

# B.S. in Engineering Technology, Technology Education

(120 credits)

**First Year**

<b>1st Semester</b>		<b>Credits</b>
MATH 138	General Calculus I	3
PHYS 102	General Physics I	3
PHYS 102A	General Physics I Lab	1
CS 106	Introduction to Computing	3
MET 103	Engineering Graphics and Intro. to CAD	2
ENGL 101	English Composition: Introduction to Academic Writing	3
ET 101	Introduction to Engineering Technology	0
FYS SEM	First-Year Student Seminar	0
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

MATH 105 or MATH 238	Elementary Probability and Statistics <sup>1</sup> or General Calculus II	3
PHYS 103	General Physics II	3
PHYS 103A	General Physics II Lab	1
MET 105	Applied Computer Aided Design	2
ENGL 102	English Composition: Introduction to Writing for Research	3
Social Science Literacy GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/social-science-ger/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/social-science-ger/</a> )		3
<b>Term Credits</b>		<b>15</b>

**Second Year****1st Semester**

ECET 201	Circuits I	3
Technical Elective		3
Free Elective		3
R300 292	Social Foundation in Urban Edu <sup>2</sup>	3
R300 295	Child and Adolescent Psychology in the Urban Experience	3
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

MET 205	Advanced Computer Aided Design	3
Technical Elective		3
Free Elective		3
STS 201	Understanding Technological Society	3
R300 298	Educational Planning for Dually Exceptional Students	3
<b>Term Credits</b>		<b>15</b>

**Third Year****1st Semester**

MNET 300	Concepts In Machining	3
MATH 305 or MNET 315	Statistics for Technology or Industrial Statistics	3
Technical Elective		3
COM 313	Technical Writing	3
R300 454	Science and Technology Content Planning and Teaching in the Urban Classroom I	3
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

ENGR 320	Prototyping Essentials	3
ENGR 330	Applications of Microcontrollers and IoT devices	3
Technical Elective (3xx or 4xx)		3
History and Humanities GER 300+ level ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/</a> )		3
R300 390	Culturally Responsive Assessment and Evaluation	3
R300 455	Sci&Tech Plan/Tch Urb Class II	3
<b>Term Credits</b>		<b>18</b>

**Fourth Year****1st Semester**

ENGR 400	Multidisciplinary Engineering Design Project	3
MNET 425	Advanced Manufacturing Rotation	2
Humanities and Social Science Senior Seminar GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/</a> )		3
R300 418	Clinical Practice I Seminar <sup>3</sup>	3
R300 419	Clinical Practice I	3
R300 378	Seminar in Critical Writing	1
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

R300 487	Clinical Practice II Seminar	3
R300 488	Clinical Practice II	9
<b>Term Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>120</b>

**Approved Technical Electives**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
MET 235	Statics for Technology	3
MET 237	Strength of Materials for Technology	3
MIT 231	Intro to Comp Security:Med Dev <sup>4</sup>	3
CET 317	Construction Computing	3
CPT 325	Medical Informatics Technology <sup>4</sup>	3
CPT 330	Software Web Applications for Engineering Technology I <sup>4</sup>	3
CPT 341	Visual Basic.NET for Engineering Technology <sup>4</sup>	3
CPT 373	Web App Development for Mobile <sup>4</sup>	3
CMT 452	Mechanical and Electrical Systems for Construction	3
ENGR 301	Engineering Applications of Data Science <sup>4</sup>	3
ENGR 423	Drone Science Fundamentals <sup>4</sup>	3
ENGR 424	Robotics Science Fundamentals <sup>4</sup>	3
MNET 303	Advanced Techniques in CAD/CAM	3
MNET 423	Workplace Design and Measurement	3

<sup>1</sup> MATH 238 serves as prerequisite for MET 235.

<sup>2</sup> Apply Rutgers – Newark Urban Teacher Education Program

<sup>3</sup> Praxis must be taken prior to taking this class.

<sup>4</sup> Discuss with advisor for Computer Science Technology Certificate #4148.