**NUCLEAR ENGINEERING – 4 Year Plan**

**Academic Year: 2020-2021**

**FIRST YEAR**

**Fall**
- **ENGR 199** Engineering Orientation (F, 3)
- **CH 201** Chemistry (F, W, 3)
- **MTH 251** Differential Calculus (F, W, S, 4)
- **WR 121** English Composition (F, W, S, 3)
- **Perspective** CD, SPI, LA, or DPD (3)

**Winter**
- **ENGR 102** Orientation II (W, 3)
- **CH 202** Chemistry (W, S, 3)
- **MTH 252** Integral Calculus (F, W, S, 4)
- **COMM 111/114** Speech (F, W, S, 3)
- **Perspective** CD, SPI, LA, or DPD (3)

**Spring**
- **ENGR 103** Orientation III (S, 3)
- **Lifetime Fitness** (F, W, S, 2)
- **PH 211** Physics w/ Calculus (W, S, 4)
- **MTH 254** Co-req: MTH 252 (F, W, S, 4)
- **PAC** (F, W, S, 1)

**SECOND YEAR**

**Fall**
- **ENGR 211** Statics (F, W, S, 3)
- **NSE 234** Nuclear & Radiation Physics I (F, 3)
- **MTH 256** Co-req: MTH 254 (F, W, S, 4)
- **ENGR 212** Dynamics (F, W, S, 3)
- **NSE 233** Mathematical Methods for NE (S, 3)

**Winter**
- **ENGR 213** Strength of Materials (F, W, S, 3)
- **NSE 235** Nuclear & Radiation Physics II (W, 3)
- **MTH 264** (2)
- **ENGR 211** & PH 212 (S, 4)
- **ENGR 201** Electrical Fundamentals (F, W, S, 3)

**Spring**
- **MTH 252** (S, 4)
- **NSE 236** Nuclear Radiation Detection & Instrumentation (S, 4)
- **Western Culture** (3)

(   ) The number within the parenthesis represent the credits of the course.
F, W, S: Represents the term the course is offered (Fall, Winter and Spring term respectively).

Rev. 6/2020
# NUCLEAR ENGINEERING – 4 Year Plan

## Academic Year: 2020-2021

### THIRD YEAR

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<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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| NSE 451 Neutronic Analysis  
F (3)  | NSE 452 Neutronic Analysis II  
W (3)  | ENGR 248 Engr Graphics and 3-D Modeling  
F,W,S (3) |
| NSE 11 Introduction to Thermal-Fluid Sciences  
F, W (4) | NSE 312 Thermodynamics  
W, S (4) | NSE 332 Heat Transfer  
F, S (4) |
| ENGR 390 Engineering Economy  
F,W,S (3) | ENGR 311 & MTH 256 | NSE 452 |
| WR 121 Technical Writing  
F,W,S (3) | WR 202 | NSE 331 Introductory Fluid Mechanics  
MTH 256  
W,S (4) |
| MATS 321 Introduction to Material Science  
F,W,S (4) | Biological Science  
F,W,S (4) | NSE 332  
W, S (4) |
| Perspective  
CD, LA, SPI or DPD (3) | | NSE 457 Nuclear Reactor Lab  
W, S (2) |

### FOURTH YEAR

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<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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| NSE 452  | NSE 473 Nuclear Reactor Systems Analysis  
F (3)  | NSE 474 Nuclear Systems Design I  
W (4) |
| MTH 256 & ENGR 212 | NSE 467 Nuclear Reactor Thermal Hydraulics  
F (4) | NSE 407 Seminar  
F,W (1) |
| NSE 311 & MTH 256 | NSE 332 | NSE 481 Radiation Protection  
F (4) |
| NSE 352 | NSE 235 | Synthesis  
F,W,S (3) |
| NSE 451 | NSE 352 & NSE 481 | NSE 435 & Synthesis  
F,W,S (3) |
| NSE 311 & MTH 256 | NSE 452 | NSE 407 Nuclear Reactor Lab  
S (2) |
| NSE 331 Introductory Fluid Mechanics  
W,S (4) | NSE 457 Nuclear Reactor Lab  
W, S (2) | NSE 415 Nuclear Rules and Regulations  
F (2) |
| NSE 407 Seminar  
F, W(1) | NSE 407 Seminar  
F, W(1) | Synthesis  
F,W,S (3) |
| Free Elective  
F,W,S (5) | Restricted Elective  
F,W,S (3) | Restricted Elective  
F,W,S (3) |

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