CHEMICAL ENGINEERING, PHD

for the degree of Doctor of Philosophy in Chemical Engineering

1. Knowledge of the concepts and problem-solving skills in mathematics, science, and engineering that are relevant to identifying, formulating, and solving defined research problems in the field of chemical and biomolecular engineering.

2. Ability to clearly and persuasively communicate (orally and in writing) the motivation for a research project, relevant scientific and engineering concepts, approach, experimental data, data interpretation, conclusions drawn from the research, and the significance of the findings to both experts in the field and non-expert scientists and engineers.

3. Ability to develop and conduct appropriate experimentation or computer simulation, analyze and interpret data, and use engineering judgment to draw conclusions.

4. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.