CS202: Discrete Math and Applications   CS286: Computer Architecture   3.00	JOR REQUIREMENTS/COMPUTER SCIENCE: 51 Credits	Credi	ts
CS175: Introduction to Computer Science   CS176: Introduction to Computer Science   4.0.			
CS176: Introduction to Computer Science II	CS102: Introduction to Co	mputing and Problem Solving	4.0
CS176: Introduction to Computer Science II			4.0
CS202: Discrete Math and Applications   3.0		•	4.0
CS286: Computer Architecture		•	
CS205: Data Structures and Algorithms   CS325: Software Engineering Concepts   3.0.		• •	
CS326: Software Engineering Concepts	· · · · · · · · · · · · · · · · · · ·		
CS310: Advanced Object Oriented Programming/Design		<u> </u>	
CS432: Database Systems	-	•	
CS438: Operating Systems Analysis CS490: Senior Project  Take 6 Credits of Computer Science 200+ level: CS200+: [See Exceptions*] CS200+: [See Exceptions*]  "Except the following courses: CS288, CS388, CS488, CS212 CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level: CS400+: [Except CS488]  MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry II/Lab AND CE112/CE112L: General Chemistry III/Lab  *OR* PH211/PH211L: General Physics with Calculus II/Lab AND PH212/PH212L: General Physics with Calculus II/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry I and Lab CE221 and CE221L: Quantitative Analysis and Lab CE221 and CE221L: Quantitative Analysis and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab CE241 and CE241L: Organic Chemistry III CHITCHITCHITCHITCHITCHIT	-		
Take 6 Credits of Computer Science 200+ level:  CS200+: (See Exceptions*)  CS200+: (See Exceptions*)  "Except the following courses:  CS288, CS388, CS488, CS212  CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level:  CS400+: (Except CS488)  UIREMENTS OUTSIDE MAJOR: 26 Credits  MA125: Calculus with Analytic Geometry I  MA126: Calculus with Analytic Geometry II  MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group:  CE111/CE111L: General Chemistry I/Lab AND  CE112/CE112L: General Chemistry I/Lab AND  CE112/CE112L: General Physics with Calculus I/Lab AND  PH211/PH211L: General Physics with Calculus I/Lab AND  PH212/PH212L: General Physics with Calculus I/Lab AND  BY109: Introduction to Biodiversity and Evolution  BY111: Anatomy and Physiology I  BY223: General Microbiology  CE111 and CE111L: General Chemistry I and Lab  CE221 and CE22L: Environmental Chemistry I and Lab  CE221 and CE22L: Cumit Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Compute Introduction I Cemitstry I and Lab  CE221 and CE22L: Cemitstry I and Lab  CE221 and CE22L: Cemits Introduction I Cemitstry I and Lab  CE221 and CE22L: Cemits Introduction I Cemitstry I and Lab  CE221 and CE22L: Cemits Introduction I Cemitstry I and Lab  CE221 and CE22L: Cemits Introduction I Cemitstry I and Lab  CE221 and CE22L: Cemits Introduction I Cemitstry I Cemits Introduction I Cemits Intr			
Take 6 Credits of Computer Science 200+ level:  CS200+: [See Exceptions*]  CS200+: [See Exceptions*]  Except the following courses: CS288, CS388, CS488, CS212  CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level:  CS400+: [Except CS488]  UIREMENTS OUTSIDE MAJOR: 26 Credits  MA125: Calculus with Analytic Geometry I  MA126: Calculus with Analytic Geometry II  MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group:  CE111/CE111L: General Chemistry II/Lab  *OR*  PH211/PH211L: General Physics with Calculus II/Lab AND  CE112/PH212L: General Physics with Calculus II/Lab  *OR*  BY109: Introduction to Biodiversity and Evolution AND  BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I  BY23: General Microbiology  CE111 and CE111L: General Chemistry I and Lab  CE220 and CE220L: Environmental Chemistry and Lab  CE221 and CE221L: Countitative Analysis and Lab  CE241 and CE221L: Countitative Analysis and Lab  CE241 and CE221L: Greeral Physics with Calculus I and Lab  Take 3 Credits from the following courses:  PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		-	
CS200+: (See Exceptions*) CS200+: (See Exceptions*)  *Except the following courses: CS288, CS388, CS488, CS212 CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level: CS400+: (Except CS488)  UIREMENTS OUTSIDE MAJOR: 26 Credits  MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry II/Lab AND CE112/CE112L: General Physics with Calculus II/Lab  *OR* PH211/PH211L: General Physics with Calculus II/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE221 and CE221L: Quantitative Analysis and Lab	CS490: Senior Project		4.0
CS200+: (See Exceptions*)  *Except the following courses: CS288, CS388, CS488, CS212 CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level:  CS400+: (Except CS488)   MA125: Calculus with Analytic Geometry I  MA126: Calculus with Analytic Geometry II  MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry II/Lab  *OR* PH211/PH211L: General Chemistry III/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry I and Lab CE221 and CE241L: Organic Chemistry I and Lab CE241 and CE241L: Organic Chemistry I and Lab CE241 and CE241L: Organic Chemistry I and Lab CE241 and PH211L: General Physics with Calculus I and Lab CE241 and PH211L: General Physics with Calculus I and Lab CE241 and PH211L: General Physics with Calculus I and Lab CE241 and CE241L: Organic Chemistry I and Lab CE241 and CE241L: Quantitative Analysis and Lab CE241 and CE241L: Quantitative Analysis and Lab CE241 and CE241L: Quantitative Analysis with Calculus I and Lab CE241 and CE250, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	Take 6 Credits of Computer So	ence 200+ level:	6.0
**Except the following courses: CS288, CS388, CS388, CS212 CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level: CS400+: **[Except CS488]**  MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I 3.0  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab **AND CE112/CE112L: General Chemistry II/Lab **AND PH212/PH212L: General Chemistry II/Lab **AND PH212/PH212L: General Physics with Calculus I/Lab **AND PH212/PH212L: General Physics with Calculus II/Lab **OR* BY109: Introduction to Biodiversity and Evolution **AND* BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	CS200+: (See Exceptions	*)	
**Except the following courses: CS288, CS388, CS488, CS212 CS222, CS302, CS312, CS316, CS320, CS322, and CS330  Take 3 Credits of Computer Science 400+ level: CS400+: (Except CS488)  MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry II/Lab AND CE112/CE112L: General Chemistry III/Lab *OR* PH211/PH211L: General Physics with Calculus II/Lab AND PH212/PH212L: General Physics with Calculus II/Lab *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	CS200+: (See Exceptions	*)	
Take 3 Credits of Computer Science 400+ level:  CS400+: (Except CS488)  MA125: Calculus with Analytic Geometry I  MA126: Calculus with Analytic Geometry II  MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group:  CE111/CE111L: General Chemistry II/Lab AND  CE112/CE112L: General Physics with Calculus II/Lab  *OR*  PH211/PH211L: General Physics with Calculus II/Lab  *OR*  BY109: Introduction to Biodiversity and Evolution AND  BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology  CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 And PH211L: General Physics with Calculus I and Lab PH211 And PH211L: General Physics with Calculus I and Lab PH211 And PH211L: General Physics with Calculus I and Lab PH211 And PH211L: General Physics with Calculus I and Lab PH311, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			
UIREMENTS OUTSIDE MAJOR: 26 Credits  MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry I/Lab OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE221 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			
UIREMENTS OUTSIDE MAJOR: 26 Credits  MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry I/Lab OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE221 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			
MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus I/Lab OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE221 and CE221L: Quantitative Analysis and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		ence 400+ level:	3.0
MA125: Calculus with Analytic Geometry I MA126: Calculus with Analytic Geometry II MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab  *OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	CS400+: (Except CS488)	<del></del>	
MA126: Calculus with Analytic Geometry II  MA319: Probability and Statistics I  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab  *OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses:  H301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	UIREMENTS OUTSIDE MAJOR: 26 Credits	Credit	ts
MA126: Calculus with Analytic Geometry II  MA319: Probability and Statistics I  3.0  Take 8 credits from subjects BY, CE, PH: Take one group: CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab  *OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses:  H301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			_
Take 8 credits from subjects BY, CE, PH: Take one group:  CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab  *OR*  PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab  *OR*  BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		·	
Take 8 credits from subjects BY, CE, PH: Take one group:  CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab  *OR*  PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab  *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			4.0
CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab *OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	MA319: Probability and St	atistics I	3.0
CE111/CE111L: General Chemistry I/Lab AND CE112/CE112L: General Chemistry II/Lab *OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	Take 8 credits from subjects B	Y. CE. PH: Take one group:	8.0
*OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		· · · · · · · · · · · · · · · · · · ·	
*OR* PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		· —	
PH211/PH211L: General Physics with Calculus I/Lab AND PH212/PH212L: General Physics with Calculus II/Lab *OR*  BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			
PH212/PH212L: General Physics with Calculus II/Lab *OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		hysics with Calculus I/I ab. AND	
*OR* BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses: BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses:  PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		· —	
BY109: Introduction to Biodiversity and Evolution AND BY110: Introduction to Cell and Molecular Biology  Take 4 additional credits (not taken above) from the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		Trysics with Galculus II/Lab	
Take 4 additional credits (not taken above) from the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	_	liversity and Evolution AND	
Take 4 additional credits (not taken above) from the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		· —	
the following courses:  BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses:  3.0 PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	BTTTO: Introduction to Cer	and Molecular Biology	
BY109: Introduction to Biodiversity and Evolution BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses:  3.0 PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	Take 4 additional credits (not t	aken above) from	4.0
BY111: Anatomy and Physiology I BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab Take 3 Credits from the following courses:  3.0 PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	the following courses:		
BY223: General Microbiology CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	BY109: Introduction to Bio	liversity and Evolution	
CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	BY111: Anatomy and Phys	iology I	
CE111 and CE111L: General Chemistry I and Lab CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320	BY223: General Microbiolo	qv	
CE220 and CE220L: Environmental Chemistry and Lab CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		<u>.</u>	
CE221 and CE221L: Quantitative Analysis and Lab CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses: PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			
CE241 and CE241L: Organic Chemistry I and Lab PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses:  PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320		•	
PH211 and PH211L: General Physics with Calculus I and Lab  Take 3 Credits from the following courses:  PH301, PH302, BY201, BY205, BY214, BY220, BY221,  MA211, MA221, MA225, or MA320		· · · · · · · · · · · · · · · · · · ·	
Take 3 Credits from the following courses:  9.00 9.00 9.00 9.00 9.00 9.00 9.00 9.	_		
PH301, PH302, BY201, BY205, BY214, BY220, BY221, MA211, MA221, MA225, or MA320			
MA211, MA221, MA225, or MA320			3.0
F F1 F0TIVF0: 40 One 4/4	MA211, MA221, MA225, o	MA320	
E ELECTIVES: 18 Credits Credits  18.	E ELECTIVES: 18 Credits	Credit	

## **MONMOUTH UNIVERSITY CURRICULUM CHART**

## Bachelor of Science in Computer Science with a Concentration in Advanced Computing

FY-101: First Year Seminar  EN101: College Composition I	3.0
	2.0
EN102: College Composition II	3.0 3.0
Fulfilled in Outside Major Requirements with MA125 or MA126	0.0
Fulfilled in Outside Major Requirements with required courses	0.0
3 Credits from courses designated with Course*Type: LIT	3.0
3 Credits from Art, Music, Theatre, or Dance	3.0
Fulfilled in Major Requirements with CS102	0.0
Fulfilled in Outside Major Requirements with CS490	0.0
3 Credits from courses designated with Course*Type: HS.SV	3.0
3 Credits from courses designated with Course*Type: SS.SV	3.0
3 Credits from courses designated with Course*Type: HS.SV or 3 Credits from courses designated with Course*Type: SS.SV	3.0
3 Credits from courses designated with Course*Type: ISP	3.0
3 Credits from courses designated with Course*Type: CD and 3 Credits from courses designated with Course*Type: GU or 6 Credits from the SAME foreign language	6.0
One course designated with Course*Type: EX	0.0
Two courses from Computer Science (CS) designated with Course*Type: WT	0.0 0.0
	Fulfilled in Outside Major Requirements with required courses  3 Credits from courses designated with Course*Type: LIT  3 Credits from Art, Music, Theatre, or Dance  Fulfilled in Major Requirements with CS102  Fulfilled in Outside Major Requirements with CS490  3 Credits from courses designated with Course*Type: HS.SV  3 Credits from courses designated with Course*Type: SS.SV  3 Credits from courses designated with Course*Type: SS.SV  or 3 Credits from courses designated with Course*Type: SS.SV  3 Credits from courses designated with Course*Type: SS.SV  3 Credits from courses designated with Course*Type: GD  and 3 Credits from courses designated with Course*Type: GU  or 6 Credits from the SAME foreign language  One course designated with Course*Type: EX  Two courses from Computer Science (CS) designated

Minimum Credits for Bachelor of Science in Computer Science with a Concentration in Advanced Computing = 128.0

## NOTES:

<sup>\* 58</sup> credits must be completed at the 200 level or higher.