

Revised ELOs 2020 for **M.Sc. Science and Technology Education**

Revised ELOs	Sub-ELOs
ELO 1: Display moral and ethical behavior for science and technology educators	<p>1.1 Display moral and ethical behavior that aligns with the code of conduct for science and technology educators</p> <p>1.2 Follow the ethical code of conduct in educational research</p>
ELO 2: Apply principle in science and technology education to design and implement learning activities in science and/or technology classes appropriately	<p>2.1 Adopt instructional sciences to improve learning in science and technology education</p> <p>2.2 Design learning activities for science and/or technology classes</p> <p>2.3 Implement the designed activities to improve learning in science and technology education</p> <p>2.4 Evaluate students' learning achievement</p>
ELO 3: Synthesize solutions to learning problems in the field of study	<p>3.1 Analyze learning problems in the field of study</p> <p>3.2 Apply ELO 2 to synthesize new ways and/or means to solve the learning problems</p>
ELO 4: Conduct science and technology education research by integrating knowledge in the field of study	<p>4.1 Propose a research project in science and technology education predicated on educational research methodology</p> <p>4.2 Conduct science and technology education research</p> <p>4.3 Publish an international peer-reviewed research article</p>

<p>ELO 5: Improve innovations in science and technology education consistent to knowledge in the field of study and social contexts</p>	<p>5.1 Display ability to search for existing innovations in science and technology education consistent to knowledge in the field of study</p> <p>5.2 Analyze strengths and weaknesses of the existing innovation</p> <p>5.3 Propose ways and/or means to improve the existing innovation</p> <p>5.4 Use the improved innovation for others' benefits and/or applicable to social contexts</p>
<p>ELO 6: Evaluate knowledge of oneself</p>	<p>6.1 Classify criteria for self-evaluation</p> <p>6.2 Reflect oneself against the criteria</p> <p>6.3 Evaluate oneself validly and reliably</p>
<p>ELO 7: Display the ability to control and improve oneself</p>	<p>7.1 Display the ability to control oneself</p> <p>7.2 Display the ability to improve oneself</p>
<p>ELO 8: Display leadership quality and ability to effectively collaborate with others</p>	<p>8.1 Display leadership quality to effectively collaborate with others</p> <p>8.2 Display ability to effectively collaborate with others</p>