

**SJC: Associate of Science in Engineering**

**NMT: Bachelor of Science in Mechanical Engineering**

NMT

SJC

1. Communications (NMT Requirements = 9 credit hours)

ENGL 1110	Composition 1	ENGL 1110	Composition 1
ENGL 1120	Composition 2	ENGL 1120	Composition 2
MENG 3041	Technical Writing	ENGL 2210	Prof & Tech Comm

NMT will accept, for the purposes of this agreement, SJC's ENGL 2210 as an appropriate substitution for NMT's MENG 3041.

2. Mathematics (17 credit hours)

MATH 1510	Calculus I	MATH 1510	Calculus I
MATH 1520	Calculus II	MATH 1520	Calculus II
MATH 2532	Calculus III*	MATH 2530	Calculus III
MATH 335	Ordinary Differential Equations	MATH 2410	Applied Ord Diff Equations

\*An additional credit of MATH 0289 is required for the NMT degree.

3. Basic Laboratory Sciences (18 credit hours)

CHEM 1215/L	General Chemistry I/Lab	CHEM 1215/L	General Chemistry I/Lab
CHEM 1225/L	General Chemistry II/Lab	CHEM 1225/L	General Chemistry II/Lab
PHYS 1310/L	Calc-based Physics I/Lab	PHYS 1310/L	Calc-based Physics 1/Lab
PHYS 1320/L	Calc-based Physics II/Lab	PHYS 1320/L	Calc-based Physics 2/Lab

4. Social Science (6 credits)

ECON 2110	Macroeconomics Principles	ECON 2110	Macroeconomics Principles
		OR**	
ECON 2120	Microeconomics Principles	ECON 2120	Microeconomics Principles

\*\*Either ECON 2110 or ECON 2120 is required at SJC; while neither ECON course is required at NMT, they may be used to fill Area 4.

ANY Area 4 SJC course articulated with the state can be transferred in as Area 4. If there is interest in specific courses for other programs, please use the Approved Course matrix available on the HED website or contact NMT for specific course equivalences.

5. Humanities (6 credit hours)

(Introductory 3-4 credit language classes also meet Group 5 requirements)

ANY Area 5 SJC course articulated with the state can be transferred in as Area 5. If there is interest in specific courses for other programs, please use the Approved Course matrix available on the HED website or contact NMT for specific course equivalences.

6. Creative and Fine Arts (3 credit hours)

ANY Area 6 SJC course articulated with the state can be transferred in as Area 6. If there is interest in specific courses for other programs, please use the Approved Course matrix available on the HED website or contact NMT for specific course equivalences.

7. Additional Social Sciences, Humanities, or Creative and Fine Arts (3 credit hours)

ANY Area 4, 5, or 6 SJC course articulated with the state can be transferred in for Area 7. If there is interest in specific courses for other programs, please use the Approved Course matrix available on the HED website or contact NMT for specific course equivalences.

8. Technical Requirements

MENG 110/L	Intro Design	ENGR 112	Introduction to Engineering
MENG 210/L	Sophomore Design	ENGR 135	Problem Solving w/MATLAB
ES 201	Statics	ENGR 233	Mechanics – Statics
ES 347	Thermodynamics	ENGR 236	Thermodynamics
ES 303	Dynamics	ENGR 234	Mechanics – Dynamics
ES 332	Electrical Engr.	ENGR 230	Engineering Circuit Analysis

*Note: Additional NMT courses, such as ES 216 and ES 302, may be available by distance education while at SJC.*

9. Additional courses required at San Juan College to receive an Associate of Science in Engineering

FYEX 1110	First Year Seminar
DRFT 121	Engineering Graphics

10. Additional courses are required at New Mexico Tech to complete Bachelor of Science Degree in Mechanical Engineering Program. Please see the NMT Catalog for more details.

Remaining requirements for the Bachelor of Science in Mechanical Engineering (from the 2022-2023 NMT Catalog)

- Engineering Science: ES 216 (3), ES 302 (3), ES 316 (3), ES 350 (3)
- Mechanical Engineering: MENG 302L (1), MENG 304 (3), MENG 305 (3), MENG 381 (2), MENG 382 (2), MENG 405 (2), MENG 405L (1), MENG 421 (2), MENG 421L (1), MENG 431 (2), MENG 431L (1), MENG 441 (3), MENG 451 (3), MENG 481 (3), MENG 482 (3), MENG 483 (2) & MENG 483L (1)
- Materials Engineering: MTL5 202 & 202L (4)
- Technical Electives: Six credits from upper-division (300, 400, or 500 level) technical courses chosen by the student with the faculty advisor's approval. Recommendations include classes from AE, EXPL, MENG, or other engineering or science disciplines.
- Note 1: Credit for MATH 1240, pre-calculus, and MATH 1230, trigonometry, is not allowed for mechanical engineering students.
- Note 2: Courses used for the degree, including the General Education Core Curriculum, may not be taken on an S/U basis except for two courses in Humanities and/or Social Science.

- Note 3: Mechanical engineering majors must take the Fundamentals in Engineering (FE) exam as a requirement for graduation. Passing this exam is a major step in the process of attaining professional registration. It is strongly recommended that the exam be taken in semester 7, before the graduation semester (semester 8).
- Reminder: San Juan College students transferring to NMT will articulate under the Bachelor of Science Degree requirements that were in effect when they started at SJC, or up to three years before they enroll at NMT, whichever is less.

DRAFT