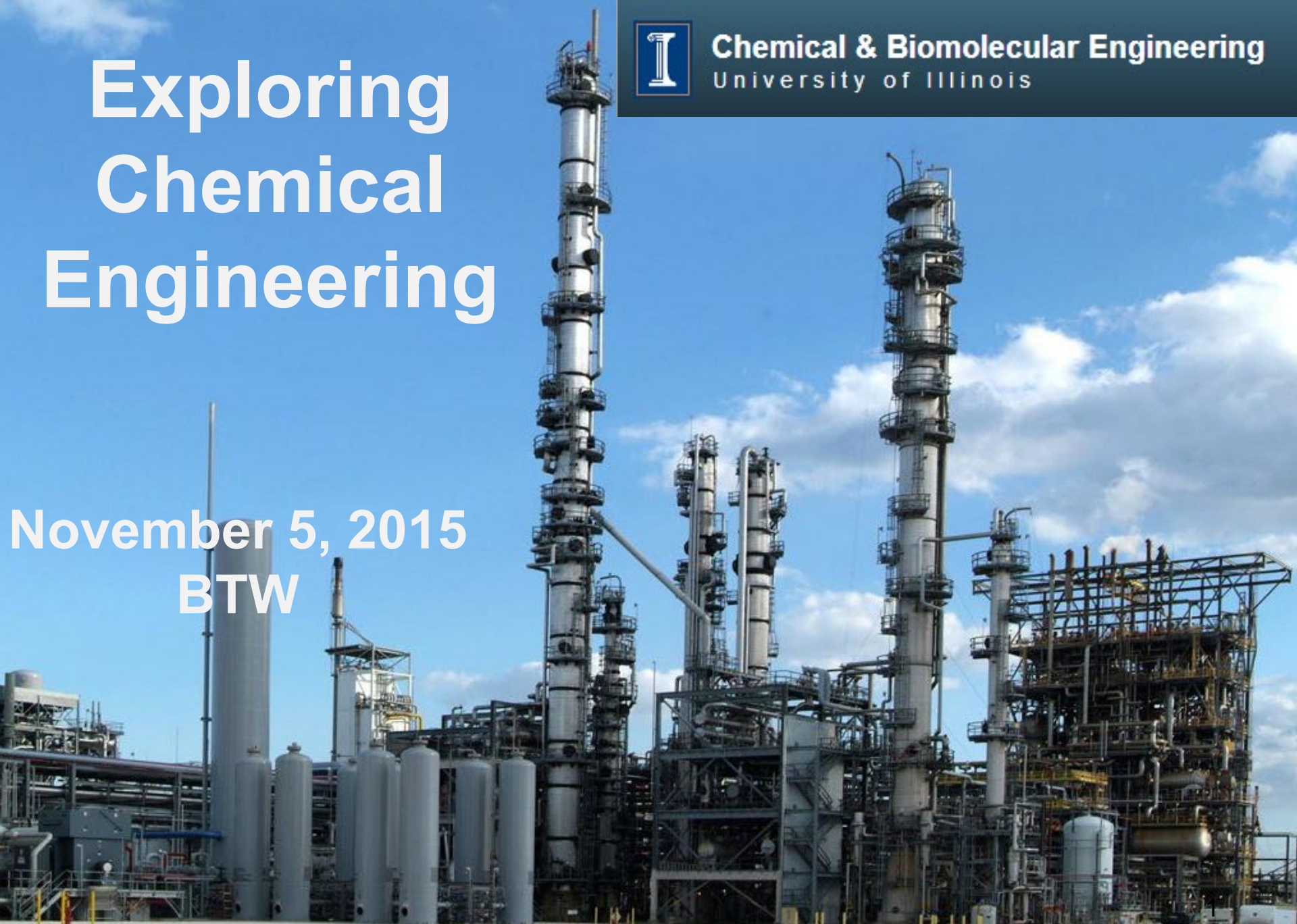


Exploring Chemical Engineering

November 5, 2015
BTW



Chemical & Biomolecular Engineering
University of Illinois



Dr. J, Mr. Ricky Greer, Mr. Joe Muskin

Chemical



SEPARAT

LARGE SCALE

D

What do you want to make/create?
How much do you want to make?
Can you produce product safely?
Will it make money?

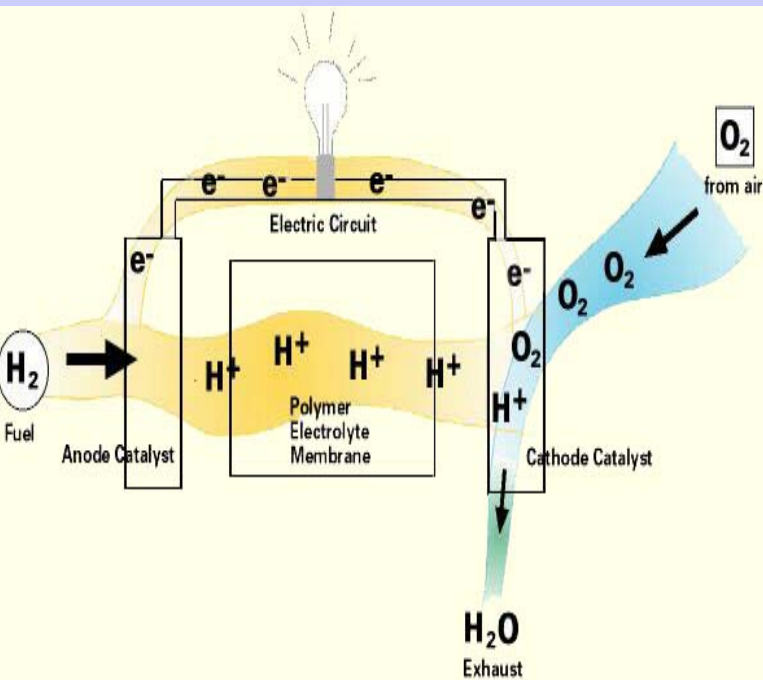
Some of the problems Chemical Engineers work on

What products have you used or are going to use today?

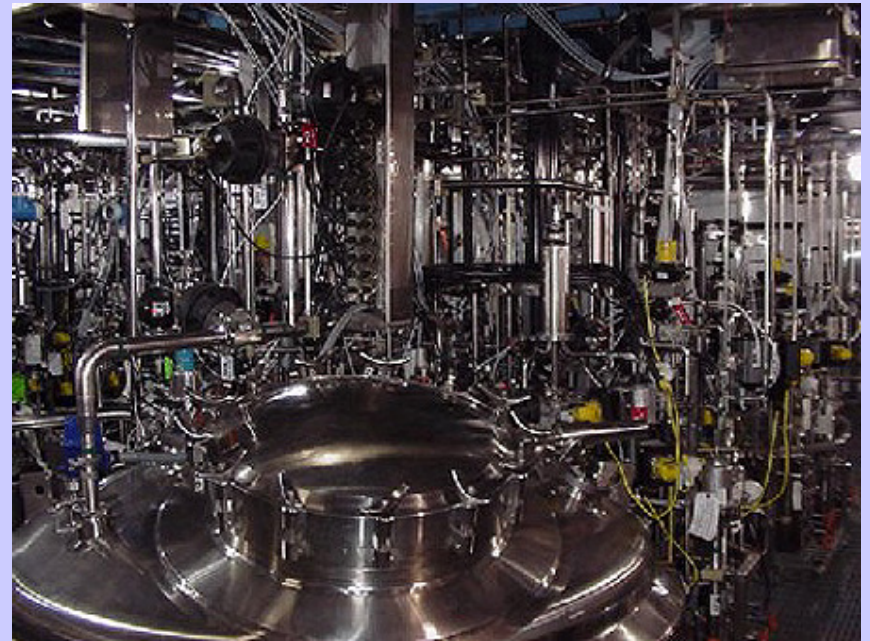
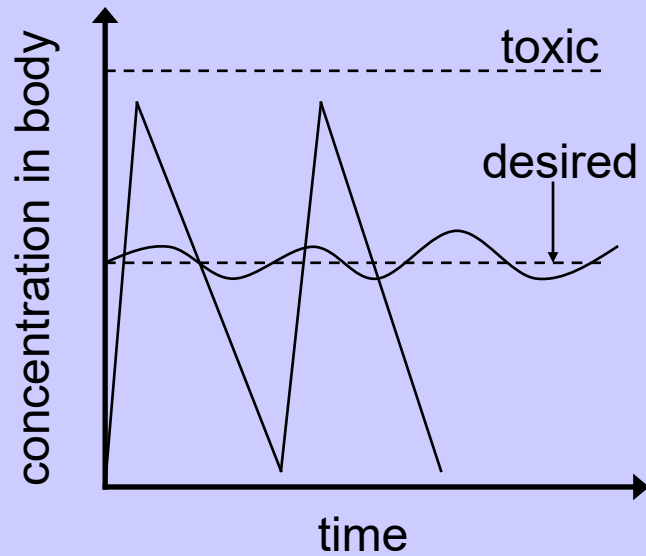
- Fuels & Energy
- Biotechnology (Drugs)
- Foods and Beverages
 - Other consumer products
- Advanced Materials and Plastics
- Cosmetics

**Making things we use
perform better and cost less**

Fuels & Energy



Biotechnology and Drug Production



<http://www.pharmaceutical-technology.com/>



<http://www.butterworth-labs.co.uk>

Chemical Engineering: Food and Beverages



<http://www.businessweek.com>

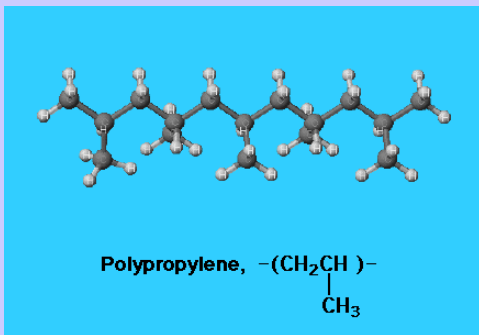


<http://cranberries.de/>



<http://www.funtimesguide.com>

Advanced Materials and Plastics



<http://www.elmhurst.edu/>



<http://www.east-coast-plastics.co.uk/>



<http://www.brooksidepress.org/>



<http://sunloungers.co.uk/>

Did you ever
notice how...

Are similar to...



Cheetos



Styrofoam Packing
Peanuts

That's because they're both made with



An extruder

Chemical Engineering: Making Consumer Products



<http://www.christiananswers.net/>



<http://www.strangenewproducts.com>



<http://money.cnn.com/>



<http://www.restockit.com/>



<http://www.shoplet.com/>



<http://www.rfidnews.se>



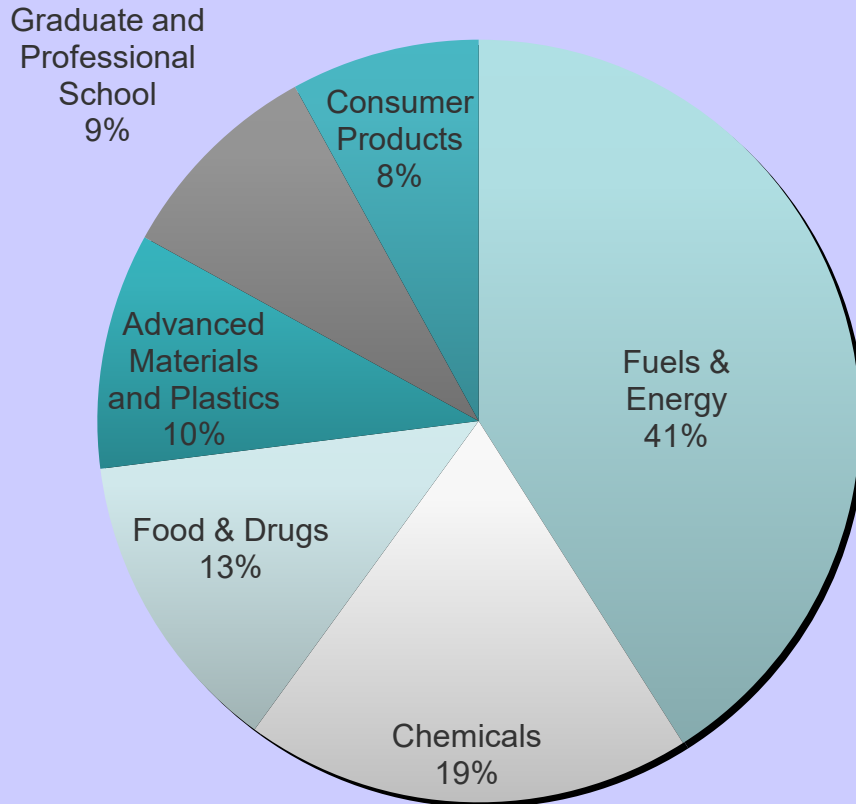
<http://www.oliver13.org>



<http://www.uk.pg.com/>

~89% of students have employment by the time of graduation

Where do students start their careers?



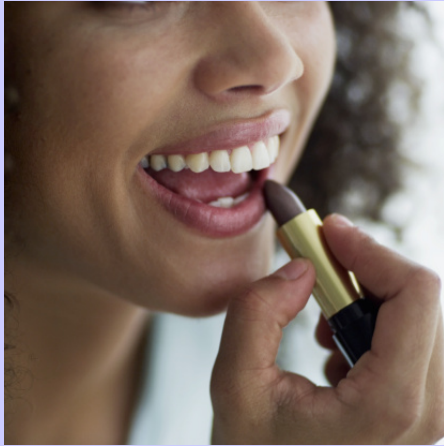
And how much might you earn?

Low: \$52k

High: \$100k

Average: \$73k

Minerals in Consumer Products



Shower Gel

Minerals Used

Sea Salt
(NaCl)



We will make shower gel without minerals
(using an easier safer mixture)