

## Class of 2024 Graduation Requirements

# Postbaccalaureate Pre-PA Certificate (PPA)

Students in the PPA program are required to complete a total of 24.0 credits including of 3.0 credits of required course and 21.0 credits of general electives which may include introductory or advanced science or management courses and capstone opportunities (Team Masters Project or Independent Research).

### Program Requirements

Core Requirements	Credits
PDEV 5400 Premedical Professional Development	1.5
Electives (May include capstone option)	21.0
<b>Subtotal</b>	<b>24.0</b>

### Elective Courses

Elective courses available to PPA students include all the core and advanced electives courses in the MBS program. Courses may have pre-requisites. If you are thinking of returning for master's degree, then consider the options below.

Core MBS Courses	Credits
SCI 5000 Molecular Biotechnology	1.5
ENG 5160 Introduction to Bioprocessing	1.5
SCI 5300 Pharmaceutical Discovery	1.5
SCI 5310 Pharmaceutical Development	1.5
PDEV 5220 Bioindustry Ethics and Society	1.5
BUS 5100 Finance and Accounting Principles	1.5
BUS 5110 Corporate Finance	3.0
BUS 5300 Competitive Strategy	3.0
BUS 5000 Intro to Bioscience Industries	3.0
REG 5000 Intro to US Food and Drug Law	1.5

Business Courses	Credits
BUS 6600 Business Operations	3.0
BUS 6410 Leadership in Organizations	3.0
BUS 6400 Organizational Behavior	3.0
BUS 5200 Healthcare Economics	3.0
BUS 6310 International Business	3.0
BUS 6500 Marketing Management	3.0
BUS 6320 Managing Strategic Alliances	3.0
BUS 6710 Biotechnology Entrepreneurship	3.0
BUS 6730 Applied Entrepreneurship	3.0
MATH 6510 Marketing Analytics	1.5
BUS 6330 Intellectual Property Strategy	1.5
BUS 6120 Valuation in Applied Life Science	1.5
BUS 6220 Drug Pricing and Reimbursement	1.5

Technical Courses	Credits
<b>SCI 6310</b> Biotechnology-Based Therapeutics	3.0
<b>SCI 6311</b> Molecular Basis of Disease	3.0
<b>ENG 6310</b> Drug Delivery Devices	1.5
<b>ENG 6320</b> Biosensors	1.5
<b>SCI 6100</b> Pharmacogenetics and Precision Medicine	3.0
<b>SCI 6700</b> Advanced In Vitro Diagnostics	3.0
<b>SCI 6710</b> Technologies for Biomarker and Drug Discovery	1.5
<b>ENG 5121</b> Microbial Fermentation Laboratory	1.5
<b>MATH 5140</b> Bioinformatics in R	1.5
<b>Math 5110</b> Biosignal Processing	1.5
<b>REG 5311</b> Biopharmaceutical Quality Assurance and Control	1.5
<b>REG 5312</b> Chemistry, Manufacturing, and Controls Regulation of Pharmaceuticals	1.5
<b>ENG 5120</b> Microbial Fermentation	1.5
<b>ENG 5131</b> Mammalian Cell Culture Lab	3.0
<b>ENG 5141</b> Introduction to Bioseparations Engineering Lab	1.5
<b>ENG 6340</b> Product Development	3.0
<b>ENG 5130</b> Mammalian Cell Biotechnology	1.5
<b>ENG 5140</b> Bioseparations Engineering and Science	1.5
<b>SCI 6300</b> Advanced Pharmaceutical Discovery	3.0
<b>ENG 5100</b> Bioprocess Engineering Principles	1.5
<b>REG 6510</b> Clinical Trials Design, Conduct and Strategy	1.5
<b>MATH 5020</b> Clinical Biostatistics	3.0
<b>REG 6120</b> Medical Device Regulations	1.5
<b>SCI 5210</b> Clinical Pharmacology I	3.0
<b>SCI 5220</b> Clinical Pharmacology II	3.0
<b>REG 6110</b> Drug and Biologic Regulations	1.5
<b>REG 6020</b> Current Issues for FDA Regulated Products	3.0



Technical or Business Depending on Topic	Credits
RES 6000/6001 Independent Research	1.5 or 3.0
RES 6010/6011 Independent Study	1.5 or 3.0