Attribute	Performance indicators ("_____ graduates from UWaterloo should be able to…")
Knowledge Base	1a. **Demonstrate** understanding of concepts in mathematics 1b. **Demonstrate** understanding of concepts in natural science 1c. **Demonstrate** understanding of engineering fundamentals 1d. **Demonstrate** understanding of specialized engineering knowledge
Problem Analysis	2a. **Formulate** a problem statement 2b. **Develop** models to **solve** engineering problems including identifying approximations, assumptions and constraints 2c. **Critically evaluate** solutions of engineering problems
Investigation	3a. **Create**[1] investigative studies of complex engineering problems 3b. **Gather** information from relevant sources[2] to address complex engineering problems 3c. **Synthesize** information from multiple sources to reach valid conclusions
Design[3]	4a. **Define** design requirements and specifications for complex, open-ended engineering problems[4] 4b. Critically **evaluate** and **compare** design choices 4c. **Generate** and **refine** potential solutions to complex, open-ended design problems
Use of Engineering Tools	5a. **Select** appropriate engineering tools[5], **considering** their limitations 5b. **Modify** and/or **create** appropriate engineering tools, **identifying** their limitations 5c. **Use** engineering tools appropriately
Individual and Team Work	6a. **Contribute** as an active team member or leader[6] to complete individual tasks 6b. **Collaborate** with others to complete tasks effectively[7] as a team
Communication skills	7a. Orally **present** information within the profession and to society at large 7b. **Communicate** in a written format within the profession and to society at large 7c. **Interpret** information, including instructions
Professionalism	8a. **Articulate** the roles and responsibilities of the professional engineer in society with reference to the **protection** of the public and its interest. 8b. **Describe** the importance of codes, standards, best practices, laws, and regulations within engineering.
Impact of Engineering	9a. **Identify** the relevance of and uncertainty associated with the different aspects (social, cultural, economic, health, safety, legal, environmental), of an engineering project. 9b. **Analyze** the social, health, safety, and environmental aspects of an engineering project, incorporating sustainability considerations and environmental stewardship in making decisions.
Ethics & Equity	10a. **Identify** ethical and unethical behavior in professional situations 10b. **Identify** how an engineer is accountable to multiple stakeholders in engineering practice. 10c. **Identify** equitable and inequitable situations or behaviors
Economics & Project Management	11a. **Apply** project management techniques and other business practices in engineering projects, with attention to risk and change. 11b. **Perform** economic analyses of engineering projects with attention to uncertainty and limitations.
Life-long Learning	12a. **Identify** gaps in their knowledge, skills and abilities 12b. **Obtain** and **evaluate** information or training from appropriate sources 12c. **Reflect** on the use of information or training received

[1] Identifying factors that affect a system, and planning studies/experiments to determine their relationships
[2] Experiments, field data, literature, and other sources
[3] The design process can be iterative and may require going back and forth between any of these performance indicators
[4] Including health and safety risks, applicable codes/standards, economic, environmental, cultural, and societal considerations as appropriate
[5] 'Tools' is defined broadly, to include physical tools and to also include software, hardware, techniques
[6] A leader can lead by example, not necessarily in the leadership role
[7] Effective collaboration includes conflict management and fair distribution of tasks