

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

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(120 credits minimum)

## First Year

1st Semester		Credits
SDET 101	Fundamentals of Software and Data Technologies	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	Introduction to Engineering Technology Design	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 211	Computer Architecture and Embedded Systems	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 (100 or 200 level)		3
Free Elective (100 or 200 level)		3
<b>Term Credits</b>		<b>15</b>

## Third Year

### 1st Semester

COM 313	Technical Writing	3
SDET 335	Networks Applications for Software and Data Engineering Technology I	3
IS 331	Database Design Management and Applications	3
ECET 311	Embedded Systems I	3
Technical Elective (300 or 400 level)		3
Free Elective (300 or 400 level)		3
<b>Term Credits</b>		<b>18</b>

**2nd Semester**

SDET 435	Networks Applications for Software and Data Engineering Technology II	3
ECET 411	Embedded Systems II	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
Technical Elective (300 or 400 level)		3
Free Elective (300 or 400 level)		3
<b>Term Credits</b>		<b>15</b>

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

SDET 330	Software Web Applications for Engineering Technology I	3
ENGR 423	Drone Science Fundamentals	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 (300 or 400 level)		3
<b>Term Credits</b>		<b>12</b>

**2nd Semester**

ENGR 424	Robotics Science Fundamentals	3
SDET 430	Software Web Applications for Engineering Technology II	3
SDET 401	Senior Project	3
Technical Elective (300 or 400 level)		3
<b>Term Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>120</b>

**Approved Technical Electives**

Code	Title	Credits
BMET 231	Medical Networks, Data Security, and Privacy	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

**Additional courses from other departments may be substituted as Technical Electives after obtaining prior approval from the SDET Program Coordinator. MATH 107/108/110 cannot be used to satisfy any free or technical electives.**

*This curriculum represents the maximum number of credits per semester for which a student is advised to register. A full-time credit load is 12 credits.*

*First-year students are placed in a curriculum that positions them for success which may result in additional time needed to complete curriculum requirements. Continuing students should consult with their academic advisor to determine the appropriate credit load.*