BACHELORS MATERIALS SCI & ENGINEERING

TOP INDUSTRIES

1. Technology Hardware & Equipment
2. Personal & Household Goods
3. Automobiles & Parts
4. Aerospace & Defense
5. Healthcare

SAMPLE JOB TITLES

- Associate Scientist
- Leadership Development Program
- Manufacturing Engineer
- Materials Engineer
- Metallurgist
- Operations Specialist
- Process Engineer
- Product Development Engineer
- Quality Engineer
- R&D Engineer
- Rotational Development Program
- Technical Sales Assoc.

TOP HIRING COMPANIES

General Mills, P&G, Texas Instruments, Nike, Intel, Ford, Northrop Grumman

SAMPLE HIRING COMPANIES

- 3M
- Actalent
- Adient
- Air Products
- Boeing
- Caterpillar
- Charter Steel
- Chemours
- Chevron
- Comau
- Corteva Agriscience
- Dana Incorporated
- Deloitte
- DTE Energy
- Eaton
- Entegris
- ES3
- Faurecia
- First Solar
- General Dynamics
- Gerdau
- GlobalFoundries
- Herman Miller
- Honeywell
- Johnson & Johnson
- Joyworks Studio
- Krystal Biotech
- L&L Products
- Lockheed Martin
- L'Oreal
- Loukus Technologies
- Magna
- Merck
- Mitsubishi Chemical
- NASA
- National Solar Services
- NHK International
- Panasonic
- PennEngineering
- Petronas
- Pratt & Whitney
- Qualtrics
- Rivian Automotive
- Sandia National Lab
- Scops Coating
- Sherwin Williams
- Shibusa Systems
- Tekton
- Thermo Fisher Scientific
- Wacker Chemical

FULL TIME STARTING ANNUAL SALARY

Average: $79,630

Min	Median	Max
$62,000	$80,500	$103,000

INTERN MONTHLY SALARY

Average: $25.28

Min	Median	Max
$18	$25	$45

Salary Data are from Academic Year (AY) 2023.
Job Titles are from AY 2022 & 2023. Industries and Companies are from AY 2021-2023.
Visit career.engin.umic.edu/career/salary-info for more comprehensive data.

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BACHELORS MATERIALS SCI & ENG

SAMPLE ELEVATOR PITCH

Hello, I'm [NAME] and I'm a senior studying materials science and engineering and am graduating this May.

I am seeking a full time position in product development. I recently interned at Ford where I led a project to evaluate the mechanical performance of a new material by planning and executing a variety of feasibility tests. On campus, I serve as a student representative in the Michigan Materials Society, where I help students engage with professionals in the field and learn more about various career opportunities.

My passion for technical challenges and leadership have prepared me for a role at your company. I recently applied to an entry product engineering role on your company's website. Would you be able to tell me more about the role?

SAMPLE IMPACT STATEMENT

Before – *Proposed alternative packaging design*
After – *Proposed the use of alternative packaging designs for three products to improve ease of assembly and reduce costs by $20,000 annually*

KEY COURSES

MSE 360 – Materials Lab 1**;** focused on research; major project to design an alloy to optimize a given property; students gain experience working with a team
MSE 365 – Materials Lab 2; focused on industry; four separate team projects; biggest project is a reverse engineering project in which students choose an object and explore its material properties & composition
MSE 480 – Materials & Engineering Design; sponsored design project on a team; identify target customers, user needs, & technical requirements; concept development, analysis, physical prototyping, & testing
MSE 489 – Materials Processing Design; work on a team to perform a life cycle analysis and a techno-economic assessment for a developing project or process

KEY SKILLS

Software – COMSOL and ThermoCalc
MATLAB – used in Engr 101 and multiple courses for mathematics and coding
C++ – computational modelling software
Lab skills – optical microscopy, scanning electron microscopy, Fourier transform infrared spectroscopy, differential scanning calorimetry, X-ray diffraction, texture analysis, tensile testing, hardness testing

SAMPLE EXTRACURRICULARS

Michigan Materials Society (MMS)
American Foundry Society
SPE Inspiring Plastics Professionals
Alpha Sigma Mu - Honors Society
Materials Research Society
Student Teams - BlueLab, Solar Car Team, MCCT, MASA
Material Advantage
ASM International