Baker Hughes 21st Century Co-Op
Salient Features and Invitation

To
AME Sophomores

From

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21st Century Co-Op Overview

The Baker Hughes 21st Century Co-Op at the University of Oklahoma School of Aerospace and Mechanical Engineering is a five year BS/MS degree program in mechanical engineering aimed at developing technical competencies and meta-competencies needed by engineers to hit the road running and succeed in the oil and gas industry. In addition to core courses in mechanical engineering, the curriculum includes customized courses jointly offered by company engineers and faculty during summer internships, a senior capstone experience and graduate theses that are of relevance to the sponsoring company, and graduate cross-disciplinary courses from the Schools of Industrial and Systems Engineering and the Mewbourne School of Petroleum Engineering.
21st Century Co-Op
Potential Benefits

Potential Benefits to Baker Hughes International
• Recruit mechanical engineers, who are able to hit the road running and with knowledge of reliability/maintenance/industrial management and petroleum engineering.
• Opportunity to work with faculty member on projects.
• Greater visibility of Baker Hughes at the University of Oklahoma.

Potential Benefits to Baker Hughes Scholars
• Get a BS/MS in five years that is tailor made for oil and gas industry.
• Come to know Baker Hughes and gain industrial experience and specialized knowledge via the internships.
• Additional income to defray education costs and the prospect of a good job with Baker Hughes on earning the MS degree.

Elements of the Program
All within the framework of the current 5 year BS/MS program in ME

BHI Internships
Senior Capstone
Customized Course Work
Graduate Thesis
Salient Features

• Baker Hughes Scholars (BHS) work as a team with the BH Mentor (BHM) and Faculty Mentor (FM) for three years.

• Four BHS are selected by Baker Hughes Mentor (BHM) in consultation with Faculty Mentor (FM) in the spring of the student’s sophomore year.

• BHS intern at BHI during the summers at the end of their Sophomore, Junior and Senior years.
  o Sophomore internship - learn about BHI and identify project to be worked under FM supervision when they return to OU
  o Junior internship – continue to learn about BHI and take a course for credit that is taught jointly by BHI engineer and FM. Identify capstone project.
  o Senior internship – as above plus identify and work on MS project.

• Fifth year at OU – Work on BHI project under supervision of FM and BHM / BHI engineers

• Fourth and fifth years: The BHS scholar degree plan that is jointly worked out by BHM / FM. Students will have opportunity to take customized courses

• Three graduate courses from Petroleum Engineering

• Graduate electives
  o Up to two graduate Industrial and System Engineering courses cross-listed with AME
  o List of suitable graduate courses offered by AME follows
**Interdisciplinary Program of Study**

SELECTED COURSES FROM

- IE 5563 Quality and Reliability
- IE 5713 Project Management
- IE 5343 Reliability Engineering
- PE5533 Advanced Drilling Engineering
- PE5673 Advanced Reservoir Engineering
- PE5990 Advanced Production Engineering
- AME 5740 Designing for Open Innovation
- AME 5XXX Design for X-ability
- AME 5063 Composite Materials
- AME 5XXX Computer Aided Design
- AME 5763 Intro Finite Element Method

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**Invitation …**

This is a great opportunity and we encourage all sophomores to apply.

For additional information feel free to contact

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