



MATERIALS SCIENCE

C A R E E R P R O F I L E

Overview

Materials Science Engineers develop new types of biomaterials, ceramics, electronic materials, metals, and polymers and adapt existing materials to new uses using knowledge from chemistry, physics, and engineering. Materials Science Engineers graduate to field such as energy and power, telecommunications, electronics, medical, and automotive.

Average Starting Salary (Bachelor's Degree): UIUC- \$69,281

Skills and Interests Important to Materials Engineers

- Physics and Chemistry knowledge
- Computer expertise
- Interdisciplinary background
- Research and problem-solving skills

Sample Job Titles

- Process Engineer
- Packaging Engineer
- Metallurgist
- Materials Research Engineer
- Manufacturing Engineer
- Production Engineer
- Quality Assurance Manager
- Quality Engineer

Sample Companies Recruiting Materials Engineers

- 3M
- Anheuser-Busch
- Argonne National Laboratory
- Baxter Healthcare
- Boeing
- BP
- Caterpillar
- Cypress Semiconductor
- ExxonMobil
- General Electric
- IBM
- Intel
- Kimberly-Clark
- Kraft Foods
- NASA
- Naval Research Laboratories
- Northrop Grumman
- Texas Instruments
- U.S. Army Corp of Engineers
- U.S. Department of Energy

Getting Involved

Campus Organizations:

- Keramos Honor Society, <http://keramosillinois.org/>
- Material Advantage (Illinois chapter), <http://ma.matse.illinois.edu/>

National Organizations:

- American Ceramic Society, <http://ceramics.org/>
- Materials Research Society, <http://www.mrs.org>
- Mineral, Metals and Materials Society, <http://www.tms.org/>

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Education:

University of Illinois at Urbana-Champaign May 2016
B.S. in Materials Science in Engineering
GPA: 3.75/4.00

Related Coursework:

Materials Laboratory Synthesis of Materials
Mechanical Properties of Materials Thermodynamics of Materials
Mechanics of Materials Composite Materials

Experience:

General Electric Healthcare Wankesha, WI
EID Intern May – Aug 2014

- Created automated and optimized processes for compiling plant and equipment financial expenses using Visual Basic and Excel Macros
- Developed and implemented viable Consumable to Repairable (CR2) project funnel process which reduced the fall-out ratio by 50%
- Completed Six Sigma Green Belt Training

Kimberly Clark Corporation Neenah, WI
Family Care Intern May – Aug 2013

- Developed testing methods and began construction of statistical models for correlation of consumer-perceived softness in facial tissue to physical attributes
- Designed and conducted experimental trials to evaluate the outcome of combining wet and dry production methods of facial tissue
- Analyzed changes in tissue properties resulting from formation on topographically different tasks

University of Illinois Urbana, IL
Undergraduate Research Assistant Sept 2012 – Present

- Developed microcontact printing methods of pattern DNA in 2-D features on glass substrates
- Examined DNA-patterned substrates using fluorescence microscopy and atomic force microscopy

Skills:

Instrumentation: Metallography using Optical Microscopy, Electronic Materials Analysis, XRD, BET, PSD, SEM, FTIR, DSC, Mechanical Testing
Computer: AutoCAD, Mechanical Desktop, C, MATLAB, Mathematica, Visual Basic, MS Office
Languages: Fluent in Cantonese and English

Leadership & Activities:

SBME (Society of Business Management in Engineering) Sept 2014 - Present
Marketing Director

- Manage and run a committee of 8 members to create corporate awareness for the organization
- Advertise events such as corporate meetings and fundraisers through electronic and print marketing

Sigma Kappa Sorority Sept 2013 – May 2014
Technology Chair

- Constructed and maintained chapter website using HTML
- Maintained and updated 10 chapter computers while assisting members with issues and troubleshooting

Material Advantage Jan 2013 - Present
Member