

Course Assessment Matrix - **CBEN**

CRN

5/10

	CHEN 1211 Chemistry for Engineers	CHEN 1300 Intro to Chemical Engineering	CHEN 2120 Material & Energy Balances	CHEN 2810 Biology for Engineers	CHEN 3010 Applied Data Analysis	CHEN 3130 Junior Lab	CHEN 3200 Fluids	CHEN 3210 Heat Transfer	CHEN 3220 Separations & Mass Transfer	CHEN 3320 Thermodynamics	CHEN 4090 Senior Seminar	CHEN 4520 Design	CHEN 4530 Design Project	CHEN 4570 Control	CHEN 4805 Biomaterials	CHEN 4810 Biological Engineering Lab	CHEN 4820 Bioseparations	CHEN 4830 Biokinetics	FOCUS TECH (CHEN 4801 Pharmaceutical Biotech, CHEN 4838 Tissue Engineering, or CHEN 4838 Metabolic Engineering)
a) an ability to apply knowledge of mathematics, science, and engineering.	X		X	X			X	X	X	X					X		X	X	
b) an ability to design and conduct experiments, as well as to analyze and interpret data.	X				X	X								X		X			
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.							X	X	X			X	X	X			X	X	
d) an ability to function on multidisciplinary teams.						X							X			X			
e) an ability to identify, formulate, and solve engineering problems.			X		X		X	X	X	X		X		X			X	X	
f) an understanding of professional and ethical responsibility.		X									X	X							
g) the appropriate written and verbal communication skills required to communicate effectively.						X						X	X			X			
h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.		X									X							X	
i) a recognition of the need for, and an ability to engage in life-long learning.											X								
j) a knowledge of contemporary issues.		X		X							X	X							
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.					X							X	X	X					
l) an ability to apply engineering to biological systems.																X	X	X	X
m) a knowledge of advanced biological concepts.															X			X	X