

BIORENEWABLE SYSTEMS

Learning Outcomes

Master of Science (M.S.)

1. Know: Graduates will demonstrate knowledge of the chemistry, structure-property relationships and industrial applications of biobased polymers.
2. Critical and analytical thinking: Graduates will be able to critically and creatively conceptualize and evaluate biorenewable industrial problem formulations, analyses, and solutions.
3. Apply/Create: Graduates will demonstrate proficiency in biorenewable industry problem formulation, planning, organization and implementation of appropriate methods of analyses and solutions.
4. Communicate: Graduates will be able to effectively communicate technical knowledge, including ideas, data analysis, findings, or decision justification in written and oral presentation appropriate to the audience.
5. Professional practice: Graduates will be able to apply analytical skills for effective decision making in the biorenewable resource industries.

Doctor of Philosophy (Ph.D.)

1. Know: Graduates will demonstrate knowledge of the chemistry, structure-property relationships and industrial applications of biobased polymers.
2. Create: Graduates will demonstrate knowledge of one or more of the following: engineering technologies, science, safety, marketing, business, or management principles and methodologies as they pertain to biorenewable systems.
3. Apply: Graduates will be able to communicate, both orally and in-writing, business and/or technical concepts within the context of biorenewable industries. Graduates will be able to analyze and interpret data and demonstrate an ability to draw sound conclusions from data.
4. Critical and analytical thinking: Graduates will be able to independently analyze and critique motivations for conducting research, the research process, research results, and the implications of research and its results to our world.
5. Communicate: Graduates will be able to actively listen, convey accurately and clearly ideas and results both orally and in writing, and engage in positive, effective deliberation.
6. Professional practice: Graduates will be prepared to become leaders in our society by being able to apply systems analysis skills for effective decision making in the operations and/or management of biorenewable resource industries.