### Program of study – Engineering B.S. to Ph.D in CLSE

#### FALL ADMISSION

| Year 1 Fall (9 credits) | STAT 641 - Statistics for Engineering  
| ENGR 591/CLSE 650 - Graduate Mathematics  
| CLSE 654 - Graduate Equilibrium Analysis |
| Year 1 Spring (9 credits) | CLSE 655 - Graduate Non-Equilibrium Analysis  
| CLSE 656 - Graduate Reaction Engineering  
| Grad Elective (500/600 level)  
| (Research Topic Selection) |
| Year 1 Summer (6 credits) | Thesis Work (CLSE 697) |
| Year 2 Fall (9 credits) | Grad Elective (500/600 level)  
| Grad Elective (500/600 level)  
| Thesis Work (CLSE 697)  
| PhD qualifying exam |
| Year 2 Spring (9 credits) | Grad Elective (500/600 level)  
| Grad Elective (500/600 level)  
| Thesis Work (CLSE 697) |
| Year 2 Summer (6 credits) | Thesis Work (CLSE 697) |
| Subsequent Years | Thesis Work (CLSE 697), 1 Grad Electives (500/600 level) |
| **Total Graduate Hours Required** | 60 (minimum) |

| Graduate School Requirements - | Concentration 15  
| Track Electives 18  
| Research 27 (min)  
| **TOTAL 60** |
## Program of study – Engineering M.S. to Ph.D in CLSE

### FALL ADMISSION

| Year 1 Fall (6 credits) | ENGR 591/CLSE 650 - Graduate Mathematics  
| (Choose 2 or 3) | CLSE 654 - Graduate Equilibrium Analysis  
| | Grad Elective (500/600 level)  
| | (Research Topic Selection)  
| Year 1 Spring (3 credits) | CLSE 655 - Graduate Non-Equilibrium Analysis  
| (Choose 0 or 1) | CLSE 656 - Graduate Reaction Engineering  
| | Grad Elective (500/600 level)  
| Year 1 Summer (6 credits) | Thesis Work (CLSE 697)  
| Year 2 Fall (9 credits) | PhD qualifying exam  
| | Thesis Work (CLSE 697)  
| Subsequent Years | Thesis Work (CLSE 697)  
| Total Graduate Hours Required | 30

### Graduate School Requirements - Concentration 6  
- Track Electives 1  
- Research 21 (min)  
- TOTAL 30