ENGINEERING-CIVIL

BASIC SKILLS YOU WILL HAVE AS A FRESHMAN

- Computer: SolidWorks, Microsoft Excel, Outlook, Access, Word, PowerPoint.
- Laboratory: Safety measures, chemical preparation, titrations, documentation.
- Communication: Excellent public speaking, technical writing.
- Other: Organized, problem-solver, good team and leadership skills.

SKILLS YOU CAN ADD AS A SOPHOMORE

- Computer skills - software, hardware, programming languages
- Laboratory skills, sample preparation
- Independent research (library)
- Drawing and mapping

ADDITIONAL SKILLS YOU COULD HAVE BY THE TIME YOU GRADUATE

- Familiarity with EPA regulations, environmental law
- MathCAD
- MatLab
- Latex
- C, C++
- LabView
- Mathematica
- ArcGIS
- General site, highway, and mining surveying skills
- Use of specific survey instruments: geodimeter, theodolite, transit, etc.
- Knowledge of global positioning, photogrammetry
- Knowledge of reinforced concrete and steel design
- Familiarity with design standards and construction specifications
- Use of specific computer design tools - roadcalc, etc.
- Experimental stress analysis
- Knowledge of soils and materials testing procedures
- Ability to perform cost analyses
- Linear circuits
- Multidisciplinary experimentation and instrumentation
- AutoCAD: General, 3D, Civil;
- CosmosWorks
- Eng. Economic Analysis
- Geographix
- Geotechnical abilities
- Google SketchUp
- MicroPAVER
- NASTRAN/PATRAN
- Proposals and Budgeting
- Rock Sample Testing
- Ruling Span
- SAG Curve
- Sight Surveying