

Bachelor of Science – Industrial Engineering
Transfer Guide – Pikes Peak State College AES Students Transferring
to: Colorado State University Pueblo
Effective Starting in 2024

I. General Education Courses

	Credit Hours	PPSC Course Number and Title or gtPathways Category	CSU Pueblo Course (credits)
Written Communication	3	ENG 1021: English Composition I (GT-CO1)	ENG 101, 3 credits
Mathematics	5	MAT 2410: Calculus I (GT-MA1)	MATH 126, 5 cr
Arts & Humanities	3	One gtPathways Arts & Humanities course from (GT-AH1 , GT-AH2 , GT-AH3 , or GT-AH4); (or COM 1015 – Public Speaking at PPSC)	3 credits
Social & Behavioral Sciences	6	Two gtPathways Social & Behavioral Science courses from two different areas (GT-SS1 , GT-SS2 , or GT-SS3)	6 credits
Natural & Physical Sciences	10	PHY 2111 – Physics I-Calculus Based with Lab (GT-SC1) CHE 1111 – Gen Chemistry I with Lab (GT-SC1)	PHYS 221/L, 5 cr CHEM 121/L, 5cr
	27	TOTAL GEN ED CREDITS	27

II. Required Courses

Credit Hours	PPSC Course Number and Title	CSU Pueblo Course (credits)
5	MAT 2420– Calculus II (GT-MA1)	MATH 224, 5 cr
4	MAT 2430 Calculus III (GT-MA1) OR MAT 2431 Calculus III with Engineering Apps	Fulfills requirement for MATH 337, 3 cr
4	MAT 2560– Differential Equations (GT-MA1) OR MAT 2540: Linear Algebra OR MAT 2562 Differential Equations with Linear Algebra	Fulfills requirement for MATH 207, 3 cr
5	CHE 1112 – Gen Chemistry II with Lab (GT-SC1) OR PHY 2112 – Physics II-Calculus Based with Lab	CHEM 122/L OR PHYS 222/L, 5 credits
3	EGT 1101 Mechanical Design I	EN 107, 2cr
3	EGT 1110 OR EGG 1040 - Engineering Projects	EN 101, 3cr
4	EGG 145/1060 Engineering Computing	EN 103, 3cr
3	EGG 211/2011 Engineering Mechanics I - Statics	EN 211, 3cr
3	EGG 212/2012 Engineering Mechanics II - Dynamics	EN 212, 3cr
4	EGG 241/2041 Circuit Analysis I w/Lab	Science elective, 5cr
38	Total Required Courses	35 credits

65	TOTAL ASSOCIATE'S DEGREE CREDITS
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ASSOCIATE OF ENGINEERING SCIENCE DEGREE REQUIREMENTS (60 Credits):

Students should note that all required courses must be satisfactorily completed as part of the AES degree at the community college and will also transfer and apply to the bachelor's degree requirements at the receiving 4-year institution. However, if you're going to transfer before completing the AES degree, you may not need some of these courses. In that case, check with the receiving institution and an advisor for your options.

GUARANTEES & LIMITATIONS

1. **Completion of Associate's Degree:** This transfer guide identifies the courses a student needs to complete (with a C- or higher) to earn an AES degree at a Colorado community/junior college in order to be able to finish the designated baccalaureate degree. Per [Colorado Commission on Higher Education \(CCHE\) Policy I, L](#), students who complete an AES degree at a Colorado community/junior college and who are admitted to a Colorado public baccalaureate institution are guaranteed the following: the full transfer and application of a minimum of 64 credits toward the baccalaureate degree requirements at the Colorado institution of higher education; completion of the lower-division component of the receiving institution's general education core curriculum; and junior standing. Course credit may be applied to major, elective or other requirements at the receiving institution's discretion. If more than 64 college-level credits are taken or the student gets lower than a C- in one or more courses at the community/junior college, then some loss of transfer credit may occur, and students may not be able to complete this baccalaureate degree in 126 credits.
2. **Transfer Before Completing the Associate's Degree:** If the student intends to transfer prior to completing an AES degree, this transfer guide should still be used to identify the courses that can most effectively prepare them for efficiently completing the designated major at the baccalaureate institution to which they are transferring. While not completing the required associate's degree eliminates the guarantees described here, gtPathways general education courses identified in Section I are guaranteed to transfer and apply to the receiving institution's gtPathways lower division general education requirements. Students are strongly encouraged to finish course sequences (such as English Comp I & II or Calculus I, II & III) before transferring.

For additional information on CCHE transfer policies and gtPathways guaranteed transfer of general education credit, visit <http://highered.colorado.gov/Academics/Transfers/Students.html>. To file a transfer-related complaint with the Colorado Department of Higher Education, visit <http://highered.colorado.gov/Academics/Complaints/default.html>

The chart shown below illustrates the remaining requirements to complete the BS: Industrial Engineering after transferring to CSU Pueblo. 64 semester credits are the maximum amount of transfer credit allowed from two-year institutions. Therefore, the credits shown below **MUST** be completed at CSU Pueblo.

III. General Ed completion

Written Communication	ENG 102 English Composition II (or other GT- CO2)	3 credits
Humanities	CID 103 Speaking & Listening AND One Arts & Humanities OR two Arts & Humanities courses	3 credits 3 credits
History	One gtPathways History course (GT-HI1)	3 credits
Total credits		12

IV. Additional Major Required Courses

Additional Major Core Course Requirements		
EN 215	Introduction to Industrial and Systems Engineering (<i>Maybe online or zoom link synchronous to PPSC?</i>)	3
EN 321	Thermodynamics	3
EN 324/L	Materials Science and Engineering with Lab	4
EN 343	Engineering Economy	3
EN 375	Stochastic Systems Engineering	3
EN 420	Simulation Experiments	4
EN 430	Project Planning and Control	3
EN 439	Time and Motion Studies	2
EN 440	Safety Engineering	3
EN 441/L	Engineering and Manufacturing Processes with Lab	4
EN 443	Quality Control and Reliability	3
EN 471	Operations Research	3
EN 473/L	Computer Integrated Manufacturing with Lab	3
EN 475	Facility Planning and Design	3
EN 477	Operations Planning and Control	3
EN 486	Senior Seminar	2
EN 488	Industrial Engineering Design	3
Total Transfer Credit Applied Toward BS Degree		62
General Education completion for BS		12
Additional Major Credit Required for BS Degree		52
Total BS Degree Requirements		126