B.S. in Engineering Technology, Manufacturing Engineering Technology

(120 credit minimum)

First Year		
1st Semester		**Credits**
MATH 138	General Calculus I	3
PHYS 102	General Physics I	3
PHYS 102A	General Physics I Lab	1
MET 103	Engineering Graphics and Intro. to CAD	2
ENGL 101	English Composition: Introduction to Academic Writing	3
CS 106	Introduction to Computing	3
ET 101	Introduction to Engineering Technology	0
FYS SEM	First-Year Student Seminar	0
	Term Credits	**15**
2nd Semester		
MATH 105 or MATH 238	Elementary Probability and Statistics [1] 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
ECON 201 or EPS 202	Economics or Society, Technology, and the Environment	3
	Term Credits	**15**
Second Year		
1st Semester		
CHEM 121	Fundamentals of Chemical Principles I	3
CHEM 125A	General Chemistry Lab I	1
ECET 201	Circuits I	3
Technical Elective		3
History and Humanities GER 200 level (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/)		3
Free Elective		3
	Term Credits	**16**
2nd Semester		
MET 205	Advanced Computer Aided Design	3
Technical Elective		3
MNET 215 or ME 215	Materials and Processes for Technology or Engineering Materials and Processes	3
Free Elective		3
Free Elective		2
	Term Credits	**14**
Third Year		
1st Semester		
COM 313	Technical Writing	3
MNET 303	Advanced Techniques in CAD/CAM	3
MNET 300	Concepts In Machining	3
MNET 315	Industrial Statistics	3

Technical Elective		3
	Term Credits	**15**
2nd Semester		
Technical Elective		3
ECET 329	Analog and Digital Electronics	3
ENGR 320 or MNET 405	Prototyping Essentials [2] or Numc Control Machn Tools	3
MNET 318	Mnfg Process Design	3
Free Elective		3
	Term Credits	**15**
Fourth Year		
1st Semester		
MNET 423	Workplace Design and Measurement	3
MNET 420	Quality Systems	3
MNET 416	Production Scheduling	3
MNET 414	Industrial Cost Analysis	3
History and Humanities GER 300+ level (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/)		3
	Term Credits	**15**
2nd Semester		
MET 415	Automatic Control Systems	3
Free Elective		3
Technical Elective		3
MNET 426	Manufacturing Project	3
Humanities and Social Science Senior Seminar GER (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/)		3
	Term Credits	**15**
	Total Credits	**120**

Footnotes

[1] MATH 238 is a prerequisite for required courses in the Manufacturing Engineering Specialization.

[2] MNET 405 is a required course in the Manufacturing Engineering Specialization.

Approved Technical Electives

Code	Title	Credits
MET 235	Statics for Technology	3
MET 236	Dynamics for Technology	2
MET 237	Strength of Materials for Technology	3
MET 303	Applied Thermodynamics	3
MET 304	Applied Fluid Mechanics	3
MNET 422	Tool Design	3
MNET 426	Manufacturing Project	3
IE 449	Industrial Robotics	3
IE 355	Human Factors	3
IE 473	Safety Engineering	3
ECET 319	Electrical Systems and Power	3
MNET 395	Coop Experience I	3
MNET 495	Cooperative Experien II	3
MET 307	Plastics Technology	3
ECET 210	Intro. to Microprocessors and Computer Architecture	3
MET 308	Plastics Processing Techniques	3

CPT 330	Software Web Applications for Engineering Technology I	3
CPT 341	Visual Basic.NET for Engineering Technology	3

Additional courses from other departments may be substituted as Technical Electives after obtaining prior approval from the MNET Program Coordinator.

Approved Electives

Code	Title	Credits
MGMT 390	Principles of Business	3

Co-op

Co-op courses must be approved by the MNET Program Coordinator and Career Development Services. MNET 395 is taken as an elective for degree credit. Students taking a Full-Time Co-op may only register for a maximum of 9 credits including Co-op, but are fulltime.

Manufacturing Engineering Specialization

Code	Title	Credits
MET 235	Statics for Technology	3
MET 236	Dynamics for Technology	2
MET 237	Strength of Materials for Technology	3
MET 303	Applied Thermodynamics	3
MET 304	Applied Fluid Mechanics	3
MNET 405	Numc Control Machn Tools	3
MNET 422	Tool Design	3

See the **General Education Requirements** “Refer to the General Education Requirements for specific information for GER courses"