Standard 8D: Forest Operations

**Principle:** Forest operations management develops the skills to balance ecological, social and economic demands with the need to develop operational plans including access, harvest and post-disturbance mitigation plans that are both operationally efficient and cost effective.

**Demonstrable Competencies and Competency Elements**
Graduates of an accredited forestry program shall be able to:

**8D.1 Discuss the forest management process, and its requirements and levels.**
- Components of the forest management process
- Purpose of forest management planning
- Domestic and global trends
- Concepts and applications of sustainability
- Strategic, tactical and operational planning levels

**8D.2 Discuss purpose and components of forest planning.**
- Forest values (ecological, social, and economic)
- Legal and policy requirements
- Current stand and forest-level conditions
- Management objectives and constraints
- Stand-level actions (silviculture) and forest-level scenarios to attain different management objectives
- Stand-level projection models
- Landscape/forest-level projection models
- Harvest methods for variable terrain and timber types

**8D.3 Design forest road systems and road crossing implementation strategies.**
- Access management and planning
- Legal requirements for access to public highways and wetland, stream and river crossings
- Road design and crossing design (bridges, culverts)
- Operational constraints of road and crossing design
- Economics of road and crossing design
- Road and crossing design safety
- Options for road and crossing design under a variety of terrain and soil conditions including unstable terrain
- Options for road and crossing inspections

**8D.4 Develop operational plans.**
- Stakeholder consultation
- Operational objectives
- Economics of timber extraction
- Harvest strategies, roads, crossings, production and delivery schedules (may include stand establishment and tending)
- Safety considerations for workers and the public
- Performance measurement criteria and methodologies