

On Education

“In retrospect, I think the best thing I did in the way of education was to get my B.S./Ph.D. in geological engineering (UMR), which put me on a dual P.G./P.E. track. Not everyone will do this, but having at least some ability to bridge the gap between the worlds of geology and engineering is a real asset.”

– **William Nieman, SYPSC Member**

Recommended geology courses for students interested in engineering geology careers:

- ◆ Hydrogeology
- ◆ Engineering Geology
- ◆ Good background in physics and calculus

Recommended courses for students interested in environmental geology careers:

- ◆ Hydrogeology
- ◆ Environmental Geology
- ◆ Geomorphology

Other recommended courses:

- ◆ Statics
- ◆ Fluid Mechanics
- ◆ Materials
- ◆ Soil Mechanics
- ◆ Rock Mechanics

Other recommended courses:

- ◆ Organic chemistry
- ◆ Low temperature geochemistry (especially useful for those people dealing with contaminants in soil and groundwater)

“The following thoughts are those of a senior environmental/engineering geologist who came into the profession through the classical geology route. It is very important that those new engineering geologists entering the profession have an appreciation of the inter-relationships between the various aspects of geology and engineering and that we must be able to characterize the site in terms of what geologic data is pertinent to design and how it will potentially affect design and performance.”

– **John Moylan, SYPSC Member**

Recommended Geology Courses: (solid grounding in the basics of geology)

- ◆ Structural Geology
- ◆ Stratigraphy
- ◆ Sedimentology
- ◆ Geomorphology
- ◆ Geophysics basics
- ◆ Hydrogeology

Desirable Courses

- ◆ Statics
- ◆ Fluid mechanics
- ◆ Soil Mechanics
- ◆ Rock Mechanics
- ◆ Organic chemistry
- ◆ Low temperature geochemistry
- ◆ Contaminant transport
- ◆ GIS
- ◆ Remote sensing

Strongly Recommended Non-Geology Skills: (we are worth no more to our employer than our ability to communicate what we know)

- ◆ English grammar and composition
- ◆ Oral communication skills