



Associate to Bachelors (A2B) Articulation Agreement

Prescribed Curriculum: Casper College

Associate of Science – Engineering (Industrial)

General Education Courses			27 CREDIT HOURS
	Credit Hours	Community College Course No.	Course Title or Category
Reasoning & Inquiry	4	CHEM 1020	General Chemistry I
Math Computation	4	MATH 2200	Calculus I
Written Comm	3	ENGL 1010	English Composition I
Oral Communication	3	COMM 2010	Public Speaking
Humanities	3	Select 1 course from	Humanities General Education (HU 0000) List
Social Science	3	PSYC 1000	General Psychology
Fine Arts	3	Select 1 course from	Fine Arts General Education (FA 0000) List
US-WY Constitution	3	Select 1 course from	US and Wyoming Constitutions (CNST 0000) List
Health Wellness	1	Select 1 course from*	Health and Wellness General Education (HW 0000) List

Required Courses			17 CREDIT HOURS
	Credit Hours	Course No.	Course Title
Mathematics & Science	4	MATH 2205	Calculus II
	4	PHYS 1310	College Physics I
Engineering	3	ES 1101*	Introduction to Engineering Study
	3	ES 1060	Introduction to Engineering Problem Solving
	3	ES 2110	Statics

Program Elective Courses			21 CREDIT HOURS
	Credit Hours	Course No.	Course Title
Program Elective	4	PHYS 1320	College Physics II
	4	CHEM 1030*	Chemistry II
	4	MATH 2210	Calculus III
	3	MATH 2310	Applied Differential Equations
	3	ES 2120	Dynamics
	3	ES 2310	Thermodynamics

Associate of Science – Engineering (Industrial) Total: 65 CREDIT HOURS

***(61 Credits Apply)**

Post-Associate Degree Prescribed Curriculum: South Dakota Mines

Bachelor of Science – Industrial Engineering and Engineering Management

General Education Courses			3 CREDIT HOURS
	Credit Hours	Community College Course No.	Course Title or Category
Written Communication	3	ENGL 289	Explorations in STEM Communications

Major Required Courses			56 CREDIT HOURS
	Credit Hours	Course No.	Course Title
Industrial Engineering	2	IENG 241L	Introduction to Quality Methods and Teaming
	3	IENG 381	Introduction to Probability and Statistics
	3	IENG 215	Cost Estimating for Engineers
	3	IENG 382	Probability Theory and Statistics II
	3	IENG 302	Engineering Economics
	3	IENG 311/311L	Work Methods and Measurements w/lab
	1	IENG 352	Creativity and Innovation
	1	IENG 354	Marketing Technology Innovations
	3	IENG 362	Stochastic Models
	3	IENG 486	Statistical Quality and Process Control
	3	IENG 321/321L	Ergonomics/Human Factors Engineering w/lab
	1	IENG 355	Financing Technology Innovations
	3	ENGM 435	Optimization Techniques
	3	IENG 441	Simulation
	3	IENG 425	Production and Operation Management
	3	IENG 464	Senior Design Project I
	3	IENG 471	Facilities Planning
	3	Select 1 course from	IENG 331 Safety Engineering or IENG 431 Industrial Hygiene
	3	IENG 366	Engineering Management
3	IENG 465	Senior Design Project II	
3	IENG 475	Computer-Controlled Manufacturing Sys and Robotics w/lab	

Elective Courses			10 CREDIT HOURS
	Credit Hours	Course No.	Course Title
Dept Approved	6	Select from list	Department Approved Electives
Professional	4	Select from list	Professional Breadth Electives

Post-Associate Degree Total: 69 CREDIT HOURS

Bachelor of Science – Industrial Engineering Total: 130 CREDIT HOURS

A2B Articulation Agreement Guarantees & Limitations

GUARANTEES

Students who:

1. complete the Associate of Science - Engineering degree prescribed curriculum at Casper College exactly as it is identified in this articulation agreement, **and**
2. have the degree conferred on their education record at Casper College (post high school graduation), **and**
3. earn a minimum cumulative grade point average (GPA) of 2.75 at the Casper College, **and**
4. pass all 65 credits for the associate degree, earning a grade C- or higher in each course

are **guaranteed** the following at the South Dakota School of Mines and Technology (South Dakota Mines):

1. junior standing at South Dakota Mines with no more than 69 remaining credits to meet the graduation requirements for the Bachelor of Science degree in Industrial Engineering and Engineering Management.
2. admission to South Dakota Mines
3. admission to the Bachelor of Science degree in Industrial Engineering and Engineering Management.

LIMITATIONS

1. This agreement is between the Associate of Science - Engineering degree at Casper College and the Bachelor of Science degree in Industrial Engineering and Engineering Management at South Dakota Mines only.
2. Students must meet all admission and application requirements at South Dakota Mines, including the submission of all required documentation by stated deadlines. Students are advised to contact the Office of Admissions at the South Dakota Mines early in their transfer planning.
3. Student must have a cumulative grade point average (GPA) at the Casper College of 2.75 or higher **and** only courses with grades of C- or higher are guaranteed to be accepted in transfer by South Dakota Mines.
4. The credit and course transfer guarantees described in this agreement apply to the Associate of Science degree at Casper College and the Bachelor of Science degree in Industrial Engineering and Engineering Management at South Dakota Mines. If the student changes majors at Casper College or at South Dakota Mines, the student is no longer covered by this Articulation Agreement and none of the Guarantees of the Agreement apply.
5. Students utilizing any form of transfer credit, including but not limited to credit awarded from other higher education institutions, standardized exam (CLEP, AP, DSST, etc.), prior learning assessment (military, certifications, ACE recommended credit, portfolio, challenge exam, work experience equivalent credit, etc.) to satisfy any Associate degree requirements will have those credits evaluated by South Dakota Mines. Should South Dakota Mines not accept the transfer credits accepted by Casper College, the student will be required to make up the credit deficiency at South Dakota Mines.
6. No course substitutions are allowed for the courses listed in the Prescribed Curriculum for the associate degree at Casper College.

A2B CONTACT INFORMATION

South Dakota Mines
Office of the Provost
605.394.2256
Provost@sdsmt.edu

Casper College
Academic Affairs
307.268.2229

Appendix A: Course Sequence

Course Sequence: Casper College

Engineering - Industrial (A.S.)

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman Year First Semester	CHEM 1020*	Chemistry I (Reasoning & Inquiry in Science Gen Ed)	4	
	COMM 2010*	Public Speaking (Oral Comm Gen Ed)	3	
	ES 1101	Introduction to Engineering Study	3	
	ES 1060	Intro to Engineering Problem Solving	3	
	MATH 2200*	Calculus I (Math Computation Gen Ed)	4	
<i>Total Credits</i>			17	

Semester	Course No.	Course Title	Credit Hours	Completed
Freshman Year Second Semester	CHEM 1030	Chemistry II (PEL 0000)	4	
	HU 0000*	Select 1 course from HU List (Humanities Gen Ed)	3	
	ES 2110	Statics	3	
	ENGL 1010*	English Composition I (Written Communication Gen Ed)	3	
	MATH 2205	Calculus II	4	
<i>Total Credits</i>			17	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore Year First Semester	PHYS 1310*	College Physics I	4	
	ES 2120	Dynamics (PEL 0000)	3	
	MATH 2210	Calculus III (PEL 0000)	4	
	FA 0000*	Select 1 course from FA List (Fine Arts Gen Ed)	3	
	HW 0000	Select 1 course from HW List (Health & Wellness Gen Ed)	1	
<i>Total Credits</i>			15	

Semester	Course No.	Course Title	Credit Hours	Completed
Sophomore Year Second Semester	PSYC 1000*	General Psychology (SSC 0000)	3	
	CNST 0000*	Select 1 course from US/WY Constitution List (Gen Ed)	3	
	ES 2310	Thermodynamics (PEL 0000)	3	
	MATH 2310	Applied Differential Equations I (PEL 0000)	3	
	PHYS 1320	College Physics II (PEL 0000)	4	
<i>Total Credits</i>			16	

*General Education Coursework Total:	30 credit hours
Major and Elective Coursework Total:	35 credit hours
Casper College Coursework Total:	65 CREDIT HOURS

Course Sequence: South Dakota Mines – Fall Semester Start

Industrial Engineering and Engineering Management (B.S.)

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year First Semester - FALL	IENG 381	Introduction to Probability & Statistics	3	
	IENG 352	Creativity and Innovation	1	
	IENG 311/311L	Work Methods and Measurements w/lab	3	
	IENG 354	Marketing Technology Innovations	1	
	IENG 486	Statistical Quality and Process Control	3	
	IENG 302	Engineering Economics	3	
	IENG 471	Facilities Planning	3	
Total Credits			17	

Semester	Course No.	Course Title	Credit Hours	Completed
Junior Year Second Semester - SPRING	IENG 382	Introduction to Probability & Statistics II	3	
	IENG 215	Cost Estimating	3	
	IENG 321/321L	Ergonomics/Human Factors Engineering w/lab	3	
	IENG 441	Simulation	3	
	IENG 241L	Introduction to Quality Methods and Teaming	2	
		Professional Elective	4	
Total Credits			18	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year First Semester - FALL	IENG 362	Stochastic Models	3	
	ENGM 435	Optimization Techniques	3	
	ENGL 289	Explorations in STEM Communication	3	
	IENG 464	Senior Design Project I	3	
	IENG 425	Production and Operation Management	3	
	IENG 331	Safety Engineering	3	
Total Credits			18	

Semester	Course No.	Course Title	Credit Hours	Completed
Senior Year Second Semester - SPRING	IENG 355	Financing Technology Innovations	1	
		Department Approved Elective	6	
	IENG 465	Senior Design Project II	3	
	IENG 366	Engineering Management	3	
	IENG 475/475L	Computer-Controlled Manufacturing Sys & Robotics w/lab	3	
Total Credits			16	

*General Education Coursework Total: 3 credit hours

Major and Elective Coursework Total: 66 credit hours

South Dakota Mines Coursework Total: 69 CREDIT HOURS