

Program Learning Outcomes for SAF Accreditation

Virginia Tech Dept. of Forest Resources and Environmental Conservation

FREC Degree

1. Students will be able to identify native and naturalized woody plants.
2. Students will be able to measure and quantify forest and environmental resources.
3. Students will recognize natural resource management as a system that integrates human needs, desires, and preferences with the ecological dynamics of natural systems.
4. Students will be able to apply forest ecology principles.
5. Students will be able to apply principles of policy analysis to issues related to forest and environmental resources.

Forestry Major

1. Students will be able to identify native and naturalized woody plants
2. Students will be able to measure and quantify forest resources
3. Students will be able to apply forest ecology and silvicultural principles to assessment and management of forests and associated resources
4. Students will be able to engage in comprehensive forest management planning that recognizes forest resource management as a system that integrates human needs, desires, and preferences with the ecological dynamics of forest systems
5. Students will be able to apply principles of policy analysis to issues related to forest resources
6. Students will be able to demonstrate understanding and apply professional ethics, skills, and conduct in the context of managing forest resources

FRM Option

1. Students will be able to assess soil and watershed impacts and institute mitigations of forest management activities
2. Students will be able to assess outdoor recreation impacts and institute mitigations of forest management activities

FOB Option

1. Students will be able to analyze and evaluate harvesting equipment and systems design, application, and productivity.
2. Students will be able to evaluate financial (business) performance of various forestry activities (forest management systems, forest harvesting systems).

UCF Option

1. Students will be able to identify and evaluate causes of disturbance and degradation of urban forest ecosystems to anticipate management needs and priorities.
2. Students will be able to select and implement appropriate methods and technologies to assess urban forests, their benefits, and their values.
3. Students will be able to recommend policy and management interventions to meet community-informed objectives for urban forest equity, sustainability, and performance.