All students pursuing a Ph.D. in Applied Economics must complete all core courses in microeconomics, macroeconomics, and econometrics. Students select elective courses (with approval of the adviser and supervisory committee) to fulfill the remaining Graduate College credit requirements. To progress to the second year of the doctoral program, students must successfully complete qualifying exams in both microeconomics and econometrics.

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. Additionally, 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.

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 439/639 at NDSU.