

PIMA COMMUNITY COLLEGE TRANSFER PATHWAY

BIOSYSTEMS ENGINEERING B.S.

Students in biosystems engineering may customize their academic plan to fit their career interest. Emphasis areas include: **Controlled Environment Agriculture; Water Resources; Biometry and Biosystems Informatics; and Food, Bioproducts and Renewable Energy.**

BIOSYSTEMS ENGINEERING

Biosystems engineers use engineering, math, and life science to design systems to manage soil and water resources, produce food, develop biological products, and manage and analyze large data sets. They work on projects involving wise use of energy, materials, biochemicals, and recyclable wastes. They combine technical knowledge, computer techniques, and control systems for a deeper understanding of agriculture and biology— knowledge which someday may be used to design life support systems for colonies on other planets. Students may specialize in water resource engineering or biological engineering.

PRE-HEALTH

Students who wish to prepare for medical school or careers in medical research may choose the pre-health focus within Biometry and Biosystems Informatics. Completion of Biosystems Engineering pre-health provides students with the necessary biological basics and helps them develop excellent problem solving skills. Students completing their study in Biosystems Engineering pre-health satisfy all of the requirements for acceptance into medical school at the University of Arizona and for the majority of medical schools in the United States. Additionally, Biosystems Engineering pre-health graduates have exceptionally high acceptance rates to medical school.

TRANSFER EQUIVALENCIES

On the following page you will find course equivalencies for **Biosystems Engineering**. The information presented is a recommended outline of courses for students to take at Pima Community College that will transfer as equivalent courses to the University of Arizona. Please consult with a transfer admissions counselor and academic advisor to review specific courses as transfer pathways are subject to change.

The course equivalencies on the following page are from the AZTransfer course equivalency guide. The student's successful completion of each course will be reviewed in the pre-admission evaluation. Please note that all course work will be officially evaluated once your official transcript is processed by the University of Arizona. Students must receive a grade of a C or higher for a course to transfer.



Biosystems Engineering students receive hands-on experience building design prototypes for their capstone projects.

BIOSYSTEMS ENGINEERING

1st Semester

Pima CC Transfer Course	University of Arizona Course
MAT 220	MATH 122A/MATH 122B Calculus I
WRT 101	ENGL 101 First Year Composition
ENG 102IN	Satisfies ENGR 102 Intro to Engineering
CHM 151IN	CHEM 151 General Chemistry I
AGEC-S	General Education

2nd Semester

Pima CC Transfer Course	University of Arizona Course
MAT 231	MATH 129 Calculus II
WRT 102	ENGL 102 First Year Composition
PHY 210IN	PHYS 141 Introductory Mechanics
CHM 152IN	CHEM 152 General Chemistry II
AGEC-S	General Education

3rd Semester

Pima CC Transfer Course	University of Arizona Course
MAT 241	MATH 223 Vector Calculus
BIO 181IN or BIO 184IN	MCB 181R & MCB 181L General Biology I or PLS 240 Plant Biology
ENG 210	CE 214 Statistics
ENG 232	BE 284 Thermo Dynamics
AGEC-S	General Education

4th Semester

Pima CC Transfer Course	University of Arizona Course
MAT 262	MATH 254 Differential Equations
BIO 182IN or BIO 201IN or BIO 205IN	ECOL 182R & ECOL 182L General Biology II or PSIO 201 Human Anatomy & Physiology I or MIC 205A & MIC 205L Microbiology
PHY 216IN	PHYS 241 Introductory Electricity & Magnetism
AGEC-S	General Education
Elective	Elective Credit
STU 210	Elective Credit