

Lake Superior State University American Chemical Society Degree Certification – Visual Checklist

LABORATORY HOURS

Introductory Experience

#CHEM115 General Chemistry I (5 cr) 42 lab hours*

#CHEM116 General Chemistry II (4 cr) 42 lab hours*
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(Can't Count Gen. Chem. Hours)

Sem./Grade: _____

REQUIRED ACTUAL

Foundation Level

(Must take All 5)

#CHEM225 Organic Chemistry I (4 cr) 42 lab hours*

#CHEM231 Quantitative Analysis (4 cr) 42 lab hours*

#CHEM451 Biochemistry I (4 cr) 42 lab hours*
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#CHEM461 Advanced Inorganic Chemistry (3 cr) No lab hours

#CHEM361 Physical Chemistry I (4 cr) No lab hours

Sem./Grade: _____

126= Lab hr _____

In-Depth Level

(must Have

At least 12 hr.)

#CHEM226 Organic Chemistry II (4 cr) 42 lab hours*
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#CHEM332 Instrumental Analysis (4 cr) 42 lab hours*

CHEM452 Biochemistry II (3cr) No lab hours
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#CHEM462 Adv.Inorganic Chemistry Lab (1 cr) 42 lab hours*

#CHEM362 Physical Chemistry II (4 cr) 42 lab hours*

CHEM341 Environmental Chemistry I (4 cr) 42 lab hours*
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CHEM342 Environmental Chemistry II (4 cr) 42 lab hours*

CHEM445 Forensic Science (4 cr) 42 lab hours*

CHEM450 Lab Apprenticeship (1 cr) 42 lab hours*

CHEM490 Ind. Study in Chemistry (1-4 cr) No Lab hours

CHEM353 Intro. Toxicology (3 cr) No lab hours

INTD 399 Internship in Chem. (1-4 cr) 42 lab hours** (min.)

274 min.= Lab hr _____

#CHEM 495 Senior Project (0,3-9) 1-3 cr. hr. 42 lab hours** (min.) Required for ACS degree C or better with written report and faculty evaluation and approval. Max. 168 hr. towards ACS.
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Total= 400 hr. or more for ACS between Foundation and In-Depth Level

Cognates

#CHEM395 Junior Seminar (1 cr) No lab hours C or better
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#CHEM499 Senior Thesis (1cr) No lab hours C or Better
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#MATH 151 Calculus I And #MATH 152 Calculus II (8 cr)
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#PHYS 231 App. Phys. I And #PHYS 232 App. Phys II (8 cr)

OR

PHYS 221 Elem. Phys. I And PHYS 222 Elem. Phys. II (8 cr)
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*Based on semester of laboratory that meets for 3 hours per week.
**Based on semester of laboratory that meets for 6 hours per week.

Required for B.S. in Chemistry

Fall 2011