

Name: \_\_\_\_\_

ID: \_\_\_\_\_

**NORTH DAKOTA STATE UNIVERSITY**  
 College of Engineering and Architecture  
**Biosystems Engineering Concentration**

T = Transfer Credit  
 IP = Course is 'In Progress'

Fall 2012

General Education Requirements - 40 Credits Required					Biosystems Concentration - 92 Credits Required				
Course	Number	Course Title	Credits	Grade	Course	Number	Course Title	Credits	Grade
First Year Experience (F)			1 Sem Credit		<b>ABEN Courses - 29 Credits Required</b>				
ABEN	189 <sup>1</sup>	Skills for Academic Success	1		ABEN	110	Introduction to ABEN	2	
Communication (C)			12 Sem Credits		ABEN	255	Computer Aided Analysis/Design	3	
ENGL	110	College Composition I	3		ABEN	263	Biological Materials Processing	3	
ENGL	120	College Composition II	3		ABEN	444	Transport Processes	3	
COMM	110	Fund of Public Speaking	3		ABEN	482	Instrumentation and Measurements	3	
ENGL*			3		ABEN	486	Design Project I	2	
Quantitative Reasoning (R)			3 Sem Credits		ABEN	487	Design Project II	2	
MATH	165	Calculus I	4		ABEN	491	Seminar	1	
Science & Technology (S)			10 Sem Credits		ABEN	496	Field Experience/Ag Technology Expo	1	
CHEM	121/L	General Chemistry I/Lab	3/1		<b>ABEN Electives - 9 Credits Required</b>				
PHYS	252/L	University Physics II/Lab	4/1					3	
CHEM	122L	General Chemistry II Lab	1					3	
Humanities & Fine Arts (A)			6 Sem Credits					3	
			3		<b>MATH Courses - 11 Credits Required</b>				
			3		MATH	128	Intro to Linear Algebra	1	
Social & Behavioral Sciences (B)			6 Sem Credits		MATH	166	Calculus II	4	
			3		MATH	259	Multivariate Calculus	3	
			3		MATH	266	Intro to Differential Equations	3	
Wellness (W)			2 Sem Credits		<b>ME Courses - 9 Credits Required</b>				
			2		ME	221	Engineering Mechanics I	3	
Cultural Diversity (D)					ME	222	Engineering Mechanics II	3	
					ME	350	Thermodynamics	3	
Global Perspectives (G)					<b>Additional Courses - 18 Credits Required</b>				
					BIOL	150	General Biology	3	
<sup>1</sup> Students transferring in 24 or more credits do not need to take ABEN 189.  *Select from ENGL 321, 324, or 459					CHEM	122	General Chemistry II	3	
					CHEM	240	Survey of Organic Chemistry	3	
					CE	309	Fluid Mechanics	3	
					ENGR	402	Engineering Ethics & Social Respon	1	
					IME	440	Engineering Economy	2	
					IME	460	Evaluation of Engineering Data	3	
					<b>Program Electives - 25 Credits Required (approved courses on backside)</b>				
					<b>ENGR Electives - 9 Credit Required</b>				
								3	
								3	
			3						
<b>CHEM/BIOL Electives - 6 Credits Required</b>									
			3						
			3						
<b>Technical Electives - 7 Credits Required</b>									
			3						
			4						
<b>Computer Elective - 3 Credits Required</b>									
			3						
<b>Total Credits Required for Graduation:</b>			<b>133</b>						

