

CRITERION 1 - STUDENTS

This section describes the following topics as they relate to students entering the BS Metallurgical Engineering Program:

- Student Admissions
- Evaluating Student Performance
- Transfer Students and Transfer Courses
- Advising and Career Guidance
- Work in Lieu of Courses
- Graduation Requirements
- Transcripts of Recent Graduates

A. Student admissions

Admission standards apply to the institution overall and are not differentiated by program; however, all incoming freshmen at the SDSM&T are required to declare a major. When students apply for admission, their application lands in one of three categories

- Automatically admitted,
- Individually considered, and
- Transferring student.

Each category has its own processing procedures as now described.

Automatic Admission

The University automatically admits students who meet the general educational requirements and who

- Obtain an ACT composite score of 25 and obtain an ACT math sub score of 25 (or SAT composite of 1130 and SAT Math sub score of 580) and have a minimum cumulative GPA of 2.75 or
- Are South Dakota Regents' Scholars

Considered for Admission on an Individual Basis

The university considers for acceptance applicants who meet the general education requirements and the following criteria:

- Obtain an ACT composite score of at least 20 (or SAT composite score of 940), and
- Obtain an ACT math sub score of at least 20 (or SAT math sub score of 480), and
- Achieve a high school GPA of at least 2.75 on a 4.0 scale

Applicants who do not meet the ACT/SAT score threshold may be admitted depending on their sub score.

Transfer Students

Transfer students who have earned fewer than 24 semester credits must also meet the above freshman admission requirements above. Transfer students with 24 or more semester credits are eligible to be candidates for admission if they meet the following three standards:

- Have a cumulative college grade point average of 2.75 or higher
- Have proof of college algebra readiness.

- Are in good standing with their most-recently attended university.

Non-traditional students who are 24 or older and students seeking readmission are treated according to Board of Regents Policy 2:3, which states

Students who are under the age of twenty four (24) at the start of the term and who are transferring into associate degree programs with fewer than 12 transfer credit hours must meet the associate degree admission requirements. Students with 12 or more transfer credit hours with a cumulative GPA of at least 2.0 may transfer into associate degree programs. Specific degree programs may include additional admissions requirements

Incoming students are presumed to be enrolled in College Algebra (MATH 102) unless ACT or ACCUPLACER (www.accuplacer.org) results indicate otherwise. Upon acceptance and before the first semester, most new students are required to complete ACCUPLACER testing. ACCUPLACER is used primarily for placement into appropriate math courses. Additionally, prospective students with ACT scores older than 5 years and students with an ACT of 18 or lower in English are also required to take it. Also, students who have been automatically admitted because they have an ACT of 25 or higher in math must take the ACCUPLACER to be placed correctly in the math sequence. Admitted students with a math ACT above 20 but below 25 may opt to take the ACCUPLACER to be placed in a math course higher than College Algebra (MATH 102): namely Calculus I (MATH 123) or Trigonometry (Math 120).

Table 1-1 shows the average of incoming ACT math score for the BS Metallurgical Engineering program freshman and the average math ACT for the other campus programs under current ABET review. Table 112 shows the weighted average incoming ACT scores over this six-year period for the ACT for the programs under review.

Table 1-1 Average ACT math score

Fall Semester	BS MET ENG	All Programs
2010	26.3	26.5
2011	27.1	26.8
2012	27.3	26.9
2013	29.0	26.8
2014	27.3	26.9
2015	27.4	27.1
2010-15	27.4	26.8

Table 1-2 Average incoming freshman ACT scores for 2010-15 (*weighted averages)

Item	CENG	IE	CEE	GEOE	CSC	CHE	ME	MINE	MET	EE	Wt-Ave
Wt-Ave Comp	26.7	25.1	25.2	25.3	27.2	27.3	26.0	25.3	27.4	26.7	26.2
Wt-Ave ENGL	25.0	24.1	23.5	24.1	25.8	25.7	24.3	23.6	26.1	25.1	24.7
Wt-Ave Math	27.1	26.2	26.3	25.4	27.6	27.8	27.1	25.9	27.4	27.5	26.8
Ave Reading	26.9	25.2	24.9	25.7	27.3	27.1	25.7	25.7	27.5	26.6	26.2
Ave Reasoning	27.2	24.8	25.6	25.6	27.5	27.8	26.3	25.4	27.7	27.0	26.5

Table 1-3 shows the average class ranking of SDSM&T students in the federal cohort by discipline. Percentages can be interpreted as percent of the graduating class as a whole. For example, first-time full-time freshmen entering Metallurgical Engineering (MET) in fall 2015 graduated in the top 28.6% of their high school graduating class on average. Table 1-4 shows the average high school GPA of incoming students in the federal cohort of first-time, full-time freshmen. Tables 1-5 and 1-6 show the average and minimum ACT scores by discipline.

Table 1-3 Average class ranking by top percentage of students in the federal cohort

Fall Sem	CHE	EE	CENG	CSC	CEE	IE	ME	MET	MINE	GEOE	Ave
2010	18.8	28.8	27.9	26.2	30.2	20.6	29.1	31.6	32.0	23.6	26.9
2011	25.8	29.1	31.1	32.0	27.2	36.8	28.7	39.3	33.4	24.9	30.8
2012	24.0	28.8	17.6	29.1	21.1	25.2	26.6	18.7	29.9	27.7	24.9
2013	18.5	29.1	30.8	30.7	23.8	25.6	30.1	24.6	34.0	34.1	28.1
2014	28.1	31.6	37.7	31.9	24.5	36.2	27.3	29.3	30.5	37.6	31.5
2015	24.1	26.3	32.1	30.1	26.0	19.2	27.6	28.6	33.0	28.6	27.6
Ave	23.2	28.9	29.5	30.0	25.5	27.3	28.2	28.7	32.1	29.4	28.3

Table 1-4 Average high school GPA of incoming students in the federal cohort of fall, first-time, full-time freshmen

Yr	CEE	CENG	CHE	CSC	EE	GEOE	IEEM	ME	MET	MINE	Ave
2010	3.38	3.46	3.70	3.50	3.56	3.53	3.52	3.46	3.48	3.40	3.50
2011	3.52	3.43	3.61	3.47	3.43	3.62	3.20	3.52	3.55	3.43	3.48
2012	3.56	3.58	3.59	3.43	3.42	3.57	3.66	3.57	3.59	3.42	3.54
2013	3.59	3.35	3.66	3.38	3.46	3.44	3.64	3.50	3.56	3.30	3.49
2014	3.60	3.45	3.54	3.48	3.51	3.30	3.36	3.54	3.53	3.43	3.47
2015	3.53	3.55	3.55	3.48	3.53	3.48	3.58	3.56	3.60	3.45	3.53
Ave	3.53	3.47	3.61	3.46	3.49	3.49	3.49	3.52	3.55	3.40	3.50

Table 1-5 Average ACT Math Scores of incoming fall students by discipline

Yr	CEE	CENG	CHE	CSC	EE	GEOE	IEEM	ME	MET	MINE	Ave
2010	26.3	26.9	28.3	27.5	26.8	25.6	25.2	27.4	26.3	24.3	26.5
2011	26.4	27.5	28.6	27.0	27.3	25.8	25.0	27.0	27.1	26.1	26.8
2012	26.1	27.9	27.6	27.4	26.2	26.3	26.7	27.7	27.3	25.8	26.9
2013	25.9	27.4	27.5	26.5	27.2	25.1	26.2	27.1	29.0	25.9	26.8
2014	26.7	25.5	27.3	28.3	27.7	24.8	27.2	26.8	27.3	26.9	26.9
2015	26.1	27.9	27.8	28.4	28.9	25.2	25.4	26.7	27.4	27.1	27.1
Ave	26.2	27.2	27.8	27.5	27.3	25.5	26.0	27.1	27.4	26.0	26.8

Table 1-6 Minimum ACT Math Scores of incoming fall students by discipline

Yr	CEE	CENG	CHE	CSC	EE	GEOE	IEEM	ME	MET	MINE	Ave
2010	21	23	22	20	20	21	22	18	21	18	18
2011	19	20	21	18	22	17	21	19	22	20	17
2012	21	22	19	20	17	18	22	17	23	18	17
2013	16	23	19	16	21	21	19	19	17	18	16
2014	18	16	20	20	19	19	23	18	21	22	16
2015	17	21	22	22	20	21	18	19	20	21	17
Min	16	16	19	16	17	17	18	17	17	18	16

B. Evaluating student performance

Student performance in each course is monitored by the course instructor in lecture courses through homework assignments, hour exams, and classroom participation; in laboratory courses through laboratory reports and participation; and in design courses through periodic oral reports presented to the entire design course and supervising faculty, periodic written reports that are reviewed by the instructor and returned for incorporation of improvements, and faculty interaction with the team. Students typically receive all graded work within one week of submitting it. Course exam statistics (high, low, average) are routinely reported to each class when the exams are returned along with the instructor's assessment of the students' aggregate performance. Students are invited to receive an individual performance assessment anytime during the semester. Some faculty opt to use D2L[®] instructional and course management system with Respondus[®] lockdown browser while other faculty use locally written automated grade reporting software and web sites. The university maintains an optional mid-term grading system for reporting deficient student performance. The Starfish reporting system is used to inform fellow faculty and warn the involved students of failing performance or laud them for exceptional performance. Final grades are reported to the students with 72 hours after the end of final exams via Web Adviser online system.

The SD State System general education requirements prompt the registration officer to carefully track each student's academic progression and to place a registration hold on any student who advances too far into his or her major program of study before completing their General Education requirements. These requirements must be met before the junior year, with an exception made for the SDSM&T in the case of ENGL 289, Technical Communication II, and for three credit hours of humanities or social sciences. ENGL 289 must be taken no later than the first semester of the junior year, and the fourth general education humanities or social science course may be taken during the junior or senior year.

After the completion of 48 credit hours at or above the 100 level, each student may be required to take the Collegiate Assessment of Academic Proficiency (CAAP) exam. The CAAP exam evaluates students' writing, math, reading, critical thinking and science reasoning skills. The CAAP is currently the South Dakota Board of Regents system measure for assessing the attainment of student learning in the General Education curriculum. Students must take the CAAP exam during the first semester in which they become eligible. Because satisfactory performance is required for subsequent registration and the baccalaureate degree, low exam scores provide another indicator that an intervention or targeted advising is needed. Achievement of minimum performance standards on the CAAP exam is required for graduation; however, a waiver of the requirement to take the test is granted to students who enroll having already earned an Associate's or Bachelor's degree or who have a composited ACT score of 24 or higher (provided each subscore meets or exceeds the following minimums: reading, 22; English, 18; math, 22; and science reasoning, 23).

Starting in 2014, the system undertook a review of General Education resulting in an anticipated adoption of another process for General Education outcomes assessment as early as fall 2016.

The Web Advisor system at SDSM&T allows both students and advisors to perform quickly a program evaluation that compares completed or in-progress work with the designated program requirements. Either the student or their advisor can run such a program evaluation from Web

Advisor at any time. At minimum, a program evaluation is conducted by the department head or senior advisor during the first semester of the student's senior year (the semester before graduation) and during the student's final semester.

In the semester a student plans to graduate, the major advisor completes a Degree Check for the office of the Registrar and Academic Services (RAS). A Degree Check involves retrieving the student's record from Web Advisor and performing an inventory of the student's academic record in conjunction with both general education and program requirements.

The advisor annotates the Degree Check sheet whenever a substitute course has been allowed for one of the required or recommended courses in the program. Courses entitled "Independent Study" or "Special Topics" will be noted and come under scrutiny because of the SD State System requirements for minimum course enrollment. Before a student's application for graduation will be processed by RAS, the advisor must sign and send to the registration officer a confirmation that a degree check has been performed and the student has met all requirements.

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C. Transfer students and transfer courses

Transfer students are those students who enter SDSM&T with previously-earned, post-secondary credits. Interactive online checklists are created each semester to guide students through all enrollment processes once they are accepted. Student access the checklists at <http://www.sdsmt.edu/Admissions/Accepted-Students/New-Student-Interactive-Checklist/>.

Upon admission, the registration officer in collaboration with the Associate Provost determines which transfer-student credits meet the general education requirements, upper-division humanities or social sciences requirements (if applicable), and physical education requirements. The registration officer sends a transcript showing the results of this credit-transfer analysis to the student's advisor for review and inclusion in the student's file.

Transfer-credit decisions for courses in the student's major are made by the academic department. All academic programs have a designated transfer advisor, and the registration officer assigns this person to an incoming transfer student as his or her initial advisor. The department head (Dr. West) serves as the designated advisor in the BS Metallurgical Engineering program. The universities in the SD State System share a common course numbering system and common course descriptions for many courses and these commonalities greatly facilitate the transfer of credit.

Transfer credits from other post-secondary schools (both domestic and foreign) are reviewed on a case-by-case and course-by-course basis. For mathematics, chemistry, physics, some of the sciences, general engineering, and some science courses the typical course of action is for the course catalog description and syllabus to be examined to determine sufficient similarity to a required course. All transfer credit appearing on the Degree Check Sheet, which is completed as part of the graduation application process, is fully documented on the Colleague Database

System maintained by RAS. The Degree Check Sheet and all associated documentation is forwarded to the Degrees Committee for final review before graduation is approved.

Table 1-7 shows the number of transfers into SDSM&T overall and into the BS Metallurgical Engineering program over the last 6 years.

Table 1-7 Transfer students

Fall Term	Number Enrolled	
	SDSM&T	BS MET. ENG.
2010	61	2
2011	55	3
2012	70	2
2013	100	5
2014	90	3
2015	90	7
Total	466	22

For a student transferring into the Metallurgical Engineering program from another SDSM&T program, the department head reviews the student’s transcript as recorded online in the Datatel/Colleague System and compares it to the program’s Graduation Progress Checklist shown in Table 1-8. The department head then schedules a meeting with the student to outline a semester-by-semester plan for the student to complete their degree. The student’s Graduation Progress Checklist file maintained by the department head, with copies to the student, is updated routinely and ultimately used for the Degree Audit during the semester before graduation. Only courses offered at SDSM&T are listed in the second half of Table 1.8, but the six-university state system publishes a much longer list showing all courses offered in the system that would satisfy General Education Goals #3 and 4.

D. Advising students and career guidance

The process by which students are advised on curricular and career matters follows.

Academic Advising and Academic Support for key student groups

Campus-wide structures and processes for delivering targeted advising and academic support to students are described below.

- **Advisors** The office of the Registrar and Academic Services (RAS) assigns each freshman an advisor from his or her discipline or a closely related discipline. These freshman advisors are faculty members identified by the each academic program for their mentoring skills.
- **Advanced Placement** All universities in the SD state system consider College Entrance Examination Board Advanced Placement scores of 3, 4, or 5 for course credit. Similarly, the system recognizes the rigor of the International Baccalaureate (IB) courses and the IB Diploma Program and considers higher-level courses for which students earned a five (5) or better on the final exam for credit. Details on system policies regarding AP and IB credits may be found at <https://www.sdbor.edu/policy/documents/2-5.pdf>

Table 1-8 BS Metallurgical Engineering 130 Credit Hour Curriculum Check Sheet

Student Name		Expected Graduation Date	
ID#		Date/Initials of Last Review	
MET	50	Science	8
	MET 220, S	3	CHEM 112
	MET 220L - S	1	CHEM 112L
	MET 232 - S & F	3	CHEM 114
	MET 231 - S & F	1	CHEM 114L
	MET 310 - Even S	3	Dept-approved Science Electives
	MET 310L - Even S	1	
	MET 320 - F	4	
	MET 321/321L - Odd F	4	PHYS
	MET 330 - Odd F	3	PHYS 211/211A
	MET 330L - Odd F	1	PHYS 213/213A
	MET 332 - Odd F	3	MATH
	MET 351 - F	2	MATH 123
	MET 352 - S	1	MATH 125
	MET 422 - Even F	4	MATH 225
	MET 433 - S	3	MATH 321
	MET 440 - Even S	3	MATH 373
	MET 440L - Even S	1	ENG
	MET Directed Elective	3	ENG 101
	MET 464 - F	2	ENG 279
	MET 465 - S	1	ENG 289
	MET Directed Elective	3	HUM
Others	13		
	EM 214	3	
	EM 321 or ME 216	3	SS
	IENG 301	2	
	EE 301/301L	4	
	PE	1	Upper-level HUM-SS
Free Electives	5		
			<i>GEN ED GOAL #3</i>
			<i>GEN ED GOAL #4</i>

Table 1-8 BS Metallurgical Engineering 130 Credit Hour Curriculum Check Sheet (cont'd)

Goal #3 - 6 Credits Select 1 in each column but they must be in different groups

		ANTH 210	Cultural Anthropology	3
		GEOG 101	Intro to Geography	3
		GEOG 210	World Regional Geog	3
		GEOG 212	Geog of North America	3
		HIST 151	US History I	3
		HIST 152	US History II	3
		POLS 100	American Government	3
		POLS 165	Political Ideologies	3
		POLS 250	World Politics	3
		PSYC 101	General Psychology	3
		SOC 100	Intro to Sociology	3
		SOC 150	Social Problems	3
		SOC 250	Courtship & Marriage	3

Goal #4 - 6 Credits Select 1 in each column but they must be in different groups

		ART 111	Drawing I	3
		ART 112	Drawing II	3
		ARTH 211	History of World Art I	3
		ENGL 210	Intro to Literature	3
		ENGL 212	World Literature II	3
		ENGL 221	British Literature I	3
		ENGL 222	British Literature II	3
		ENGL 241	American Literature I	3
		ENGL 242	American Literature II	3
		ENGL 250	Science Fiction	3
		HIST 121	Western Civilization I	3
		HIST 122	Western Civilization II	3
		HUM 100	Intro to Humanities	3
		HUM 200	Connections	3
		MUS 100	Music Appreciation	3
		MUS 117	Music in Performance 1	3
		PHIL 100	Intro to Philosophy	3
		PHIL 200	Intro to Logic	3
		PHIL 220	Intro to Ethics	3
		PHIL 233	Philosophy and Literatu	3
		CHIN 101	Intro Chinese I	4
		CHIN 102	Intro Chinese II	4
		GER 101	Intro German I	4
		GER 102	Intro German II	4
		SPAN 101	Intro to Spanish I	4
		SPAN 102	Intro to Spanish II	4

- **Traditional students** are newly graduated from high school younger than 21 enrolling in college for the first time. These students complete a Course Registration Survey that solicits the information needed for the Office of the Registrar and Academic Services to create their first year course schedules. While alterations to a student's schedule can be made readily in response to advisor input, providing a schedule for incoming students has proven to be the best way to inducted first-time, full-time students.
- **Transfer students** enter the School of Mines with previously earned post-secondary credits. Section C entitled *Transfer Students and Transfer Courses* describes in detailed how these students are advised.
- **Non-traditional students** are 21 or older, have previous post-secondary experiences and/or professional and life experiences that qualify as credit towards a degree. For such students, credit by verification processes is offered via the College Board's College Level Examination Program (CLEP). Credit by examination can be arranged on a case-by-case basis; however, credits earned through validation methods other than nationally recognized examinations. University-administered tests and verification such as military credit or prior learning are disallowed. Total credit by examination methods cannot exceed 32 credits for baccalaureate a degree. Additional details are available: <https://www.sdbor.edu/policy/documents/2-5.pdf>.
- **Native American** students enjoy the advocacy and support of the Office of Multicultural Affairs (OMA) and the American Indian Science and Engineering Society (AISES) student group. While OMA responds to the needs of all under-represented students, including African Americans, Latino/a students, and Asian Americans, concerted efforts are made to offer native Americans a structured support network that includes academic support services, peer mentoring, workshops focused on career and personal development, and promotion of cultural competence through access to community diversity education seminars. SDSM&T runs targeted outreach to Native American high school students and has a thriving NSF-funded Tiospaye in Engineering academic support and scholarship program designed to improve the recruitment and retention of Native American students. Additional information is available at <http://multicultural.sdsmt.edu> and <http://tiospaye.sdsmt.edu>.
- **Women** students make up roughly 30 percent of the overall student population and have been supported since 2005 by the Women in Science and Engineering (WISE) program. Between 2005 and 2010, a dedicated director position existed for the coordination of WISE programming, including a mentor and mentees (M&M) program that paired junior and senior women with freshmen and sophomore students. Since 2005 WISE has offered extensive outreach to middle- and high-school girls through the annual *Girls Day* event bringing more than 200 girls to campus for a day-long engineering and science experience. Administrative oversight of the WISE program is in transition and housed within Admissions as of the spring 2016 semester.

- **Veterans** are a growing sub-group of students with distinct needs. To supplement the support given to veterans by the Veteran's Information Registration Officer in RAS, a Veteran's Resource Center was created in 2009: <http://vrc.sdsmt.edu/>. This is a dedicated space in the student center designed to support the social and academic needs of veterans by offering tutoring in math and writing; counseling and referral services regarding VA benefits, G.I. Bills, and community veterans organizations; college success workshops; assistance with resume and cover letter writing; and help with scholarship searches and applications. The VRC is sponsored jointly by the School of Mines and Western Nebraska Community College TRIO Veterans Upward Bound, a program funded by the Department of Education. Veterans and deployed and returning students are strongly supported by faculty and staff members in the Department of Military Science and by the Office of Student Affairs. Veterans are honored at graduation by the wearing of uniforms, presentation of the colors, and commissioning ceremonies. Throughout the year there are numerous veteran and active duty appreciation events.
- **International students** are supported throughout their time on campus by the Ivanhoe International Center <http://www.hpcnet.org/international>. A special online checklist is maintained to guide international students through the enrollment process <http://www.gotomines.com/admissions/accepted/international>. The Ivanhoe Center staff assist with matters ranging from visa requirements to housing. There is an annual International Exposition held on campus and a Diwali celebration.
- **At risk students** are identified via multiple indicators such as academic probation, multiple academic appeals, and/or referral to the Early Alert Team by staff and instructors. At risk students are contacted by the Director of Retention and referred to support services, including University Counseling and ADA services, the Tech Learning Center for tutoring, supplemental instruction sessions, and the Career Center for consultation on career interests and aptitudes.

Students whose cumulative grade point average falls below a 2.0 are placed on academic probation and advised not to enroll in more than twelve (12) credits. While on academic probation, a term grade-point average of 2.0 or better must be maintained in to avoid academic suspension. Suspension means a student cannot enroll for two semesters or seek early readmission through the academic appeal process. The Academic Appeals Committee is charged with reviewing appeals from students and tailoring programs to succeed for each student.

The SD state system policy allows a student to register for a course only three times. Any additional enrollment must be permitted by the Academic Appeals Committee. Each such appeal is considered by the Appeals Committee with foremost consideration towards student success. Each student receiving permission is required to follow a prescriptive plan most often consisting of reduced course load. In some cases, students are referred to counselling to address emotional difficulties, possible alternative career choice options, or other appropriate action.

In addition to the above advising and academic resources and support to targeted groups, the offices and programs listed and described below support students in general and specific sub-groups with distinct needs or interests.

- **Athletics** A *cap and gown* program is used in athletics such that all students with athletic scholarships must attend a proctored study hall session three times weekly. Students who maintain a minimum GPA of 3.0 can reduce or eliminate the number of study-hall sessions required. Personnel monitor all student athlete class attendance and student academic progress in terms of the numbers of credits completed per semester, overall GPA, etcetera. The net result of the close attention paid to athletes is that the average GPA of student athletes is higher than the average GPA of non-athletes at Mines.
- **Campus Ministries** A variety of groups (United Campus Ministry, Lutheran Campus Ministry, the Newman Center, the Intervarsity Christian Fellowship, International Students Incorporated, and the Muslim Student Association) provide a variety of services geared toward meeting the spiritual and material needs of students.
- **Student Activities and Leadership Center** This office seeks to enhance student engagement through enjoyable yet educational activities that promote leadership development and well-rounded students. Activities include new student orientation, the advising of student organizations, student co-curricular events and activities, and Greek life.
- **Career and Professional Development** The Career and Professional Development Center provides an array of services to help students be prepared for success in their careers after graduation. Services include career fairs, on-campus interviews, internship/co-op experiences, professional development workshops, resume and cover letter reviews, career advising, and mock interviews, as well as coordination of the Mines Advantage program that is focused on developing student competencies in communication, leadership, teamwork, career preparation, cultural and global diversity, community involvement, and personal development.
- **Counseling Services** The Counseling Department provides support to students who suffer from mental illness, emotional disruption, academic stress, substance addiction, and other difficulties. Counseling staff work with students to provide coping skills that assist students in bettering their lives and their ability to handle problems as well as referrals.
- **Disability Services/ADA** The ADA office provides students with disabilities the appropriate support in accordance to the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. After providing our office with documentation of their disability, this office provides accommodations for the student for the areas that disability has affected them.

- **Ivanhoe International Center** The Ivanhoe International Center is the hub of international activities on campus, including services for international students and for students who are planning study abroad. The center provides traditional international student advising, coordinates many activities and opportunities for cultural interaction and adjustment, and initiates student success/retention plan. The Ivanhoe International Center also provides support for students who plan to study abroad, and works with departments and programs to develop innovative ways of incorporating international experiences into the curriculum.
- **Multicultural Affairs** The Office of Multicultural Affairs (OMA) is committed to building and promoting programs, services, and resources that serve to create and sustain a diverse as well as an inclusive community. The OMA provides future and current students with information on scholarships, housing, co-ops, internships, and employment placement; sponsorship of social and cultural enrichment events and activities; and support for the School of Mines student chapters of the American Indian Science and Engineering Society (AISES), the National Society of Black Engineers (NSBE), and the Society of Hispanic Professional Engineers (SHPE).
- **The Omniciye Bridge Program and Jump Start Program** The Omniciye Bridge Program is a pre-orientation curriculum for incoming American Indian students. The Jump Start Program is a state wide grant which follows American Indian and low-income students through their first three years of college. This program has a summer component where a student can earn course credit for the upcoming semester and locates internships or research experiences to help them be more engaged in their field of study
- **Tiospaye in Engineering and Tiospaye in Science Programs** These are NSF-funded scholarship and academic support programs that provide financial, academic, professional, cultural and social support for undergraduate science and engineering students. The students are provided weekly mentoring sessions, monthly mentoring with the director, weekly recitations in key classes, and biweekly lunches featuring programming for support in the five areas.
- **Women in Science and Engineering (WiSE)** The WiSE program is designed to educate, recruit, retain, and graduate academically motivated women in STEM fields and to works to connect women students with peer mentors and added resources within the campus communities. The program includes an informal social network through social media sites, professional development opportunities for mentors and mentees, and networking opportunities to form meaningful connections with other women students, women alumni, and valuable industry contacts.
- **Culture and Attitude Program** This is an NSF-funded program that began in 2009 designed to increase the number of women graduates in Metallurgical Engineering (MET) and Industrial Engineering & Engineering Management (IE). The program recently expanded to include the Mechanical Engineering (ME) department. Key program components are need-based scholarships, mentoring, professional development and program support for low-income women.

- **Dean of Students Office** Personnel in the Dean of Students office offers student advocacy by assisting with grievances or concerns or managing crises. This office advises the institution on student affairs matters and related policy in addition to advising and guiding students in professional and volunteer activities.
- **Office of Residence Life** Personnel in Residence Life oversee all aspects of providing a responsible community living and learning environment in the campus residence halls. Trained Residence Hall Assistants provide mentoring and crisis management.
- **Peer Mentoring Program** This programming is run by Enrollment Management in Academic Affairs. Upper-class students that serve as Peer Mentors are selected with the recommendation of their departments to assist first-year students with advising and registration activities, including planning class schedules, interpreting university procedures and policies, and making referrals to other university services. Peer mentors do not take the place of faculty academic advisors, but they do assist them in fulfilling their roles as academic advisors.
- Within the BS Metallurgical Engineering program, women students are encouraged to participate in the Women in Metallurgical Engineering (WIME) and the NSF-funded Culture and Attitude Scholarship Program. Additionally, the Materials Advantage student chapter promotes women serving in leadership roles.

The offices and programs listed above have distinct methods for reaching out to students and connecting them with services. For example, the Veterans' Resource Center is centrally located in the student center and is decorated and furnished to ensure that veteran students feel welcomed and respected for their service contributions. The Center director maintains a database of contact information for the approximately 150 student veterans and assiduously reaches out to them via multiple media to let them know about events, services, scholarships, employment opportunities, etcetera. The posting of flyers and other traditional methods are also used to keep veterans informed of services. A separate new-student orientation curriculum is offered for veterans to ensure that students are informed about veteran-specific resources and services.

The Starfish system is an online early-alert system implemented in fall 2012 that interfaces with Colleague, the SDBOR student information system; D2L, the SDBOR learning management software; and Pearson MyMathLab. All course instructors have the ability to send out a Starfish Alert to a student's academic advisor, or other groups the student may be associated with. Advisors receive these alerts and can contact the students to provide assistance regarding who to see or where to go to receive the required help. Starfish utilization on the SDSM&T campus was concentrated on foundational gateway courses in math, chemistry, physics, and English. The SDBOR mandated use of the software, but did not fund resources needed for full implementation. Over time, the Retention Planning Group at SDSM&T has studied the impact of Starfish notifications and have found them minimally effective and often counter-productive. Starfish remains in effect as a retention tool through March 2017, but the campus anticipates the contract will not be renewed. Resources and attention is being shifted at SDSM&T to building the capacity and functionality of the Student Success Center and focusing on networking support services and reinforcing one-on-one relationships with students.

Since 2012, the University has sought to garner funding needed to consolidate services in a one-stop Student Success Center to be centrally located in the Surbeck Center adjacent to other critical support services (e.g., the Career and Professional Development Center, Tiospaye, and the Ivanhoe International Center, the VRC-Veterans Resource Center, Multicultural Affairs, mental health counselors and ADA testing services). Creation of the Student Success Center is Action Step 1-B-1 under Strategy B-1 of the Strategic Plan. Services to be consolidated in the Student Success Center will include tutoring, advising and mentoring, testing. As the University works to marshal sufficient internal and external funding to build an addition to the student center and to appropriately staff enhanced support programs and services, Academic Affairs in collaboration with Student Development is moving ahead to create the functions of a Center. Hiring of a director and two advising staff members is anticipated over summer 2016. By the time of the site visit, the Success Center operations will be fleshed out, functioning, and can be described in much greater detail.

Coordination of student support services—academic and non-academic—is achieved through two structures: the monthly meetings of all directors and key support staff in Student Development and the bi-weekly meetings of the Retention Planning Group (RPG). The RPG ensures close collaboration between Academic Affairs and Student Development for issues of support and retention.

One additional, significant initiative to support student success targets foundational math courses. Since SDSM&T is a STEM-only institution, students who cannot or elect not to complete advanced coursework in mathematics must transfer to find a suitable program of study elsewhere. Progress to graduation is impeded by the rigor of our mathematics requirements and the struggles a significant percentage of our students exhibit in mathematics—despite the fact that the average incoming ACT score in math has been 26.8 over the past seven years.

As a consequence, in spring 2015, SDSM&T piloted a program to

- Develop more predictive placement testing processes
- Create preparatory materials to positively impact a student's success in their initial math class at SDSM&T
- Study the role of affective skill development in math success to a level of specificity that allows the creation of skill-specific interventions

Analysis of the impact to date has shown improvement in the pass rates in advanced math classes even though the 2015 freshman class came in less well prepared in math (based on ACT scores) than previous freshmen classes. While SDSM&T cannot claim causality without more data, we are pushing ahead. The South Dakota legislature made a targeted allocation of \$250,000 to SDSM&T to fund a continuation and very significant expansion of this initiative. Additionally, the math faculty is awaiting a funding decision on a National Science Foundation grant proposal that will support research on the relationship of affective skills to success in mathematics.

BS metallurgical engineering program students

In addition to the Curriculum Checklist in Table 1-8, the BS Metallurgical Engineering program employs a Curriculum Flow Diagram (CFD) shown in Figure 1-2 by which faculty can assist students visualize progress towards a degree. Both the checklist and CFD are reviewed and progress updated annually by the student in conjunction with their advisor. Students are strongly

encouraged to visit advisors at the beginning of every semester to complete this review. Additionally, students have 24/7 access to Web Advisor, which is online software that provides registration, prerequisite, curriculum, catalog, grade, and course information.

Each academic program has an individualized process for transitioning new students from their freshmen or transfer advisors to the advisor in the major who will remain the student's advisor throughout their undergraduate study. For the Metallurgical Engineering program, all faculty members are assigned undergraduate students for advising. Drs. West and Cross are the primary freshman advisors. Those advisees that are majoring in Metallurgical Engineering stay with these advisors through their sophomore year. Following their sophomore year, Metallurgical Engineering student advising is distributed among between the remaining BS Metallurgical Engineering program faculty members. Dr. West is responsible for the final degree audit prior to graduation.

The BS Metallurgical Engineering program maintains strong scholarship support for its students. For the most recent academic year, 75 students were awarded approximately \$90,000 from the department with approximately 60% of all students receiving support. During the review period, students in the program were awarded numerous competitive national scholarships from professional societies including TMS, ASM, SME, and AIST as well as other private and public foundations.

In addition to the curriculum list sheet and curriculum flow chart, students are provided a list of approved science electives shown in Table 1-9. Students are encouraged to review their progress by comparing their coursework completion with the curriculum given in the catalog (<http://resources.sdsmt.edu/catalog/current-catalog.pdf>).

New students receive emails from faculty advisors so as to establish contact and to begin to develop a secure mentoring relationship. All advisees of Metallurgical Engineering program faculty are invited to program extracurricular activities, including the weekly Hammer-In blacksmithing activities, Materials Advantage student chapter activities including periodic meetings, and other social events where they can meet their program faculty members. In addition, women advisees are invited to participate in the Women in Metallurgical Engineering (WIME) and the Culture and Attitude Scholarship Program activities. All these activities have active program faculty participation often resulting in informal discussions concerning student academic progress, general happiness and other important areas implicit in advising and mentoring college students.

Career Advising All students have easy access to the services of the Career Center located in the student center. The center actively promotes services that range from interest and aptitude inventories, career counseling; assistance with participating in the Students Emerging as Professionals (STEPS) program for professional development; resume and interview preparation; linking students with coop, internship, and employment opportunities; and seminars on the development of professional behavior. More detail can be found at <http://careers.sdsmt.edu>.

Metallurgical Engineering Curriculum Flowchart 2015-16 (130 credits)

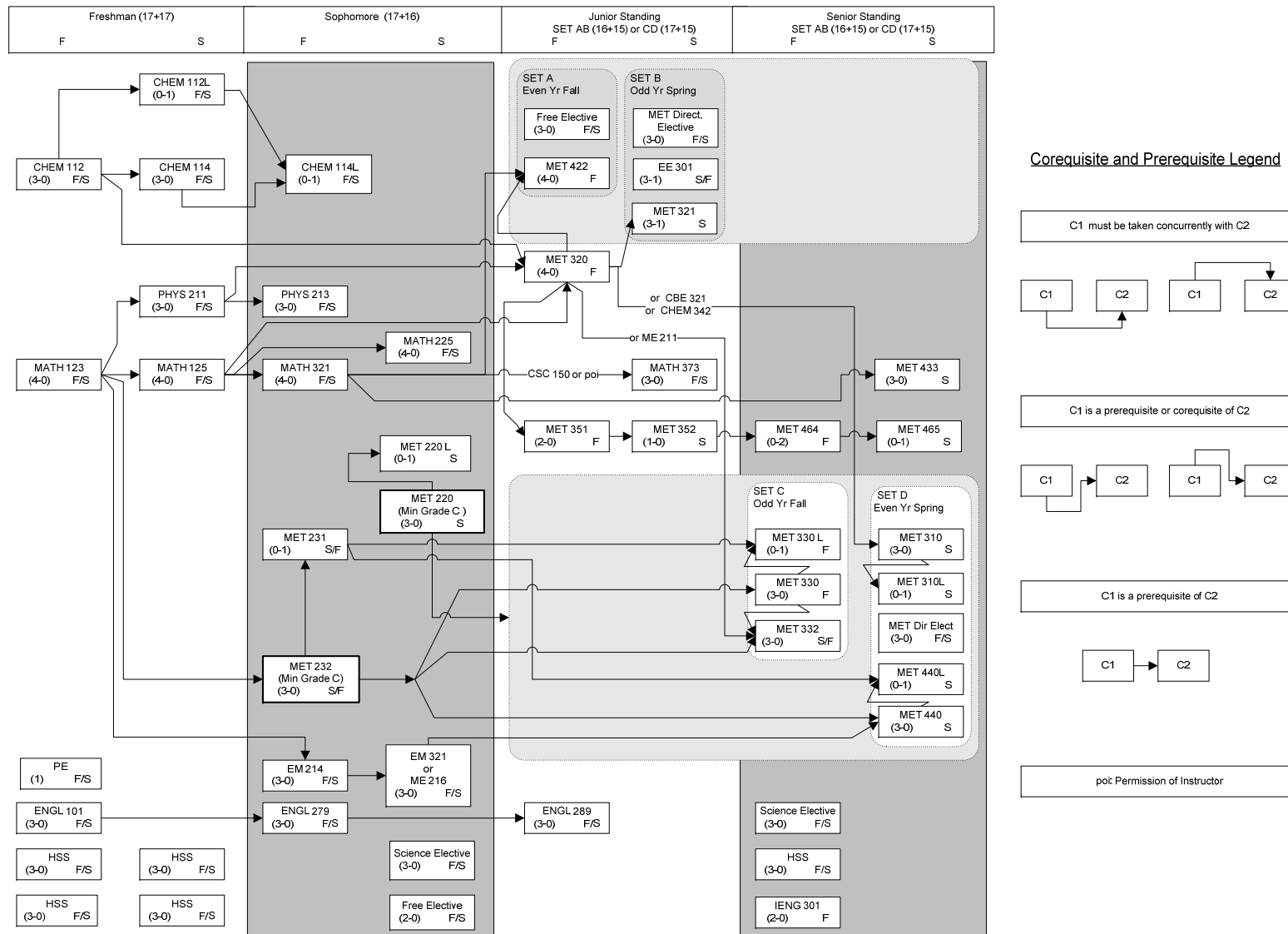


Figure 1-2 BS Metallurgical Engineering Curriculum Flow Diagram 2015-16

Table 1-9 BS Metallurgical Engineering approved science electives

(Prerequisites, if any, appear indented and beneath. All courses are 3 credits unless noted otherwise.)

AES 201 INTRODUCTION TO ATMOSPHERIC SCIENCES
AES 401/501 ATMOSPHERIC PHYSICS PHYS 213/213-A, MATH 321, and AES 404/504
AES 403/503 BIOGEOCHEMISTRY CHEM 106 or CHEM 112 ; BIOL 151 ; PHYS 111 or PHYS 211/211-A
AES 404/504 ATMOSPHERIC THERMODYNAMICS (2 or 3 credits) PHYS 211/211-A and MATH 225
AES 405/505 AIR QUALITY MATH 125, and CHEM 106 or CHEM 112
AES 406 GLOBAL ENVIRONMENTAL CHANGE CHEM 112, PHYS 111 or PHYS 113 or PHYS 211/211-A or PHYS 213/213-A and BIOL 311
AES 430/530 RADAR METEOROLOGY MATH 125 and PHYS 213/213-A
AES 450 SYNOPTIC METEOROLOGY I AES 201 and AES 404/504
AES 460/560 ATMOSPHERIC DYNAMICS MATH 321 and PHYS 211/211-A
BIOL 121 BASIC ANATOMY
BIOL 123 BASIC PHYSIOLOGY
BIOL 151 GENERAL BIOLOGY I
BIOL 153 GENERAL BIOLOGY II BIOL 151
BIOL 221 HUMAN ANATOMY
BIOL 311 PRINCIPLES OF ECOLOGY
BIOL 326 BIOMEDICAL PHYSIOLOGY Four hours of CHEM, BIOL 153 or BIOL 221
BIOL 331 MICROBIOLOGY
BIOL 341 MICROBIAL PROCESSES IN ENGINEERING AND NATURAL SCIENCES CHEM 112
BIOL 371 GENETICS BIOL 151
BIOL 375 CURRENT BIOETHICAL ISSUES
BIOL 383 BIOETHICS
BIOL 403 GLOBAL ENVIRONMENTAL CHANGE CHEM 112, PHYS 111 or PHYS 113 or PHYS 211/211-A or PHYS 213/213-A and BIOL 311
BIOL 423 PATHOGENESIS BIOL 331
BIOL 431 INDUSTRIAL MICROBIOLOGY BIOL 331

BIOL 444 DNA STRUCTURE AND FUNCTION

BIOL 151 and CHEM 326

BIOL 446/546 MOLECULAR CELL BIOLOGY

BIOL 151 and BIOL 371 or permission of instructor

BIOL 478/578 MICROBIAL GENETICS

BIOL 331 and BIOL 371

BIOL 480/580 BIOINFORMATICS

BIOL 331, BIOL 341, or BIOL 371 or permission of instructor

CHEM 316 FUNDAMENTALS OF ORGANIC CHEMISTRY

CHEM 114

CHEM 326 ORGANIC CHEMISTRY I

CHEM 114

CHEM 328 ORGANIC CHEMISTRY II

CHEM 326

CHEM 332 ANALYTICAL CHEMISTRY

CHEM 114

CHEM 342 PHYSICAL CHEMISTRY I

CHEM 114 and PHYS 213/213-A and MATH 225 or MATH 321

CHEM 344 PHYSICAL CHEMISTRY II

CHEM 342 and PHYS 213/213-A

CHEM 352 SYSTEMATIC INORGANIC CHEMISTRY

CHEM 114

CHEM 420/520 ORGANIC CHEMISTRY III

CHEM 328

CHEM 421/521 SPECTROSCOPIC ANALYSIS

CHEM 328

CHEM 426/526 POLYMER CHEMISTRY

CHEM 328 and CHEM 342

CHEM 434 INSTRUMENTAL ANALYSIS

CHEM 230 or CHEM 332 and CHEM 342

CHEM 452/552 INORGANIC CHEMISTRY

CHEM 352, CHEM 328 and CHEM 342

CHEM 464/564 BIOCHEMISTRY I

CHEM 465/565 BIOCHEMISTRY II

CHEM 464/564

CHEM 482/582 ENVIRONMENTAL CHEMISTRY

CHEM 316 or CHEM 328

GEOL 201 PHYSICAL GEOLOGY

GEOL 212/212L MINERALOGY AND CRYSTALLOGRAPHY

GEOL 322/322L STRUCTURAL GEOLOGY/LAB

GEOL 331/331L and GEOL 341/341L or MEM 314/314L

GEOL 323 SEARCH FOR OUR PAST

GEOL 201 or GEOE 221/221L

GEOL 331/331L STRATIGRAPHY AND SEDIMENTATION

GEOL 201 /GEOL 201L or GEOE 221/221L

GEOL 341/341L IGNEOUS AND METAMORPHIC PETROLOGY/LAB

CHEM 112 /CHEM 112L, GEOL 201L or GEOE 221/221L and GEOL 212/212L or MEM 314/314

GEOL 351 EARTH RESOURCES AND THE ENVIRONMENT

GEOL 201 or GEOE 221/221L

GEOL 361 OCEANOGRAPHY I

GEOL 372 DINOSAURS

GEOL 420/520 INTRODUCTION TO REMOTE SENSING

Junior standing

GEOL 422/422L/522/522L TECTONICS AND SEDIMENTARY BASIN ANALYSIS/LAB

GEOL 322/322L and GEOL 331/331L

GEOL 442/442L/542/542L OPTICAL PETROLOGY/LAB

GEOL 341/341L or MEM 314/314L

GEOE 451/451L ECONOMIC GEOLOGY/LAB

Junior or senior standing. GEOL 322/322L

GEOL 652 PROBLEMS IN ORE DEPOSITS

GEOE 451/451L

NANO 401 INTRODUCTION TO NANOSCIENCE

PHYS 213/213-A, PHYS 213L , CHEM 114, MATH 321

NANO 445/545 INTRODUCTION TO NANOMATERIALS

MET 232, EM 321

PHYS 183 ELEMENTS OF MODERN ASTRONOMY

PHYS 275 RELATIVITY

PHYS 111 or PHYS 211/211-A and a working knowledge of elementary algebra and trigonometry.

PHYS 312 EXPERIMENTAL PHYSICS DESIGN I (2 cr.)

CENG 244/244L

PHYS 314 EXPERIMENTAL PHYSICS DESIGN II (2 cr.)

CENG 244/244L

PHYS 321 THE PHYSICS & IMPLICATIONS OF SPACE TRAVEL

PHYS 331 INTRODUCTION TO MODERN PHYSICS

PHYS 113 or PHYS 213/213-A

PHYS 341 THERMODYNAMICS

PHYS 213/213-A, and MATH 225

PHYS 343 STATISTICAL PHYSICS

PHYS 213/213-A, and MATH 225

PHYS 361 OPTICS

PHYS 113 or PHYS 213/213-A and MATH 225

PHYS 386/386L OBSERVATIONAL ASTRONOMY/LAB

PHYS 183

PHYS 404/504 NANOPHOTONICS

Introductory quantum mechanics and electricity and magnetism; ordinary differential equations and linear systems.

PHYS 421/521 ELECTROMAGNETISM (4 cr.) PHYS 213/213-A and MATH 321 PHYS 433/533 NUCLEAR AND ELEMENTARY PARTICLE PHYSICS PHYS 471 PHYS 439/539 SOLID STATE PHYSICS (3 or 4 cr.) MATH 225, MATH 321, PHYS 331 PHYS 445/545 STATISTICAL MECHANICS (4 cr.) PHYS 451/551 and MATH 321 PHYS 451/551 CLASSICAL MECHANICS (4 cr.) MATH 321 PHYS 471/571 QUANTUM MECHANICS (4 cr.) MATH 321 PHYS 481/581 MATHEMATICAL PHYSICS (4 cr.) Permission of instructor

The Career Center hosts two career fairs on campus per year, one each in the fall and the spring. In the fall of 2015, 148 employers attended the Career Fair. In spring of 2016 there were 92 companies present.

The percentage of students who graduate having completed an internships or coop experience during their tenure was 61 percent for 2015-16. The job placement rate and average starting salary for graduates from 2010-11 through 2014-15 are shown in Figure 1-1.

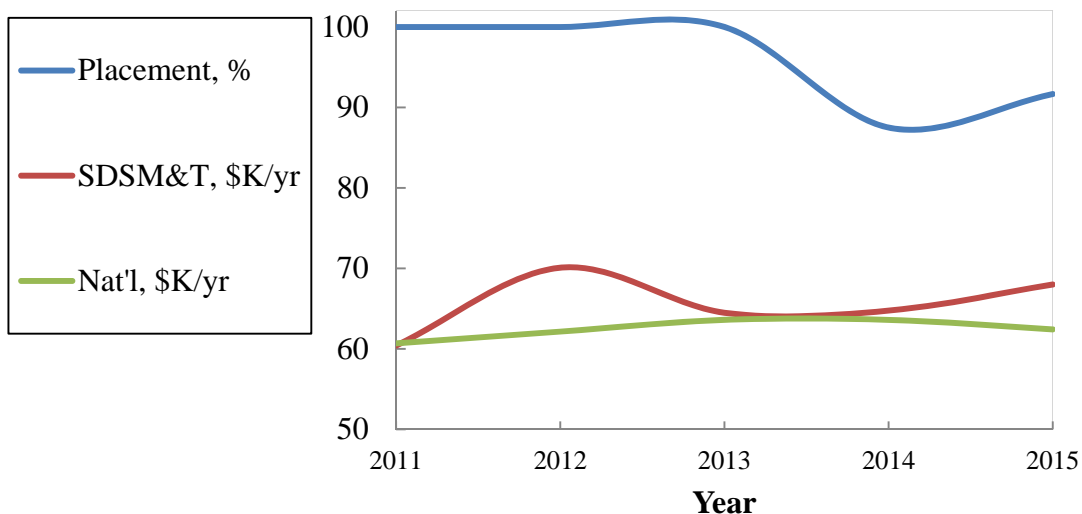


Figure 1-1 Placement and starting salaries in BS Metallurgical Engineering

In the BS Metallurgical Engineering program, a variety of career planning support is available to supplement the non-program specific efforts detailed previously. The program maintains contacts with as many program alumni as possible. These alumni often approach the department with their needs for summer interns and their companies open full-time positions. In addition, program faculty members with on-going research often hire program undergraduates as part of the team to accomplish their research. The Arbogast Advanced Materials Processing (AAMP) Laboratory, the NSF Back to the Future REU site, and the Center for Security Printing and Anti-Counterfeiting Technology (SPACT) which also hosts the NSF SPACT REU site are especially active in this regard. The program faculty members also work closely with the Materials Advantage student chapter to help bring in speakers from various metallurgical engineering related companies. Material Advantage also sponsors resumes advising sessions with program faculty help students compose professional resumes. During the summer of 2015, 18 students worked as summer interns in industry, while five were engaged in research projects.

The Registrar and Academic Services (RAS) office assigns each freshman a “freshmen advisor” from his or her discipline. Transfer students are assigned to the transfer advisor for the student’s major area of study. Freshmen and transfer advisors are faculty members identified by the academic programs for these designations because of their training, their mentoring skills, or both.

The quality of academic advising continues to be monitored at SDS&T through use of the Noel-Levitz instrument, the Student Satisfaction Survey (SSI). For over a decade, the SSI was administered to students immediately after they completed their sophomore year. While questions on the survey that contributed to benchmark scores on academic advising were targeted and useful, students taking the survey did not always have the experience with advising within the academic major needed to offer useful feedback.

Beginning in spring 2015, administration of the survey was moved to the senior year so that academic programs could gain useful and relevant feedback on advising, instructional effectiveness, concern for the individual, etcetera. In addition, an *academic advising week* was implemented in October 2015 and repeated in spring 2016. A Retention Task Force undertook a year-long project in September 2015 to improve academic advising in all programs. This project directly supports Strategic Plan Goal 1, Strategy B: *Strengthen advising, counseling, mentoring and engagement to improve retention at every stage*. The project encompassed the following goals:

- Understand the scope and extent of freshmen and sophomore needs for academic advising
- Understand freshmen and sophomore students’ perceptions_of academic advising pertaining to
 - What “academic advising means or encompasses”
 - Satisfaction levels with current academic advising experiences
- Understand senior students’ perceptions_of academic advising
- Identify opportunities to improve academic advising as currently delivered –or—design supplemental support processes to address the full range of student needs.

To improve the range of data available for monitoring advising quality, custom questions were added to another Noel-Levitz instrument, the Second Year Student Assessment (SYSA). Use of the SSI in the senior year and introduction of the SYSA have generated only one year of data to date; however, over time, the results will help programs ensure and improve advising quality.

The Student Satisfaction Inventory and responses for spring 2015 are shown in Tables 1-10 and 1-11. The SYSA is a Noel-Levitz survey given to all students listed in Colleague as sophomores. Approximately 535 students were surveyed and 180 responded. The *additional questions* feature was used to replicate selected questions (6, 14, 19, and 33) of the Student Satisfaction Inventory. The results above provided for gap analyses of these paired questions based on the mean scores of the responses.

E. Work in lieu of courses

All universities in the SD State System consider College Entrance Examination Board Advanced Placement scores of 3, 4, or 5 for course credit. Similarly, the System recognizes the rigor of the International Baccalaureate (IB) courses and the IB Diploma Program and considers higher-level courses for which students earned a five (5) or better on the final exam for credit. Details on System policies regarding credit received through validation methods can be found in BOR Policy 2:5 at <https://www.sdbor.edu/policy/documents/2-5.pdf>.

“Non-traditional” students are 21 years of age or older and may have previous post-secondary experiences that qualify as credit towards a degree. For such students, we offer the College Board’s College Level Examination Program (CLEP) and credit by verification processes. Credit by examination can be arranged on a case-by-case basis; however, credits earned through validation methods other than nationally recognized examinations (that is, university-administered tests and verification like military credit or prior learning) are not allowed. Credit by all examination methods cannot exceed 32 credits for baccalaureate degrees. The entire BOR Policy 2:5 policy is available to faculty at <https://www.sdbor.edu/policy/documents/2-5.pdf>.

The BS in Metallurgical Engineering program does not accept work in lieu of coursework except in the case of co-op positions, and then credit is earned through a structured course program. To obtain such academic credit, students who have accepted a co-op position must register for a Cooperative Education (CP) course of 1-3 credit hours for the semester or summer they are on co-op. Students must also complete a co-op report and supervisor evaluation to receive credit. Co-op credits may be applied toward graduation requirements in accordance with university and departmental policy. CP 297/397/497/697 (1-3 credits. Prerequisite: Permission of instructor.) Credit is available for each semester or summer work experience upon approval by the departmental cooperative education coordinator, Dr. West.

WebAdvisor shows 1 credit hour for CP courses. A student may register for more credits by changing to the appropriate number of credits. Because the work performed by a co-op student is equivalent to the workload of a full-time student, a student on co-op who is registered for co-op credit shall be considered to have full-time student status. Students must satisfy departmental requirements to earn credit for the course. Requirements include a written report of the work experience and an employer’s evaluation of the work performance. Credits may be applied only under the category of free electives.

Table 1-10 Student Satisfaction Inventory (SSI) data for seniors from spring 2015

ITEM	METALLURGICAL ENGINEERING	2015 IMP	2015 SAT	2015 Gap	MINES IMP	MINES SAT	MINES GAP
Academic Advising Scale		6.20	5.73	0.47	6.21	5.40	0.81
6	My academic advisor is approachable.	6.42	6.33	0.08	6.34	5.63	0.71
14	My academic advisor is concerned about my success as an individual.	6.33	5.92	0.42	6.16	5.48	0.68
19	My academic advisor helps me set goals to work toward.	5.50	5.17	0.33	5.66	4.88	0.78
33	My academic advisor is knowledgeable about requirements in my major.	6.50	6.25	0.25	6.50	5.68	0.82
55	Major requirements are clear and reasonable.	6.25	5.00	1.25	6.40	5.34	1.06
Concern for The Individual Scale		5.38	4.48	0.90	5.94	5.19	0.75
3	Faculty care about me as an individual.	6.25	5.83	0.42	6.09	5.55	0.54
22	Counseling staff care about students as individuals.	4.08	2.50	1.58	5.64	4.99	0.65
25	Faculty are fair and unbiased in their treatment of individual students.	6.00	4.42	1.58	6.38	5.23	1.15
30	Residence hall staff are concerned about me as an individual.	3.33	2.73	0.61	4.95	4.55	0.40
59	This institution shows concern for students as individuals.	6.25	5.33	0.92	6.18	5.13	1.05
14	My academic advisor is concerned about my success as an individual.	6.33	5.92	0.42	6.16	5.48	0.68
Instructional Effectiveness		6.32	5.44	0.88	6.35	5.41	0.94
16	The instruction in my major field is excellent.	6.83	6.25	0.58	6.65	5.67	0.98
25	Faculty are fair and unbiased in their treatment of individual students.	6.00	4.42	1.58	6.38	5.23	1.15
3	Faculty care about me as an individual.	6.25	5.83	0.42	6.09	5.55	0.54
39	I am able to experience intellectual growth here.	6.90	5.82	1.08	6.56	5.94	0.62
41	There is a commitment to academic excellence on this campus.	6.42	5.75	0.67	6.44	5.82	0.62
47	Faculty provide timely feedback about student progress in a course.	6.08	3.92	2.17	6.27	4.67	1.60
53	Faculty take into consideration student differences as they teach a course.	5.58	4.83	0.75	5.68	4.82	0.86
58	The quality of instruction I receive in most of my classes is excellent.	6.67	5.58	1.08	6.68	5.54	1.14
61	Adjunct faculty are competent as classroom instructors.	6.09	5.45	0.64	6.00	5.30	0.70
65	Faculty are usually available after class and during office hours.	6.50	6.08	0.42	6.38	5.70	0.68
68	Nearly all of the faculty are knowledgeable in their field.	6.58	6.67	-0.08	6.65	6.02	0.63
69	There is a good variety of courses provided on this campus.	6.00	5.08	0.92	6.31	4.90	1.41
70	Graduate teaching assistants are competent as classroom instructors.	5.75	4.75	1.00	5.99	4.94	1.05
8	The content of the courses within my major is valuable.	6.83	5.75	1.08	6.71	5.64	1.07
Headcount		12			290		

Table 1-11 Second Year Student Assessment (SYSA) data for academic advising for MET for fall 2015

Please tell us how <u>important</u> it is for your institution to meet this expectation. My Academic Advisor is approachable. This is:			Please tell us how <u>satisfied</u> you are that your institution has met this expectation. My academic advisor is approachable: I am			Please tell us how <u>important</u> it is for your institution to meet this expectation. My academic advisor is concerned about my success as an individual: this is			Please tell us how <u>satisfied</u> you are that your institution has met this expectation. My academic advisor is concerned about my success as an individual: I am		
	Number of respondents	Percent		Number of respondents	Percent		Number of respondents	Percent		Number of respondents	Percent
7. very important to me	5	45.5%	7. very satisfied	4	36.4%	7. very important to me	4	36.4%	7. very satisfied	4	36.4%
6. important to me	5	45.5%	6. satisfied	2	18.2%	6. important to me	5	45.5%	6. satisfied	7	63.6%
5. somewhat important to me	1	9.1%	5. somewhat satisfied	2	18.2%	5. somewhat important to me	1	9.1%	5. somewhat satisfied		0.0%
4. neutral to me		0.0%	4. neutral to me		0.0%	4. neutral to me		0.0%	4. neutral to me		0.0%
3. somewhat unimportant to me		0.0%	3. somewhat dissatisfied	3	27.3%	3. somewhat unimportant to me		0.0%	3. somewhat dissatisfied		0.0%
2. not very important to me		0.0%	2. not very satisfied		0.0%	2. not very important to me		0.0%	2. not very satisfied		0.0%
1. not important at all to me		0.0%	1. not satisfied at all		0.0%	1. not important at all to me	1	9.1%	1. not satisfied at all		0.0%
Total	11		Total	11		Total	11		Total	11	
Average	6.4		Average	5.4		Average	5.8		Average	6.4	
Please tell us how <u>important</u> it is for your institution to meet this expectation. My academic advisor helps me set goals to work towards: this is			Please tell us how <u>satisfied</u> you are that your institution has met this expectation. My academic advisor helps me set goals to work towards: I am			Please tell us how <u>important</u> it is for your institution to meet this expectation. My academic advisor is knowledgeable about requirements in my major: this is			Please tell us how <u>satisfied</u> you are that your institution has met this expectation. My academic advisor is knowledgeable about requirements in my major: I am		
	Number of respondents	Percent		Number of respondents	Percent		Number of respondents	Percent		Number of respondents	Percent
7. very important to me	2	18.2%	7. very satisfied	3	27.3%	7. very important to me	6	54.5%	7. very satisfied	6	54.5%
6. important to me	3	27.3%	6. satisfied	5	45.5%	6. important to me	5	45.5%	6. satisfied	5	45.5%
5. somewhat important to me	2	18.2%	5. somewhat satisfied		0.0%	5. somewhat important to me		0.0%	5. somewhat satisfied		0.0%
4. neutral to me	3	27.3%	4. neutral to me	3	27.3%	4. neutral to me		0.0%	4. neutral to me		0.0%
3. somewhat unimportant to me	1	9.1%	3. somewhat dissatisfied		0.0%	3. somewhat unimportant to me		0.0%	3. somewhat dissatisfied		0.0%
2. not very important to me		0.0%	2. not very satisfied		0.0%	2. not very important to me		0.0%	2. not very satisfied		0.0%
1. not important at all to me		0.0%	1. not satisfied at all		0.0%	1. not important at all to me		0.0%	1. not satisfied at all		0.0%
Total	11		Total	11		Total	11		Total	11	
Average	5.2		Average	5.7		Average	6.5		Average	6.5	

F. Graduation requirements

Early in the semester prior to the semester in which the student plans to graduate, the major advisor completes a degree check for the office of the Registrar and Academic Services (RAS). A degree check involves retrieving the student's record from WebAdvisor and performing an inventory of the student's academic record in conjunction with both general education and program requirements.

The advisor annotates the degree check sheet whenever a substitute course has been allowed for one of the required or recommended courses in the program. If a course was taken on an "Independent Study" or "Special Topics" basis because of the SD State System requirements for minimum course enrollment, this will be noted. Before a student's application for graduation will be processed by RAS, the advisor must sign and send to the registration officer a confirmation that a degree check has been performed and the student has met all requirements.

The Registrar and Academic Services (RAS) maintains records of all student course records. These records are available via campus-wide digital systems: Datatel/Colleague and WebAdvisor. Faculty members electing not to use the digital system can readily and promptly secure any student's records from a variety of administrative personnel. These records are used by program faculty, in concert with each program's student participation, to maintain the BS in Metallurgical Engineering Course Check List shown in Table 1-8, which shows progress towards graduation. The check list is typically reviewed every semester but at least annually. Students failing to make programmatically specified progress towards graduation are counseled by their advisor and, depending on the seriousness of the inadequacy, the program department head. The university also effectively maintains and enforces policies 1) requiring minimum overall and recent semester GPA performance, 2) specifying no more than three attempts in any one course, 3) requiring certain grade attainment in selected prerequisite (usually math) courses, and 4) assuring satisfaction of general education goals established by the Regents.

The Degrees Committee, with the help of Registrar and Academic Services, makes a final check on all graduating students to determine that all graduation requirements have been met. Before the Degrees Committee degree check the program department head conducts a degree check using Table 1-8, Table 1-12 and Table 1-13. The head then sends these completed tables for each student considered for graduation to Registrar and Academic Services for their consideration. The evaluation using these tables is completed at least two months before the student's graduation. Twelve of the credits listed in Table 1-12 as Humanities/Social Sciences must fulfill General Education requirements specified by the South Dakota Board of Regents.

This graduation application and degree-check process is currently under review with the aim of implementing processes that would effectively eliminate instances of students not discovering missed requirements until their final semester of enrollment. Alterations to degree audit and graduation application processes will be completed by the time of the site visit and can be explained in detail at that time.

The advisor annotates the Degree Check sheet whenever a substitute course has been allowed for one of the required or recommended courses in the program. If a course was taken on an Independent Study or Special Topics basis because of the SD State System requirements for minimum course enrollment, this will be noted. Before a student's application for graduation will be processed by RAS, the advisor must

sign and send to the registration officer a confirmation that a degree check has been performed and the student has met all requirements.

General Requirements

Common general graduation requirements apply for the Bachelor of Science degree in any curriculum offered by the university. Please refer to the curriculum for an individual degree program for specific course requirements. Each candidate for a degree is personally responsible for meeting all requirements for graduation. No university official can relieve a candidate of this responsibility. The South Dakota School of Mines and Technology reserves the right to change any course of study or any part of a curriculum in keeping with accreditation, educational, and scientific developments. The general education requirements must be approved by the student's advisor and by the Vice President for Academic Affairs/Provost. The general education requirements are summarized briefly in Table 1-12 and 1-13 below and are described in much more detail in Criterion 5 – Curriculum.

G. Transcripts of recent graduates

Student transcripts will be provided under separate cover to the PEV upon request per the Self-study guidelines. Table 1-14 is an example transcript. It includes a record of all credits accruing to the student at SDSM&T including transfer credits and credits earned at other SD regental state universities, if any, in addition to credits completed at SDSM&T. The header information describes the period of study and the institution where the study was conducted. The example transcript shows all credits beginning in 2013 that accrue to the student. The sub headings show the institution where the credit was completed and if outside the SD state university system is clearly identified as transfer credit. This student has credits from four institutions outside the SD regental system. All credits from within the SD regental system, which includes SDSM&T, are reported under the same heading since the state system has a common course numbering system. The total credits attempted and completed and GPA is reported at the end of each semester.

H. Enrollment and graduation trends (not required)

The enrollment and graduation trends for the BS Metallurgical Engineering program over the last six years are shown in Table 1-15. One unit is either a full-time equivalent student or the equivalent of 15 credits per term. As can be seen the enrollment in the program has grown significantly in the last few years. The BS Metallurgical Engineering program graduates during the evaluation period are listed in Table 1-16.

Outstanding Recent Graduate Awards

The Outstanding Recent Graduate Program honors graduates who have achieved exemplary career progress and recognition within ten years of their graduation. The program was originated and is sponsored by the SDSM&T Alumni Association and the SDSM&T Foundation. Candidates are reviewed based on nominations submitted by their undergraduate degree-granting department or program. The individuals selected for this award are considered excellent role models to show current students the importance of continued personal growth in a rapidly changing world. Typically, five awards are given yearly.

The BS Metallurgical Engineering program has a very strong record with respect to this award, and that has continued in the recent past with awards won yearly from 2005-2010. Table 1-17 lists the Recent Outstanding Recent Graduate awards from BS Metallurgical Engineering program alumni. In addition, Table 1-18 shows the graduation rates for the last six years.

Table 1-12 System-Wide General Education Requirements Checklist

Name: _____			
<i>Instructions: SDSM&T courses used to satisfy requirements must be selected from those listed on the back of this form. Enter the courses as you complete them and record the semester and year completed. Consult with your advisor on transfer courses.</i>			
Goal 1 Written communications (6 credits)			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)
Goal 2 Speech Communications (3 credits)			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)
Goal 3 Social Sciences (6 credits, in 2 disciplines or course prefixes)			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)
Goal 4 Arts/Humanities (6 credits; in 2 disciplines, course prefixes or a sequence of a foreign language)			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)
Goal 5 Mathematics (3 credits)			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)
Goal 6 Science (6 credits) Lecture and Lab are required			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)
Goal 7 Information Usage (9 credits) Courses indicated by * and bold on back			
Date	Cr. Hrs.	Course	Title (if transferred, from where?)

Table 1-13 General Education Requirement Goals

Goal Number	Goal Objective	Credit Hours Needed
1	Effective Writing	6
2	Communicate Effectively	3
3	Social Sciences	6
4	Arts and Humanities	6
5	Mathematics	3
6	Natural Sciences	6
7	Information	9
Globalization	Understand Global Issues	0.1 (MET 310)
Writing Intensive	Improve Writing	0.1 (MET 321)

Table 1-14 Sample transcript

Undergraduate Transcript

Page: 1 of 2
May 20, 2016

Student Attended/Attending
the Following Regental Universities:
The South Dakota School of Mines and Technology, Rapid City, SD

SEND TO:

COURSE	Course Title	CRD	GRD	RPT	COURSE	Course Title	CRD	GRD	RPT
Beginning Fall 2003, credit earned from all six SD Regental Universities will be identified and displayed under the term header									
2009 FALL Transfer Credit - Rio Salado College									
MAT	187 PRECALCULUS			5.00 A					
	TERM ATT: 5.00	CMPL: 5.00	GPA: 4.000						
	CUM ATT: 5.00	CMPL: 5.00	GPA: 4.000						
2010 SUMMER Transfer Credit - Mesa Community College									
ART	161 CERAMICS I			3.00 A					
	TERM ATT: 3.00	CMPL: 3.00	GPA: 4.000						
	CUM ATT: 8.00	CMPL: 8.00	GPA: 4.000						
2010 FALL Transfer Credit - Rio Salado College									
PHY	111 GENERAL PHYSICS I			4.00 B	R				
	TERM ATT: 4.00	CMPL: 4.00	GPA: 3.000						
	CUM ATT: 12.00	CMPL: 8.00	GPA: 4.000						
2011 SPRING Transfer Credit - Rio Salado College									
PHY	112 GENERAL PHYSICS II			4.00 A					
	TERM ATT: 4.00	CMPL: 4.00	GPA: 4.000						
	CUM ATT: 16.00	CMPL: 12.00	GPA: 4.000						
2011 FALL Transfer Credit - Arizona State University									
ENG	101 FIRST-YEAR COMPOSITION			3.00 A	R				
STPE	226 ELEMENTS OF STATISTICS			3.00 A					
PGS	101 INTRODUCTION TO PSYCHOLOGY			3.00 A					
SOC	101 INTRODUCTION TO SOCIOLOGY			3.00 A					
CDE	232 HUMAN DEVELOPMENT			3.00 A					
CED	194 SPECIAL TOPICS			2.00 A					
	TERM ATT: 17.00	CMPL: 17.00	GPA: 4.000						
	CUM ATT: 33.00	CMPL: 26.00	GPA: 4.000						
2012 SPRING Transfer Credit - Arizona State University									
BIO	181 GENERAL BIOLOGY I			4.00 A					
ENG	102 FIRST-YEAR COMPOSITION			3.00 A					
EDP	310 ED PSYCHOLOGY FOR NON-TEACHERS			1.00 A					
SOC	483 HISTORY OF SOCIAL THOUGHT			3.00 B					
SOC	484 INTERNSHIP			6.00 F					
CED	194 SPECIAL TOPICS			1.00 A					
FROM: Mesa Community College									
CHM	152 GENERAL CHEMISTRY II			3.00 A					
CHM	152L GENERAL CHEMISTRY II LAB			1.00 A					
EMT	101 CPR: BASIC CARDIAC LIFE SUPPO			0.50 S					
	TERM ATT: 22.50	CMPL: 16.50	GPA: 2.773						
	CUM ATT: 55.50	CMPL: 42.50	GPA: 3.438						
2012 SUMMER Transfer Credit - Mesa Community College									
EMT	104 BASIC EMERGENCY MED TECH			9.00 A					
	TERM ATT: 9.00	CMPL: 9.00	GPA: 4.000						
	CUM ATT: 64.50	CMPL: 51.50	GPA: 3.526						
2012 FALL Transfer Credit - Arizona State University									
MUS	354 POPULAR MUSIC			3.00 A					
PGS	222 HUMAN SEXUAL BEHAVIOR			3.00 A					
PSY	290 RESEARCH METHODS			4.00 A					
EDP	310 ED PSYCHOLOGY FOR NON-TEACHERS			1.00 A					
SOC	352 SOCIAL CHANGE			3.00 A					
CON	101 CONST/CULTURE: A BUILT			3.00 A					
	TERM ATT: 17.00	CMPL: 17.00	GPA: 4.000						
	CUM ATT: 81.50	CMPL: 68.50	GPA: 3.635						
2013 SPRING Transfer Credit - Arizona State University									
PSY	324 MEMORY AND COGNITION			3.00 A					
PSY	323 SENSATION AND PERCEPTION			3.00 A					
PGS	443 ABNORMAL CHILD PSYCHOLOGY			3.00 A					
SOC	324 WORK AND THE WORKPLACE			3.00 A					
PGS	315 PERSONALITY THEORY/RESEARCH			3.00 A					
PGS	399 SUPERVISED RESEARCH			1.00 S					
PGS	304 EFFECTIVE THINKING			3.00 A					
	TERM ATT: 19.00	CMPL: 19.00	GPA: 4.000						
	CUM ATT: 100.50	CMPL: 87.50	GPA: 3.707						
2013 SUMMER Advanced Placement - SD Board of Regents Universities									
M CHEM	112 GENERAL CHEMISTRY I			3.00 EX					
M CHEM	112L GENERAL CHEMISTRY I LAB			1.00 EX					
M ENGL	101 COMPOSITION I			3.00 EX					
M ENGL	210 INTRODUCTION TO LITERATURE			3.00 EX					
M MATH	123 CALCULUS I			4.00 EX					
M POLS	100 AMERICAN GOVERNMENT			3.00 EX					
	TERM ATT: 17.00	CMPL: 17.00	GPA: 0.000						
	CUM ATT: 117.50	CMPL: 104.50	GPA: 3.707						
2013 FALL Institutional Credit - SD Board of Regents Universities									
M EM	214 STATICS			3.00 A					
M MATH	125 CALCULUS II			4.00 A					
M MET	231 STRUCTURE & PROP OF MAT-LAB			1.00 A					
M MET	232 PROPERTIES OF MATERIALS			3.00 A					
M PE	113 VARSITY SPORTS			1.00 A					
FROM: Arizona State University									
PSY	341 HEALTH DEVELOPMENTAL PSYCHOLOG			3.00 A					
PSY	350 SOCIAL PSYCHOLOGY			3.00 A					
PSY	394 SPECIAL TOPICS			3.00 S					
PSY	366 ABNORMAL PSYCHOLOGY			3.00 A					
WST	100 WOMEN, GENDER, AND SOCIETY			3.00 A					
ASB	100 INTRODUCTION TO GLOBAL			3.00 A					
WST	313 WOMEN AND SEXUALITY			3.00 A					
	TERM ATT: 33.00	CMPL: 33.00	GPA: 4.000						
	CUM ATT: 150.50	CMPL: 137.50	GPA: 3.779						

*** Transcript Continues ***



Table 1-14 Sample transcript (cont'd)

Undergraduate Transcript

(Continued from page 1)

COURSE	Course Title	CRD	GRD	RPT	COURSE	Course Title	CRD	GRD	RPT
2014 SPRING Institutional Credit - SD Board of Regents Universities									
M EM 321	MECHANICS OF MATERIALS	3.00		A					
M ENGL 279	TECHNICAL COMMUNICATIONS I	3.00		A					
M IENG 301	BASIC ENGINEERING ECONOMICS	2.00		A					
M MATH 321	DIFFERENTIAL EQUATIONS	3.00		A					
M MET 220	MINERAL PROC/RESOURCE RECOVERY	3.00		A					
M MET 220L	MIN PROC&RESOURCE RECOVERY LAB	1.00		A					
M PHYS 211	UNIVERSITY PHYSICS I	3.00		A					
M PHYS 211A	UNIVERS PHYSICS I RECITATION	0.00		LR					
TERM	ATT: 18.00	CMPL: 18.00	GPA: 4.000						
CUM	ATT: 168.50	CMPL: 155.50	GPA: 3.807						
2014 FALL Institutional Credit - SD Board of Regents Universities									
M ENGL 289	TECHNICAL COMMUNICATIONS II	3.00		A					
M MATH 225	CALCULUS III	4.00		A					
M MET 320	METALLURGICAL THERMODYNAMICS	4.00		A					
M MET 351	ENGINEERING DESIGN I	2.00		A					
M MET 422	TRANSPORT PHENOMENA	4.00		A					
TERM	ATT: 17.00	CMPL: 17.00	GPA: 4.000						
CUM	ATT: 185.50	CMPL: 172.50	GPA: 3.828						
2015 SPRING Institutional Credit - SD Board of Regents Universities									
M EE 301	INTR CIRCUITS, MACHINES & SYST	4.00		A					
M EE 301L	INTRO CIRCUITS, MACHS&SYS LAB	0.00		LR					
M MATH 373	INTRO TO NUMERICAL ANALYSIS	3.00		A					
M MET 321	HIGH TEMP EXTRACT/CONC/RECYLIN	4.00		A					
M MET 321L	HIGH TEMP EXTRAC/CON/RECY LAB	0.00		LR					
M MET 352	ENGINEERING DESIGN II	1.00		A					
M MET 450	FORENSIC ENGINEERING	3.00		B					
TERM	ATT: 15.00	CMPL: 15.00	GPA: 3.800						
CUM	ATT: 200.50	CMPL: 187.50	GPA: 3.826						
2015 FALL Institutional Credit - SD Board of Regents Universities									
M MET 330	PHYSICS OF METALS	3.00		A					
M MET 332	THERMOMECHANICAL PROCESSING	3.00		B					
M MET 464	ENGINEERING DESIGN III	2.00		B					
CLEP - SD Board of Regents Universities									
M SPAN 101	INTRODUCTORY SPANISH I	4.00		EX					
M SPAN 102	INTRODUCTORY SPANISH II	4.00		EX					
TERM	ATT: 16.00	CMPL: 16.00	GPA: 3.375						
CUM	ATT: 216.50	CMPL: 203.50	GPA: 3.806						
2016 SPRING Institutional Credit - SD Board of Regents Universities									
M MET 310	AQUEOUS EXTRACT/CONC/RECYCLNG	3.00		B					
M MET 310L	AQUEOUS EXTRACT/CONC/RECYCL L	1.00		A					
M MET 432	ADVANCED MATERIALS & PROCESSES	3.00		A					
M MET 433	PROCESS CONTROL	3.00		A					
M MET 440	MECHANICAL METALLURGY	3.00		A					
M MET 440L	MECHANICAL METALLURGY LAB	1.00		A					
M MET 465	ENGINEERING DESIGN IV	1.00		B					
M MET 491	INDEPENDENT STUDY	1.00		A					
TERM	ATT: 16.00	CMPL: 16.00	GPA: 3.750						
CUM	ATT: 232.50	CMPL: 219.50	GPA: 3.801						
	ATT	CMPL	GPA	GRADE	GPA				
	HRS	HRS	HRS	PTS					
TRANSFER	146.50	133.50	110.00	413.00	3.755				
INSTI SDSMT	86.00	86.00	86.00	332.00	3.860				
CUM	232.50	219.50	196.00	745.00	3.801				

*** End of Transcript ***

Table 1-15 Undergraduate enrollment trends for SDSM&T for the past six academic years: BS Metallurgical Engineering program

Category	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Full-time Student Summer	0	1	0	0	0	
Full-time Student Fall	84	75	63	76	101	122
Full-time Student Spring	75	62	63	72	96	103
Part-time Student Summer	15	10	9	15	12	
Part-time Student Fall	4	1	5	6	9	11
Part-time Student Spring	6	10	7	7	9	10
Student FTE1 Summer	4.7	3.9	1.7	4.7	3.5	
Student FTE Fall	85.8	76.1	64.8	76	102.3	126.2
Student FTE Spring	79.2	64.1	65.3	74.4	100.5	106.8
Total BS Degrees	12	15	14	9	11	17

Table 1-16 Program Graduates 2009-15

Last	First	Year Grad	Employer	Placed	Grad Schl	F
[REDACTED]	[REDACTED]	2009	Quarq	1		
[REDACTED]	[REDACTED]	2009	Xyvex	1	1	
[REDACTED]	[REDACTED]	2009	North American Stainless	1	1	
[REDACTED]	[REDACTED]	2009	Alcoa	1		
[REDACTED]	[REDACTED]	2009	Spirit Aerosystems	1		1
[REDACTED]	[REDACTED]	2009	Nucor Steel	1		
[REDACTED]	[REDACTED]	2010	FLSmith Minerals	1		
[REDACTED]	[REDACTED]	2010	Hill AFB	1		
[REDACTED]	[REDACTED]	2010	RPM and Associates	1	1	
[REDACTED]	[REDACTED]	2010	Montana Precision Products	1	1	
[REDACTED]	[REDACTED]	2010	Nucor Steel	1		
[REDACTED]	[REDACTED]	2010	MS student SDSM&T	1	1	
[REDACTED]	[REDACTED]	2010	PhD student UAB	1	1	
[REDACTED]	[REDACTED]	2010	Nucor Steel	1		
[REDACTED]	[REDACTED]	2010	MS student SDSM&T	1	1	
[REDACTED]	[REDACTED]	2010	PhD student NTNU, Norway	1	1	
[REDACTED]	[REDACTED]	2010	No Response	1		
[REDACTED]	[REDACTED]	2011	McConway & Torley	1		1
[REDACTED]	[REDACTED]	2011	Alcoa	1		1
[REDACTED]	[REDACTED]	2011	MS student SDSM&T	1	1	1
[REDACTED]	[REDACTED]	2011	Sumitomo Metals Company	1		
[REDACTED]	[REDACTED]	2011	Neapco	1		
[REDACTED]	[REDACTED]	2011	RPM and Associates	1		
[REDACTED]	[REDACTED]	2011	Nucor Steel	1		1
[REDACTED]	[REDACTED]	2011	Lyondell Basell	1	1	
[REDACTED]	[REDACTED]	2011	Caterpillar	1		
[REDACTED]	[REDACTED]	2011	John Deere	1		
[REDACTED]	[REDACTED]	2011	Stupp Corporation	1		1

Table 1-16 Program Graduates 2009-15 (cont'd)

[REDACTED]	[REDACTED]	2012	Goldcorp (Marigold Mining)	1		
[REDACTED]	[REDACTED]	2012	Barrick Gold	1		
[REDACTED]	[REDACTED]	2012	Freeport McMoRan	1		1
[REDACTED]	[REDACTED]	2012	Nucor Steel	1		
[REDACTED]	[REDACTED]	2012	Logan Aluminum	1	1	
[REDACTED]	[REDACTED]	2012	Nucor Steel	1		
[REDACTED]	[REDACTED]	2012	Freeport McMoRan	1		
[REDACTED]	[REDACTED]	2012	Nucor Steel	1		
[REDACTED]	[REDACTED]	2012	Brillion Iron Works	1		
[REDACTED]	[REDACTED]	2012	Gerdau	1		1
[REDACTED]	[REDACTED]	2012	Nucor Steel	1		
[REDACTED]	[REDACTED]	2012	Freeport McMoRan	1		
[REDACTED]	[REDACTED]	2013	Strum Ruger & Co	1		
[REDACTED]	[REDACTED]	2013	PhD student CSM	1	1	
[REDACTED]	[REDACTED]	2013	US Army	1		
[REDACTED]	[REDACTED]	2013	Nucor Steel	1		
[REDACTED]	[REDACTED]	2013	Logan Aluminum	1		
[REDACTED]	[REDACTED]	2013	Hurst Metallurgical Research Lab	1		
[REDACTED]	[REDACTED]	2013	Kondex	1		
[REDACTED]	[REDACTED]	2013	L&H Industrial	1		
[REDACTED]	[REDACTED]	2013	Applied Control Equipment	1		
[REDACTED]	[REDACTED]	2013	Nucor Steel	1		
[REDACTED]	[REDACTED]	2013	MS student SDSM&T	1		
[REDACTED]	[REDACTED]	2013	MS student SDSM&T	1	1	
[REDACTED]	[REDACTED]	2013	Nucor Steel	1		
[REDACTED]	[REDACTED]	2014	Nucor Steel	1		
[REDACTED]	[REDACTED]	2014	MS student SDSM&T	1		
[REDACTED]	[REDACTED]	2014	Parker Hannifin	1		
[REDACTED]	[REDACTED]	2014	US Marine Corp	1		
[REDACTED]	[REDACTED]	2014	MS student SDSM&T	1	1	1
[REDACTED]	[REDACTED]	2014	Western States Fire Protection	1		
[REDACTED]	[REDACTED]	2014	Nucor Steel	1	1	
[REDACTED]	[REDACTED]	2014	RC Regional Health	1		
[REDACTED]	[REDACTED]	2014	Klondex Mine	1		
[REDACTED]	[REDACTED]	2014	Returned to Kuwait	1		1
[REDACTED]	[REDACTED]	2014	Looking			
[REDACTED]	[REDACTED]	2014	Spirit Aerosystems	1		
[REDACTED]	[REDACTED]	2014	Looking			
[REDACTED]	[REDACTED]	2015	MS student SDSM&T	1	1	1
[REDACTED]	[REDACTED]	2015	Nucor Steel	1		
[REDACTED]	[REDACTED]	2015	Nucor Steel	1		
[REDACTED]	[REDACTED]	2015	PhD student U of IL	1	1	
[REDACTED]	[REDACTED]	2015	Looking			
[REDACTED]	[REDACTED]	2015	Nucor Steel	1		1
[REDACTED]	[REDACTED]	2015	Looking			
[REDACTED]	[REDACTED]	2015	Walker Forge	1		
[REDACTED]	[REDACTED]	2015	MS student SDSM&T	1	1	
[REDACTED]	[REDACTED]	2015	Denso	1		
[REDACTED]	[REDACTED]	2015	MS student SDSM&T	1	1	

Table 1-16 Program Graduates 2009-15 (cont'd)

██████	██████	2015	No Reponse			
██████	██████	2015	Tinker AFB	1		
				75	20	12
				94%	25%	15%

Table 1-17 Program Outstanding Recent Graduates (2010-15)

Name	Year Graduated	Year Awarded	Employer
Grant Crawford	2004	2015	SDSM&T
Lisa Schlink	2004	2014	Freeport McMoRan
Derek Rebsom	2002	2013	Medtronic
Bert Cantu	2001	2012	John Deere
Chad Griswold	2001	2011	3M
Jeffrey Major	1999	2010	Quest Integrity Group

Table 1-18 Graduation rates in BS Metallurgical Engineering program

Fed Cohort	Student count	Grad 4 years or less	Grad 5 years or less	Grad 6 years or less	Grad 4 years or less	Grad 5 years or less	Grad 6 years or less
M2006	19	9	15	16	47.4%	78.9%	84.2%
M2007	13	4	5	5	30.8%	38.5%	38.5%
M2008	14	7	9	9	50.0%	64.3%	64.3%
M2009	16	5	9	9	31.3%	56.3%	56.3%
M2010	20	6	9	11	30.0%	45.0%	55.0%
M2011	10	4	6	6	40.0%	60.0%	60.0%
M2012	12	2	2	2	16.7%	16.7%	16.7%
M2013	21						
M2014	37						
M2015	39						