

**Major: BA-- Mathematics/Applied(Pre-Engineering -- Biosystems Engineering)**

**I. TOTAL UNIVERSITY ORIENTATION**

UNV 101/102 University Orientation

Credit	Grade	Semester
1		

**II. GENERAL STUDIES**

**A. Language and Reasoning**

ENG 101 English Composition I  
 ENG 102 English Composition II  
 SPE 103 Interpersonal Communication  
 MAT 131 Calculus I  
 Foreign Language I  
 Foreign Language II

3		
3		
3		
5		
3		
3		
<b>20</b>		

**Total**

**B: Fine Arts and Letters (Select One)**

ART 130 Introduction to Art **OR**  
 THE 130 Introduction to Theatre **OR**  
 MUS 130 Introduction to Music **OR**  
 ENG 211 Introduction to Literature

<b>3</b>		

**Total**

**C. Social and Behavioral Science (Select Two Courses)**

POS 101 American Government **OR**  
 FIN 101 Financial Literacy **OR**  
 HIS 103 Western Civilization **OR**  
 ECO 200 Survey of Economics **OR**  
 PSY 200 General Psychology **OR**  
 SOC 203 Principles of Sociology

<b>6</b>		

**Total**

**D. Natural Sciences**

PHY 211 General Physics I  
 PHY 212 General Physics II

5		
5		
<b>10</b>		

**Total**

**E. Integrative Studies**

IGS 200 Foundations of Cultures  
 IGS 201 Convergence of Cultures

3		
3		

**Select ONE COURSE from Below**

IGS 300 Search for New Forms of Culture **OR**  
 IGS 301 Studies in African Cultures **OR**  
 IGS 302 Studies in Asian Cultures **OR**  
 IGS 303 Studies in Latin American Cultures **OR**  
 IGS 305 The Latino Experience **OR**  
 COS 303 Human Perspective on Computing **OR**  
 ENG 313 Non-Western Literature **OR**  
 ENG/AAS Literature of African-Americans **OR**  
 MAT 304 Perspectives on Mathematics **OR**  
 MGT International Bus. Management/International Bus. Marketing **OR**  
 MUS/AAS African-American Music **OR**  
 MUS/AAS Jazz istory and LiteratureHistory and Literature **OR**  
 MUS 333 Music of Africa and Asia

<b>9</b>		

**Total**

**TOTAL GENERAL STUDIES**

<b>48</b>		
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**III. MAJOR: Mathematics/Applied(Pre-Engineering -- Biosystems Engineering)**

**A. Core Requirements**

MAT 131	Calculus I (Satisfied in General Studies)
MAT 132	Calculus II
PHY 211	General Physics I (Satisfied in General Studies)
PHY 212	General Physics II (Satisfied in General Studies)
<b>Total Core</b>	

Grade	Semester
5	
<b>5</b>	

**B: Concentration/Specialization**

PHY 311	Engineering Statics
PHY 320	Engineering Thermodynamics
PHY 350	Electrical Circuits
<b>Total Concentration</b>	

3	
3	
4	
<b>10</b>	

**C. Supporting Courses**

BIO 111	Principles of Biology
CHE 101	General Chemistry I
CHE 102	General Chemistry II
CHE 110	General Chemistry Lab I
CHE 120	General Chemistry Lab II
COS 108	Principles of Computer Science I
MAT 231	Calculus III
MAT 232	Calculus IV
MAT Elec	Either MAT 315, MAT 321 or MAT 333
PHY 390	Special Topics (Capstone Course)
<b>Total Support Courses</b>	

4	
3	
3	
1	
1	
4	
3	
3	
3	
3	
<b>28</b>	
<b>43</b>	

**TOTAL MAJOR**

**IV. ELECTIVES**

**A. 300-400 Courses (Degree program must have at least 42 hours of 300-400 courses)**

\_\_\_\_\_ Courses transfer from UK to reach 120 hours total which depend upon particular engineering program.

26	
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**B. Free Electives**

\_\_\_\_\_ Free Electives

2	
<b>28</b>	

**TOTAL FREE ELECTIVES**

**TOTAL DEGREE PROGRAM**

<b>120</b>
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*Note: Courses beginning with a zero (0XX-Developmental courses) do not count toward graduation)*