



## Profiles of Materials Science and Engineering Professionals



**Bernice Aboud**

**Manager, Materials Research  
DePuy Orthopedics, Inc.  
Warsaw, IN**

### Education:

1990 - BS Materials Science, Arizona State University  
1994 - MS Materials Science, University of Arizona

### Job Description:

Research and Development

### Advice to Students:

"You have to like multi-tasking. Take a look at the various subjects covered in the ASM volumes, those are the areas people expect you to know."

### Video Transcript:

"I do a lot of failure analysis of orthopedic implants here, and I do a lot of material characterization type of work. And when, in the development of a product, they need to know what kind of alloy to use, whether or not they should use a rod alloy, a casting, a forging, should it be titanium, cobalt, chrome, stainless. There's always so many materials that are biocompatible. You know, we sit down and we talk about what kind of loads are being applied onto a hip or a knee or a spine. And based on my knowledge -- and you know, they have a lot of reference material too that you can look through -- we can decide what material to use. If we really don't know, we can test it. We can actually send off the prototypes and actually make prototypes and design and test them here in the lab."

### Interview:

#### - Typical Day

7:00 AM - Drive patiently to work. Try not to pass the tractors.  
8:00 AM - Answer phone mail, e-mail, any mail.  
9:00 AM - Lab rounds - quick priorities meeting with technicians.  
10:00 AM - Manufacturing floor rounds.  
11:00 AM - Come back to office with 100 things to do.  
12:00 PM - Leave the building - eat, work, shop  
1:00 PM - Lab work or paper work

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2:00 PM - If I'm feeling analytical

3:00 PM - do a little SEM/EDS work.

4:00 PM - Write memo, report, or go over data.

5:00 PM - Visit my boss - he's usually pretty mellow by 5:00PM, and if you want a new tool for the lab that's when you ask.

Evening - Home

### **- Career Experience**

1995-Present: Depuy, Manager, Materials Research

1994-1995: DePuy, Sr. Biomaterials Research Scientist

1990-1994: Hughes Aircraft Company, Supervisor, Materials Failure Analysis Lab

1989-1990: Hughes Aircraft Company, Project Engineer

1987-1989: Hughes Aircraft Company, Materials & Processes Applications Engineer - MTS II

### **- Internships & Coops**

1982-1984 - Failure Analysis Assistant, Arizona State University

### **- Best Preparation**

The work as a Failure Analysis Technician while at ASU.

### **- Getting First Job**

A girlfriend of mine who was hired as an Applications Engineer in Materials at Hughes Aircraft told me about her job. It sounded fun so I called her boss, interviewed & he hired me.

### **- Advice**

You have to like multi-tasking. Take a look at the various subjects covered in the ASM volumes, those are the areas people expect you to know.

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