Biomass-to-Biofuel Pathways

ABE 691 (time and location: TBA) CRN: 60794

3 credits – Spring 2012

Instructors: Nathan Mosier and John Sutherland – other faculty members from across Purdue have expressed an interest in supporting the effort

With continued public and private interests in biofuels, this course will focus on developing an up-to-date comparative review of biomass-to-biofuel production pathways. In this course, small teams of graduate students (or exceptional undergraduate students) will conduct independent investigations on various biomass feedstocks and biofuel production methods. These investigations will emphasize the technical details and economic potential of various feedstock-to-production pathway combinations. There is a possibility that the student-generated work will form the basis for a book. Faculty mentors will support the efforts of the students and help to edit the students' work product.

Students will develop skills in reading and writing reviews of current literature, with an opportunity to publish their work. Because a target audience of the book will be engineering and consulting firms, students may also gain exposure to potential employers. Total enrollment will be limited to 25 students.

Prerequisites: Students should have some background knowledge of biofuels technologies and/or economics, have good written communications skills, and be willing to work in groups.