August 1st, 2023

**Senior Design Oral Presentation Evaluation\_Proposed Revision**

1. Demonstrated ability to identify, formulate, and solve complex engineering problems (including those associated with the interaction between living and nonliving systems) by applying principles of engineering, physical (calculus based physics, chemistry) and life sciences (biology, human physiology), and mathematics (through differential equations and statistics). **(1-10)**
2. Demonstrated ability to apply engineering design to realize/produce solutions that meet specified biomedical engineering problems and needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. **(1-10)**
3. Demonstrated ability to communicate effectively with a range of audiences. **(1-10)**
4. Demonstrated ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, health, safety, and societal contexts. **(1-10)**
5. Demonstrated ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. **(1-10)**
6. Demonstrated ability to develop and conduct appropriate experimentation to measure, analyze and interpret data from living and non-living systems, and use engineering judgment to draw conclusions. **(1-10)**
7. Demonstrated ability to acquire new knowledge as needed, using appropriate learning strategies in acquiring techniques and skills necessary for biomedical engineering practice; including the ability to model and perform engineering analyses of biomedical devices, systems, components, and processes. **(1-10)**
8. Demonstrated ability to effectively engage multiple constituencies including patients, sponsors, suppliers, fabricators, technical support entities, and identify and leverage resources locally, nationally, and internationally as needed. **(1-10)**
9. Demonstrated effective project planning, management and execution and the ability to predict and navigate challenges and obstacles to the project, and the ability to formulate and implement effective and appropriate contingencies. **(1-10)**
10. Demonstrated understanding and implementation of current medical device product/process development process, including clear identification of clinical needs, corresponding market requirements, design inputs, design thinking and design progression, including development of design concepts, computer modeling and simulations for performance prediction, manufacturing, verification, and documentation procedures. **(1-10)**