**Complete in the indicated order:**

- **Graduate Seminar sequence (2 Semesters)**
- **Qualifying Exam**
  - Must complete after passing Preliminary Exam
- **Research Proposal**
- **Thesis Defense**

**Other Requirements:**

- **Teaching Assistance Experience**
  - Complete 2 TA assignments (unpaid)
- **Thesis Research** – minimum of 14 hours
- **Publications** (2 required)
  - Published _____________________
  - Submitted _____________________

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**BS to PHD Program Overview**

Chemical Engineering

University of Utah

30 Course Credit Hours Required

(does not include thesis hours or graduate seminar)

**Previous degree in Chemical Engineering**

- **Take:**
  - 6353 Fluid Mechanics
  - 6603 Mass Transfer

- **Take:**
  - 6353 Fluid Mechanics
  - 6603 Mass Transfer
  - 6553 Chemical Reaction
  - 6853 Thermodynamics

- **Preliminary Exam Passed**
  - **GPA 3.3 attained**

- **Preliminary Exam Failed**
  - **GPA 3.3 attained**

- ****Need additional 24 credit hours of Electives of which at least 9 hours must be ChEn Electives**

**Previous degree NOT in Chemical Engineering**

- **Take:**
  - 6353 Fluid Mechanics
  - 6603 Mass Transfer
  - 6553 Chemical Reaction
  - 6853 Thermodynamics

- **Preliminary Exam Passed**
  - **GPA 3.3 attained**

- **Preliminary Exam Failed**
  - **GPA 3.3 attained**

- ****Need additional 18 credit hours of Electives of which at least 3 hours must be ChEn Electives**

**Approved ChEm Electives**

ChemE courses that are 6000+

(if you took a 5000 level course as an undergrad you may not repeat it at the 6000 level)

**Other Electives**

*non ChEm electives are approved by supervisory committee*