

BIOFUELS PRODUCTION & SUSTAINABILITY



A.A.S. Degree

Minimum 62 hours

Career & Technical Education • Associate in Applied Science Degree • Minimum 2.0 OGPA • Major Code: DBPS

FIRST YEAR

Fall Semester		Credit Hrs
ENG 121	Rhetoric & Composition I	3
ENGY 111	Introduction to Biofuels	3
BIOL 141*	Environmental Science	4
ENGY 115	Agriculture Wastes to Biofuels	1
ENGY 213	Algae Feedstocks	1
ELECTIVE (see below)		3
Total Hours		15

Spring Semester		Credit Hrs
ENGY 151	Ethanol Production	3
MATH 151*	Occupational Math (or higher level)	4
IT 119	Basic Software Applications	3
CHEM 123	Basic Inorganic/Organic Chemistry	4
Total Hours		14

SECOND YEAR

Fall Semester		Credit Hrs
ENGY 131	Biodiesel Production	3
ENGY 113	Plant Maintenance	3
COM 146*	Business & Professional Communication	3
FCS 124	Introduction to Nutrition	3
BTC 121	Scientific Literature for Biotechnology	3
Total Hours		15

Spring Semester		Credit Hrs
ENGY 211	Biofuels System Technology	3
PSYC 131 or PSYC 121*	Human Relations Introduction to Psychology	3
ELECTIVE (see below)		3
ELECTIVE (see below)		3
BUS ELECTIVE (see below)		3
Total Hours		15

Summer Semester		Credit Hrs
ENGY 270 or Elective	Biofuels Internship (1-3 credit hours) and/or Elective (must total 3 hours)	3
Total Hours		3

*Students planning to transfer should take MATH 144 Heart of Mathematics (instead of MATH 151), PSYC 121 Introduction to Psychology (instead of PSYC 131), COM 121 Principles of Speaking (instead of COM 146), and BIOL 121 Introductory Biology (instead of BIOL 141). For electives, students should take the following: ECON 121 Introduction to Macroeconomics, ECON 122 Introduction to Microeconomics, ENG 122 Rhetoric & Composition II, MATH 141 Statistics, a Humanities course (PHIL 121 Introduction to Philosophy, PHIL 122 Fundamentals of Logic, or PHIL 221 Fundamentals of Ethics) and a Fine Art course (ART 121 Art Appreciation, MUS 121 Music Appreciation, or THTR 121 Introduction to Theater).

ELECTIVE OPTIONS: Elective courses may be chosen from the following options based on the student's career focus:

- SAFE 131 OSHA General Industry Safety and Awareness Training
- Diesel Technology classes
- Business classes
- Welding classes
- ENGY 290, ENGY 299
- Courses may also be taken from other Building Illinois Bio-economy (BIB) Consortium programs/colleges, which are: Lewis and Clark, Lincoln Land and Carl Sandburg College. These courses may be taken and then transferred to SIC to be used as electives, with approval of an SIC advisor.

Note: Students at a distance may take courses that are not 100% online at their home community college. These students should work with SIC advisors to make sure the classes taken at their local college are equivalent to SIC's courses.

Occupational information about this program is available at O*NET online www.onetonline.org. Once at that website enter the SOC Code that is listed for this program. O*NET – SOC Code: 17-3029.00; 27-1021.00

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Learn more about our Biofuels programs at www.sic.edu/biofuels.



Career Opportunities:

Employment in a Biofuel Facility, Operator, Instrumentation Technician, Maintenance Technician.

Major Employers:

Ethanol Companies, Biodiesel Companies, Biofuels Companies, Ethanol Plants, Renewable Fuels Companies, Government Agencies