

# B.S. in Engineering Technology, Software and Data Engineering Technology

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(120 credits minimum)

**First Year**

<b>1st Semester</b>		<b>Credits</b>
SDET 101 or CS 106	Fundamentals of Software and Data Technologies or Introduction to Computing	3
ENGL 101	English Composition: Introduction to Academic Writing	3
FYS SEM	First-Year Student Seminar	0
MATH 138	General Calculus I	3
ET 101	Introduction to Engineering Technology	0
MET 103	Engineering Graphics and Intro. to CAD	2
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>14</b>

**2nd Semester**

SDET 102	Applications of Software Engineering Technology	3
Scientific Literacy GER with Lab ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/</a> )		4
CS 115	Introduction to Computer Science I in C++	3
ENGL 102	English Composition: Introduction to Writing for Research	3
MATH 105	Elementary Probability and Statistics	3
<b>Term Credits</b>		<b>16</b>

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

ECET 215	Introduction to Digital Electronics	3
History and Humanities GER 200 level ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/</a> )		3
IT 201	Information Design Techniques	3
Scientific Literacy GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/</a> )		3
Technical Elective		3
Free Elective		3
<b>Term Credits</b>		<b>18</b>

**2nd Semester**

SDET 201	Data Engineering	3
IT 120	Introduction to Network Technology	3
IT 202	Internet Applications	3
Technical Elective		3
Free Elective		3
<b>Term Credits</b>		<b>15</b>

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

SDET 330	Software Web Applications for Engineering Technology I	3
COM 313	Technical Writing	3
IS 331	Database Design Management and Applications	3
ECET 311	Embedded Systems I	3
Technical Elective		3
Free Elective		3
<b>Term Credits</b>		<b>18</b>

**2nd Semester**

SDET 335	Networks Applications for Software and Data Engineering Technology I	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
ECET 411	Embedded Systems II	3
Technical Elective		3
Free Elective		3
<b>Term Credits</b>		<b>15</b>

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

ENGR 423	Drone Science Fundamentals	3
SDET 430	Software Web Applications for Engineering Technology II	3
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
Technical Elective		3
<b>Term Credits</b>		<b>12</b>

**2nd Semester**

ENGR 424	Robotics Science Fundamentals	3
SDET 401	Senior Project	3
SDET 435	Networks Applications for Software and Data Engineering Technology II	3
Technical Elective		3
<b>Term Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>120</b>

**Approved Technical Electives**

Code	Title	Credits
MIT 231	Intro to Comp Security:Med Dev	3
MIT 326	Electronic Medical Record Design	3
BMET 320	Applied Biomedical Data Acquisition	3
BMET 415	Biomedical Mechatronics	3
BMET 440	Biomedical Experiential Learning	3
SDET 310	Computer Design Fundamentals for Software and Data Engineering Technology	3
SDET 315	Computer Architecture for Software and Data Engineering Technology	3
SDET 325	Medical Informatics Technology	3
SDET 341	Visual Basic.NET for Engineering Technology	3
SDET 373	Web App Development for Mobile	3
SDET 395	Co-op Work Experience I	3
SDET 425	Medical Informatics Technology II	3
SDET 440	Visual Basic Applications for Engineering Technology	3

**Medical Informatics Specialization:**

Code	Title	Credits
Complete the following 4 courses:		
SDET 325	Medical Informatics Technology	
SDET 425	Medical Informatics Technology II	
MIT 326	Electronic Medical Record Design	
R120 141	Anatomy & Physiology	

**Technical Electives:**

Select two of the following:

IT 220	Wireless Networks
IT 330	Computer Forensic
IT 331	Privacy and Information Technology

IT 332	Digital Crime
IT 430	Ethical Hacking for System Administrators
CS 434	Advanced Database Systems
CS 608	Cryptography and Security
CS 639	Elec. Medical Records: Med Terminologies and Comp. Imp.
R120 102	General Biology II
R120 142	Anatomy & Physiology