned through other credit-based academic activity that may or may not include didactic coursework.

## Admission requirements

To be considered for admission, applicants must

- have earned a 150 score or above on the quantitative portion of the GRE
- have demonstrated mathematical competency in multivariate calculus, linear (matrix) algebra, and calculus based probability theory
- have completed a Bachelor of Science or Master of Science degree in Economics, Agricultural Economics, or a related discipline and have a cumulative GPA of 3.0 or above

## Financial Assistance

Granting assistantships depends on academic performance, departmental needs, and availability of assistantships. To be considered for a Graduate Research Assistantship (GRA) or Graduate Teaching Assistantship (GTA) applicants must obtain a 155 or above on the quantitative portion of the GRE. Assistantships do not begin until the first semester of full graduate standing when courses that apply for the Ph.D. degree are taken.

Students with an assistantship perform research or teaching duties in the department and are paid a monthly stipend. Most assistantships are full-time (20 hours per week) or half-time (10 hours per week). In addition to the stipend, students may receive a graduate tuition waiver. Tuition waivers cover base tuition for NDSU graduate credits only. Students are responsible for differential tuition, student fees, and tuition for non-graduate level credits taken or Cooperative Education credits.

The student and major adviser prepare a plan of study by the end of the first year in residence that contains no less than 90 credits as required by the Graduate College. Of these credits, 15 are core courses and will include:

1. six credits in microeconomic theory: New courses ECON 841 and ECON 842
2. three credits in macroeconomic theory: existing course AGEC 743
3. six credits in econometrics. New courses ECON 810 and ECON 811

The remaining credits are tailored to the student and can be earned through any credit-based academic activity.

Before advancement to candidacy, a student must complete preliminary exams in economic theory and methods following the first year in residence. Mastery of at least one pre-approved field of applied economics will be demonstrated by:

1. capacity to synthesize important economic literature in the field;
2. demonstrated capacity to master key methods in the field; and
3. capacity to produce original research in the field.

Specific field-level learning objectives and methods will be approved by the Department of Agribusiness and Applied Economics prior to the student's first semester in the program.

All students pursuing a Ph.D. Applied Economics must complete all core courses. Students select elective courses (with approval of the adviser and supervisory committee) to fulfill the remaining Graduate College credit requirements.

It is required that students have demonstrated mathematical competency in multivariate calculus, linear (matrix) algebra, and calculus based probability theory. These can be demonstrated by completion of the following courses at NDSU (or their equivalent at another university):  Math 259 or Math 265, Math 129, and Stat 367. Alternatively, a student can demonstrate the required mathematical competency by completing an approved course in Mathematical Economics (or Mathematics for Economics) equivalent to ECON 499/699 at NDSU.

**David Bullock, Ph.D.**
Iowa State University, 1989
Research Interests: Futures and Options Markets, Over-The-Counter Derivatives, Trading, Risk Management, Agrifinance, Monte Carlo Simulation, and Big Data Applications in Agriculture

**James Caton, Ph.D**.
George Mason University, 2016
Research Interests: Entrepreneurship Agent-based Computational Economics, Market Process Theory, Monetary Economics

**Erik Hanson, Ph.D.**
University of Minnesota, 2016
Research Interests: Agricultural Finance, Farm Management, Marketing and Production Economics

**Ron Haugen, M.S.**
North Dakota State University, 1989
Research Interests: Farm Management

**Robert Hearne, Ph.D.**
University of Minnesota, 1995
Research Interests: Natural Resource and Environmental Economics

**Jeremy Jackson, Ph.D.**
Washington University in St. Louis, 2008
Research Interests: Microeconomics, Political Economy, Public Finance

**Thomas Krumel, Ph.D.**
University of Connecticut, 2020
Research Interests: Rural Development, Labor Demand, and Labor Market Skills Mismatch

**Kerianne Lawson, Ph.D.**
West Virginia University, 2021
Research Interests: Economic Development, Economic Freedom, Law and Economics, Energy Economics

**Siew Hoon Lim, Ph.D.**
University of Georgia, 2005
Research Interests: Production Economics, Transportation, Industrial Organization

**Raymond March, Ph.D.**
Texas Tech University, 2017
Research Interests: Public and Private Provision and Governance of Health Care in the United States

**Dragan Miljkovic, Ph.D.**
University of Illinois, 1996
Research Interests: Agricultural Prices, International Trade, Agricultural and Food Marketing and Policy

**William Nganje, Ph.D.**
University of Illiniois at Urbana-Champaign, 1999
Research Interests: Agricultural Finance, Food Safety Economics

**Frayne Olson, Ph.D.**
University of Missouri, 2007
Research Interests: Crop Marketing Strategies, Crop Supply Chain Management, Agricultural Contracting, Agricultural Risk Management

**Bryon Parman, Ph.D.**
Kansas State University, 2013

Research Interests:  Whole Farm and Agribusiness Financial Structure, Risk Management, Land Values and Rents, and Farm Financial Trends

**Timothy Petry, M.S.**
North Dakota State University, 1973
Research interests: Livestock Marketing

**Xudong Rao, Ph.D.**
University of Minnesota, 2015
Research Interests:  Farm and Agribusiness Management, Risk Analysis, Efficiency and Productivity, Technology Adoption, Food and Agricultural Policy, International Agricultural Development

**Veeshan Rayamajhee, Ph.D.**
University of New Mexico, 2019
Research Interests:  Individual and Collective Responses to Covariate Shocks

**David Ripplinger, Ph.D.**
North Dakota State University, 2011
Research Interests: Production Economics and Marketing

**David Roberts, Ph.D.**
Oklahoma State University, 2009
Research Interests: Natural Resource and Environmental Economics, Econometrics, Production Agriculture

**Anupa Sharma, Ph.D.**
Virginia Polytechnic Institute and State University, 2016
Research Interests: Economics, Agriculture Business and Management

**Cheryl J. Wachenheim, Ph.D.**
Michigan State University, 1994
Research Interests: Agribusiness

**William W. Wilson, Ph.D.**
University of Manitoba, 1980
Research Interests: Commodity Marketing, Agribusiness, Industrial Organization