

### Requirement Sheet Key

◆ = Upper-Division Admission Requirements

### Mathematics (24 Credits)

- ◆ Math 124 (5cr) – Calculus I
- ◆ Math 125 (5cr) – Calculus II
- ◆ Math 126 (5cr) – Calculus III
- ◆ Math 307(3cr) – Differential Equations [pr: Math 125]
- Math 308 (3cr) – Matrix Algebra [pr: Math 126]
- One course from the following list:  
Math 309, Math/Stat 390 or Ind E 315  
(AMATH 351/352/353 may substitute for Math 307/308/309)

### Sciences (44 Credits)

- ◆ Chem 142 (5cr) – General Chemistry with lab
- ◆ Chem 152 (5cr) – General Chemistry with lab
- ◆ Chem 162 (5cr) – General Chemistry with lab  
(Chem 144 or 145 series can substitute for 124 series)
- Chem 237 (4cr) – Organic Chem or Chem 223 [pr: Chem 164]
- Chem 238 (4cr) – Organic Chem or Chem 224 [pr: Chem 237 or Chem 223]
- Chem 455 (3cr) – Physical Chem I [pr: Chem 164, Math 126, Phys 123]
- Chem 457 (3cr) – Physical Chem III
- ◆ Phys 121 (5cr) – Mechanics with lab [pr: Math 124]
- ◆ Phys 122 (5cr) – Electro/Oscillatory with lab [pr: Math 125]
- Phys 123 (5cr) – Waves with lab [pr: Math 126]

### Written & Oral Communications (12 Credits)

- ◆ ENGL 131 (5cr) – English Composition (or approved University course)
- HCDE 231 (3cr) – Intro to Technical Writing [pr: Engl. Comp]
- HCDE 333 (4cr) – Adv. Tech Writing [pr: HCDE 231]  
-or- department approved elective

### Visual, Literary & Performing Arts/ Individuals & Society (VLPA/I&S) (24 Credits)

Minimum 10 credits in VLPA required.  
Minimum 10 credits in I&S required.  
Remaining 4 credits can be either VLPA or I&S.

### Engineering Fundamentals (20 Credits)

- AMATH 301(4cr) – Beg. Scientific Computing (preferred)
- or-
- CSE 142 (4cr) – Computer Programming I
- Electives (16cr) – See department for list of approved courses

### ChemE Core Courses (51 Credits)

- Chem E 310 (4cr) – Material and Energy Balances
- Chem E 325 (4cr) – Energy & Entropy [pr: Chem 144, Math 126, Phys 121]
- Chem E 326 (4cr) – Chem. Engineering Thermodynamics
- Chem E 330 (5cr) – Transport Processes I
- Chem E 340 (4cr) – Transport Processes II
- Chem E 435 (4cr) – Transport Processes III
- Chem E 436 (3cr) – Chem. Engineering Lab I
- Chem E 437 (3cr) – Chem. Engineering Lab II
- Chem E 455 (3cr) – Surface and Colloid Science Lab
- Chem E 465 (4cr) – Reactor Design
- Chem E 480 (4cr) – Process Dynamics and Control
- Chem E 485 (4cr) – Process Design I
- Chem E 486 (5cr) – Process Design II

### Free Electives (5 Credits)

### Total Credits Required for Graduation (180 Credits)

#### Early Admission Requirements

1. Early Admission is an option for Autumn Quarter Only.
2. Students must be enrolled at UW-Seattle.
3. Math 124, 125 & 126 or equivalent.
4. PHYS 121; Chem 144, 154 and 164.
5. 5 credits of English Composition.
6. 15 Of the above 30 credits must have been completed at UW.

#### Application Deadlines

Early Admission – July 1st  
Upper Division Admission – February 1st

<b>Freshman – Autumn Quarter</b>		<b>Freshman – Winter Quarter</b>		<b>Freshman – Spring Quarter</b>	
◆ Math 124 – Calculus I	5	◆ Math 125 – Calculus II	5	◆ Math 126 – Calculus III	5
◆ Chem 142 – Chem & Lab I	5	◆ Chem 152 – Chem & Lab II	5	◆ Chem 162 – Chem & Lab III	5
◆ English Composition	5	VLPA/I&S	5	◆ Phys 121 – Mechanics & Lab I	5
Quarter Total	15	Quarter Total	15	Quarter Total	15
<b>Sophomore – Autumn Quarter</b>		<b>Sophomore – Winter Quarter</b>		<b>Sophomore – Spring Quarter</b>	
Chem 237/223 – Organic Chem	4	Chem 238/224 – Organic Chem	4	ChemE 310 – Matl/Enrgy Balance	4
◆ Phys 122 – Electro & Lab I	5	Phys 123 – Waves & Lab I	5	*Math 309 – Linear Analysis	3
◆ *Math 307 – Diff. Equations	3	*Math 308 – Matrix Algebra	3	HCDE 333 – Adv Technical Writing	3
HCDE 231- Intro to Tech. Writing	3	AMATH 301– Sci.Computing	4	VLPA/I&S	5
Quarter Total	15	Quarter Total	16	Quarter Total	15
<b>Junior – Autumn Quarter</b>		<b>Junior – Winter Quarter</b>		<b>Junior – Spring Quarter</b>	
ChemE 325 – Energy & Entropy	4	ChemE 326 – Thermodynamics	4	ChemE 340 – Transport Process II	4
Chem 455 – Phys Chem I	3	ChemE 330 – Transport Process I	5	ChemE 436 - Chem E Lab 1	3
Engineering Elective	4	Engineering Elective	4	Chem 457 – Phys Chem III	3
VLPA/I&S	5	VLPA/I&S	3	VLPA/I&S	4
Quarter Total	16	Quarter Total	16	Quarter Total	14
<b>Senior – Autumn Quarter</b>		<b>Senior – Winter Quarter</b>		<b>Senior – Spring Quarter</b>	
ChemE 435 – Transport Process III	4	ChemE 437 – Chem Engr lab II	3	ChemE 486 – Process Desgn II	5
ChemE 455 – Colloid Lab	3	ChemE 480 – Process Dynamics	4	Engineering Elective	5
ChemE 465 – Reactor Design	4	ChemE 485 – Process Design I	4	VLPA/I&S	2
FREE Elective	4	Engineering Elective	3		
Quarter Total	15	Quarter Total	14	Quarter Total	12

**Bold face** courses are required for upper-division admission.

\*Math 307,308 & 309 may be substituted with AMATH 351, 352 & 353

See Chemical Engineering Advising Guide for list of engineering electives

**For more information contact:**

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