

# CERTIFICATE IN PHARMACEUTICAL ENGINEERING

This program develops, expands, and refines skills to advance the technology of prescription drug development and manufacturing. Fundamentals of pharmaceutical engineering, drug delivery systems, and regulatory issues are presented.

Gainful Employment Disclosure for Certificate in Pharmaceutical Engineering

## Curriculum

A minimum of four courses (12 credit hours) are required for this certificate.

Code	Title	Credit Hours
<b>Required Courses</b>		<b>(12)</b>
CHE 583	Pharmaceutical Engineering	3
CHE 585	Drug Delivery	3
Select 6 credit hours from the following courses:		6
BIOL 515	Molecular Biology	3
BME 516	Biotechnology for Engineers	3
BME 525	Introduction to Medical Device	3
CHE 426	Statistical Tools Engineers	3
CHE 501	Transport Phenomena	3
CHE 506	Entrepreneurship & IP Mgmt	3
CHE 508	Process Dsgn Optimization	3
CHE 514	Process Analytical Technology	3
CHE 516	Tech for Treatment of Diabetes	3
CHE 525	Chemical Reaction Engineering	3
CHE 535	Applctn Math Cheml Engrg	3
CHE 538	Polymerization Reaction Engrg	3
CHE 545	Metabolic Engineering	3
CHE 560	Ststcl Qlty Process Control	3
CHE 577	Bioprocess Engineering	3
CHE 580	Biomaterials	3
CHE 582	Intfcl Clldl Phnmna Applctn	3
CHEM 519	Good Manufacturing Practices	3
MMAE 556	Nano Manufacturing	3
MMAE 561	Solidification & Crystal Grwth	3
<b>Total Credit Hours</b>		<b>12</b>