

ForEM Learning Outcomes for BScF and BScENR Degree Programmes

(Sept. 2018)

DISCIPLINE-RELATED COMPETENCIES (DC)

A. Environmental and Natural Resource Management

1. System¹ Functioning

- a. Describe properties, structure, and functioning of biotic elements of systems.
- b. Describe properties, structure, and functioning of abiotic elements of systems.
- c. Describe and characterize properties and structures of various social, economic, cultural and governance systems within which environment and natural resource management occur.
- d. Describe interactions and connections between biotic, abiotic and social elements of systems.

2. System Characterization & Dynamics

- a. Characterize system conditions in meaningful terms and using appropriate technology and define indicators in terms of the social, economic and environmental dimensions for which the system is valued.
- b. Forecast system change through time, across spatial scales and under natural and human disturbances.

3. Strategy Design & Evaluation

- a. Design, present, and defend implementable policies and management strategies aimed at achieving multiple goals for the system embracing social, economic, and environmental values.
- b. Identify and explain trade-offs between alternative management approaches.
- c. Evaluate economic, environmental, and social consequences of a resource management strategy.

B. Environmental and Natural Resource Awareness

- a. Advance and defend commitment to environmental and natural resource sustainability and recognize the need for an appropriate mix between utilization, conservation, and protection.
- b. Be aware of major environmental and natural resource issues, explain their importance, and identify key challenges to addressing them.
- c. Co-operate with parties (government, industry, municipalities, environmental interest organizations, indigenous peoples, and the public) in formulating environmental and natural resource awareness and education programs, policies, services, and best management practices.

¹ "System" is used in this document as an all-encompassing term that includes among other things, forests, watersheds, wildlife populations, as well as social, political, economic and cultural system, and the integration of them.

C. Environmental and Natural Resource Information Acquisition & Management

1. Information Acquisition

- a. Use basic equipment, navigational tools, and appropriate information sources to gather data and work safely and effectively.
- b. Effectively and efficiently find reliable information relevant to any issue in question.

2. Data Analysis and Management

- a. Apply quantitative, qualitative and mixed data analysis, modelling, and management tools correctly and efficiently in support of environment and natural resource policy analysis and management.
- b. Manage data (collate, store, retrieve, manipulate) effectively and efficiently

PROFESSIONAL-RELATED COMPETENCIES (PC)

1. Problem Solving

- a. Apply a structured approach to define problems and to research, design, implement, and evaluate solutions.

2. Communication

- a. Communicate effectively using oral delivery for a variety of audiences.
- b. Communicate effectively using written delivery for a variety of audiences.

3. Critical Thinking

- a. Apply principles of logic and critical reasoning to formulate and evaluate arguments, opinions, and positions.
- b. Conduct inquiry using logical, critical, and creative thinking.

4. Team Work

- a. Work effectively as member of a team.
- b. Assume appropriate role in work situation.

5. Project Management

- a. Use basic organizational principles to budget, schedule, implement, and monitor projects and to promote continuous improvement.
- b. Conduct appropriate analysis to evaluate and manage projects.

CHARACTER AND COMPONENT (CC)

1. Personal Conduct

- a. Be respectful, ethical, and accountable.

2. Time Management

- a. Budget time & monitor effectively.

3. Attitudes

- a. Accept challenges willingly (with an "I want to and I can" attitude), take action, be thoughtful.