

# BACHELORS MATERIALS SCI & ENGINEERING

## TOP INDUSTRIES

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

## SAMPLE JOB TITLES

- Associate Material Process Engineer
- Materials Engineer
- Process Engineer
- Product Development Engineer
- Project Manager
- Quality Supplier Engineer
- R&D Engineer
- Research Chemist
- Rotational Development Program Engineer

## TOP HIRING COMPANIES



## SAMPLE HIRING COMPANIES

- 3M
- Actalent
- Adient
- Air Products & Chemicals
- Automatic Spring
- Avanos Medical
- Chemours
- Corveva Agriscience
- Dana Inc.
- Deloitte
- Dow Chemical
- DTE Energy
- Eaton
- Epic
- ES3
- Facebook
- Faurecia
- First Solar
- General Mills
- General Motors
- Gerdau Special Steel
- GlobalFoundries
- Herman Miller
- Honeywell
- Joyworks Studio
- KLA
- Klein Tools
- Krystal Biotech
- LeMond Bicycles
- Lockheed Martin
- Magna
- Materion
- Merck
- National Solar Services
- NHK International
- Oppo
- Panasonic
- Petronas
- Pfizer
- Qualtrics
- Ricops Coating
- Sherwin Williams
- Shibusu Systems
- SK Siltron CSS
- Stryker
- Thermo Fisher Scientific
- Wacker Chemical Corp

## FULL TIME ANNUAL SALARY

Average: \$70,333

**Min**  
\$48,000

**Median**  
\$74,000

**Max**  
\$78,000

## INTERN MONTHLY SALARY

Average: \$4,317

**Min**  
\$2,210

**Median**  
\$4,507

**Max**  
\$5,500

Industry and Salary Data are from 2021-2022. Companies and Job titles are from 2020-2022.  
Visit [career.engin.umich.edu/career/salary-info](https://career.engin.umich.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**

