CRITERION 8 - INSTITUTIONAL SUPPORT

The institution provides support to the BS in Metallurgical Engineering in the form of leaders who interface with the people of the state of South Dakota via the SD executive branch, the SD Legislature, and the South Dakota Board of Regents (SDBOR) through which a large portion of the program's funding derives. This section of the report describes the leadership structure and the budgetary process at the university level. The staffing made possible by such funding is described as are the faculty hiring and development practices and procedures.

A. Leadership

SDSM&T no longer has colleges or deans; therefore, the administrative structure of the Academic Affairs division is notably flat. Department heads enjoy direct access to executive leaders and meet every two weeks with Dr. Demitris Kouris, Provost and Vice President for Academic Affairs in the Academic Leadership Council Meeting (ALC). The meeting minutes of this meeting are distributed campus wide. Periodically President Wilson, Vice President for Finance Stephen Malott, or Vice President of Research Affairs Dr. Jan Puszynski attend the ALC meetings. Additionally, each department head meets monthly on a one-on-one basis with the Provost and Vice President for Academic Affairs who is available for more frequent meeting as needed.

Faculty ownership of the curriculum and oversight of academic matters are assured by the structures and processes of the Faculty Senate, program curriculum committees, the University Curriculum Committee, the Promotion and Tenure Committee, and the Council on Graduate Education. Decision making by these entities is faculty controlled. The Faculty Senate President Dr. Rodney Rice meets with the president monthly.

Structures that help ensure the flow of communication across areas of research include the University Research Committee, which has representatives for all major areas of research and smaller focused groups that are organized around the key research areas of energy and the environment, materials and manufacturing, underground science and engineering, and STEM education.

To ensure the availability of information across units and academic department, a shared drive on the intranet serves as a common repository for policies, procedures, and agreements. Every month, the finance office distributes two types of budget reports:

- Overall institutional budget report to each executive council members that tracks revenue and expenses, profit and loss for all categories, such as salaries, benefits, supplies, etc.
- Up-to-date accounting to each academic program and unit administrators detailing the accounts over which they have budgetary authority.

Academic department heads hold 12-month positions with reduced teaching and/or research commitments. They are the administrators with primary responsibility for the academic programs residing within their department. These responsibilities include program enrollment management and the fostering of opportunities for external funding. The fiduciary

responsibilities of department heads include managing the budget for the program, making salary recommendations, and overseeing operating expenses and student support budgets. Department heads provide an important oversight and coordinating step in the process of approving research proposals submitted by their faculty members.   Department heads provide input to the provost on space utilization, program needs, and any additional information needed by the administration to ensure the effective management of institutional resources.

The six goals of the strategic plan are posted at (http://www.sdsmt.edu/About/Strategic-Plan/) and consist of the following:
- **Student Success -** Prepare more undergraduate students for leadership in engineering and science.
- **Research -** Increase research to prepare science and engineering experts, advance knowledge, and catalyze economic development.
- **Facilities -** Redevelop and expand needed living, learning, and research spaces.
- **People -** Recruit, develop, and retain excellent faculty and staff.
- **Administration -** Responsibly steward financial and physical resources.
- **Development -** Establish a robust culture of philanthropy to enable the university to sustain excellence.

B. Program budget and financial support
Several months before the new fiscal year, the Department of Finance and Administration develops the program budget and determines the level of financial support for the coming fiscal year. Input from the Department Head on this process is giving during a budget hearing conducted in November or December. The budget hearing often includes specific financial requests from the program (i.e. funding to hire new faculty or additional funding for teaching assistants) along with discussion and evidence of how current financial resources are being used to support the educational mission of the program and university. Each program's budget request must contain the following elements:
- Summary of program / unit results related to university strategic goals
- Review of previous fiscal year budget and actual expenditures
- Proposed operating budget initiatives for the budget year ahead to support the university's strategic objectives or preparation for accreditation (and estimated costs)
- Proposed cost reductions or shifts in university budgets to fully or partially fund priorities within limited resources
- Treatment of special topics

For the FY 2016 budget, the special topics were retention and the first-year experience, enrollment planning, and fundraising. Budget requests were required to include treatment of the program or unit's contributions to these special topic areas.

Financial support for the program is comprised of a number of institutional sources including:
- Tuition and fees (recurring)
- Overhead funds from research (recurring)
- Foundation/Development funds (temporary)

The cost for an undergraduate in the BS in Metallurgical Engineering is shown in Table 8-1. In addition to these costs, selected metallurgical engineering laboratories have a lab fee not exceeding $30 per credit for supplies.   In the last period, the Engineering Service Fee (Lab Fees) has changed to a Special Disciplines Fee. A portion of fees generated from courses also goes into supporting laboratory maintenance and consumables.

Table 8-1 Estimated SDSM&T undergraduate cost for (2016-17)

Undergraduate	SD	Non-SD
Tuition and Fees*	$10,400	$14,560
Books and Supplies**	$2,000	$2,000
Room and Board	$7,720	$7,720
Estimated Annual Total	$20,120	$24,280

*   Averages based on 30 credits per year
** Includes Tablet PC Program.

Overall program support for personnel, departmental operations, and operating expenses for the last three fiscal years is summarized in Table 8-2 below.   Table 8-2 shows that financial support for faculty and staff has increased as new faculty have been hired. Funding support for teaching assistants has remained constant. Additional support for the two new faculty hired in 2013 has been provided by the office of the Provost in the form of one-time start-up funds of nearly $90,000.

Table 8-2 Program budget

Fiscal Yr	Faculty & Staff	TA's	Lab/Disc Fee	Univ Support
2013	$430,909	$8,043	$66,058	$13,491
2014	$747,026	$8,043	$93,275	$12,991
2015	$770,251	$8,043	$75,535	$10,292

Significant sources of support for the department also come from Foundation (private) accounts and returned overhead from research grants. A summary of starting budgets and expenditures from Foundation accounts is shown in Table 8-3. The most significant source of unrestricted program support continues to be from the Nucor endowment ($1M). Other significant sources of industry funding came from Goldcorp, John Deere, Cliffs Resources, and Newmont. These Foundation funds have predominately supported student program activities, faculty development, lab improvement, and small equipment acquisitions.   The table also summarizes scholarship money available to support students through both endowed and one-time gifts. The program continues to conduct development work in cooperation with Foundation staff to ensure adequate funds are available to support the program as needed.

Table 8-3 Summary and expenditures from foundation accounts

Fiscal Yr	Program Starting	Travel	Equipment/ Lab Support	Scholarships
2013	$80,171	$15,116	$2,010	$65,500
2014	$84,533	$9,767	$9,290	$91,000
2015	$92,932	$8,920	$9,217	$84,500

Faculty have also been successful in competitive funding for research (as detailed in Criterion 6) from a variety of sources including the National Science Foundation, Department of Defense, and NASA. Table 8-4 shows a summary of returned overhead budget information available to support the department. Expenditures shown have primarily supported faculty travel and maintenance of major equipment.

Table 8-4 Summary of expenditures from overhead accounts

Fiscal Yr	Starting Balance	Indirect Revenue	Expenditures
2013	$38,745	$16,313	$25,807
2014	$24,169	$17,529	$25,001
2015	$23,537	$43,551	$26,965

In summary, the state support provides a critical base for program execution by providing the necessary faculty FTE's to deliver the necessary breadth of the program. The department continues to successfully leverage other resources in the form of private industry and research funding to ensure student outcomes are met.

C. Staffing

Faculty numbers have increased since the last ABET review in 2010 from approximately 130 to 150. Staff numbers have followed the same trend as shown in Table 8-5. Reliance on term-contract faculty is low at approximately 15 percent or less. A number of these part time faculty are emeritus faculty serving part time and so are among the most experienced faculty on campus. This is the case for BS. In Metallurgical Engineering program, which retained the part time services of Dr. Howard who had 43 years of experience at SDSM&T before his two years of part time service beginning in the fall of 2014. The overall campus student/faculty ratio has remained at good levels. The institution does not use graduate students as instructors.

Department heads are appointed as 12-month faculty members with significantly reduced teaching loads to accommodate the need for year-round program oversight and planning. The department of Materials and Metallurgical Engineering has approximately four TA's hired at 15 hours/week who are used in the instructional program for grading and for preparation of undergraduate laboratory experiments. If the TA is a graduate student nearing the completion of their MS or PhD program of study, they may assist undergraduate students by answering questions, but this not widely employed. Also, on rare occasions, an experienced TA may work problems in a class period when the instructor is unavailable (travel, illness, etc.). This is done only if an experienced faculty member is unavailable. The total time in the classroom for all such substitution is well under 10 hours per year for all metallurgical engineering courses combined.

Table 8-5 Annual Institutional Update Data submitted to the HLC on Employees and Student/Faculty Ratios

Employee Type	2009	2010	2011	2012	2013	2014	2015
Full-Time Faculty	126	130	130	142	153	148	149
Part-Time Faculty	17	17	23	18	16	26	26
Full-Time Annually contracted staff	123	143	134	149	128	140	149
Part-Time Annually contracted staff	4	8	18	33	43	40	28
Full-Time Civil Service Support staff	53	52	50	40	43	77	112
Part-Time Civil Service Support staff	13	18	14	13	13	27	21
Student-Faculty Ratio	N/A	14	14	14	14	14	15

Staffing for all areas of campus tends to run slightly behind demand. During recent years of tight budgets, requests for additional faculty and staff positions consistently outpaced available funding; therefore, the analysis of what positions need to be filled to meet needs in critical areas is conducted as part of the annual budget-building process. Working with budget projections, executive leaders in all areas must prioritize hiring requests and plan for restructuring or redistribution of duties to ensure adequate staffing.

Staffing levels in Student Development are based on enrollment and national best practices, such as the expectation that one psychological counselor be available to serve no more than 800 students.

Work is underway now to develop a faculty workload model promises to improve processes for allocating funding for positions. The purpose of such a model would be to generate data that would quantify both productivity and demand and support equitable distribution of resources between and among academic departments, but it is difficult to equitably quantify faculty activity.

The Human Resources Office contributes to processes for ensuring adequate staffing by monitoring and forecasting employee turnover. Turnover is anticipated by tracking the following:

- Retirement eligibility
- Planned and unplanned resignations
- Dismissal or reduction in force
- Identification of succession planning for emergency unplanned absences
- Classification changes and promotions

Once a position becomes vacant, it is reviewed for the following:

- Essential duties and responsibilities
- Institutional needs and funding
- The possibility of collapsing or eliminating functions, or the need for additional functions
- Organizational/reporting structure
- Cross-training opportunities

The SDBOR institutions have unified HR polices and processes for employee position-description creation, recruitment, classification, and compensation. All institutions in the Regents system use a shared Online Employment System (OES) for recruitment and application-processing. In order to create a position description and to initiate a search, users of the OES must answer a fairly extensive array of questions ranging from the skills and attributes required of candidates to budget sources for the position.

Career Service Act (CSA) employees are subject to the Affirmative Action Plan, South Dakota Codified Law, the Administrative Rules of South Dakota, and the Recruitment and Selection Guidelines of the Bureau of Personnel. State law requires that CSA employees be appointed, promoted, compensated, or terminated according to Civil Service Act criteria. Rights and responsibilities of faculty eligible for collective bargaining are defined by the Council of Higher Education (COHE) agreement. BOR policy defines the duties and responsibilities of faculty not in the collective bargaining unit, in a manner nearly identical to the COHE agreement. Non-faculty Exempt (NFE) employees in professional or research roles have annual contracts. ARAMARK Corporation manages dining services and handles its own human resource functions. Student health services are also provided by a private contractor.

The hiring of students is handled internally, and the process for hiring involves the Personnel Action Request (PAR), which was greatly simplified in 2015 into an electronic EPAR that is trackable and paperless.

Human Resources staff visits with all new hires to discuss benefits and responsibilities on their first day of employment.   Anti-harassment and drug and alcohol policies are described and detailed in handouts.   In 2016, an online training system is being implemented to cover anti-harassment and discrimination training. This training also covers Title IX. Three times a year, an orientation is held to introduce CSA, NFE, and Faculty employees to each other, to have senior management introduce their divisions and/or areas of responsibility, to watch a video of the history of the SDSM&T, and to tour the campus. The president hosts an annual new employee reception and periodic receptions for all faculty.

To ensure employees remain current in skills and development, free or low-cost professional development training offerings are publicized by the state Bureau of Personnel (BOP) through email and a comprehensive calendar of all training opportunities. To accommodate singular requests, Human Resources (HR) automatically approves all requests for online training. Faculty training is handled within the department and needs identified through each faculty member's annual evaluation and/or Professional Development Plan. Specialized professional development for staff members in key areas, such as Admissions, Registration and Student Services, Student Development, etc., is funded out of unit budgets, and training needs are typically identified in one of two ways: 1) the supervisor or employee will include a training request in their annual performance review materials, or 2) the supervisor will ensure that their direct reports remain connected with and active in relevant professional societies and/or user groups within the SDBOR system. For example, system schools are engaged in an Oracle migration, expanding use of the EMAS recruitment management platform, and improving degree-audit processes. Training occurs at and is coordinated by all system schools through the SDBOR.

D. Faculty hiring and retention

All institutions in the Regents system use a shared Online Employment System (OES) for recruitment and application-processing. An online workbook, "Hiring Procedures and Online Employment System Processing" guides the Hiring Manager.   All members of search and screen committees and employees granted hiring authority must attend a "Best Hiring Practices" workshop. A Hiring Manager uses online forms to document all steps in the hiring process, including detailed information about the nature, scope, and requirements of the position as well as the knowledge, skills, and abilities required. Set questions in the online forms solicit information on the organizational culture, values, and work environment for the position, and this information shared with the search committee and applicants.   Background checks are outsourced to HireRight®.

Search committees are composed to ensure a diversity of perspectives and a comprehensive evaluation of candidates. The regional labor pool and demographics of STEM PhDs result in minorities and women being underrepresented. To counter this, Human Resources targets advertising; promotes the institutional commitment to recruiting a diverse workforce; and presents workshops on proper behavior, diversity and hiring.

The Department of Materials and Metallurgical Engineering has a direct link to the Diversity in Minerals, Metals, and Materials Profession Summit and related activities through Dr. Howard who serves as the president of TMS, which is a sponsoring society of the Diversity Summit.

Over the last decade, SDSM&T made a concerted effort to improving gender and racial diversity for faculty in STEM disciplines as shown in Table 8-6. During the spring semester 2016, women comprise 25 percent of the SDSM&T faculty.

Table 8-6 SDSM&T hiring data from 2005 to 2015

Year	All Hires			Faculty Hires		
	All	Female	Minority	All	Female	Minority
2005	27	11	5	9	2	1
2006	41	18	9	12	1	4
2007	31	17	6	7	0	2
2008	36	18	7	7	0	2
2009	52	17	10	11	0	3
2010	44	19	7	10	2	0
2011	11	5	3	3	0	1
2012	26	11	4	17	9	5
2013	20	8	7	13	5	4
2014	21	5	7	9	1	4
2015	20	9	4	8	1	2

Faculty members are evaluated according to the terms set SDBOR system-wide COHE collective bargaining agreement. Expectations for percentage of time allocations for teaching, research, and service are set each year in the annual review. Every year, all faculty members prepare a summary of all teaching, scholarship, and service activities and a description of performance objectives for the coming year for review with and approval by the department head. Both the head and the faculty member sign off on a performance evaluation write up. Guiding these evaluations are a campus-wide Statement of Institutional Priorities for Faculty Performance. Discipline-specific criteria for levels of performance (i.e., meets, does not meet, and exceeds expectations) are set at the program level. In addition, each faculty member in the SDBOR system creates a Professional Development Plan (PDP) according to a SDBOR template that aligns the faculty member's plan with institutional goals and solicits information on resources and professional development needed to remain productive. Plans are signed off on by the department head and the provost and go into a faculty member's file for use in annual review.

The Department of Human Resources leads activities that promote faculty and staff retention and engagement. These activities are summarized in Tables 8-7 and 8-8 below.

Table 8-7 Processes and activities to foster employee engagement and satisfaction

Employee retention efforts are varied and include the following:
- Advertising the "Rule of 85" opportunity which allows an employee whose age plus years of service equal 85 to retire with full benefits
- Securing salary competitiveness funding from the legislature based on benchmarking of salaries and benefits against peer institutions
- Offering longevity pay for NFE and CSA employees beginning their seventh year of employment. The annual rate begins at $100 per year and continues to accumulate to $2205 for 49 years of service
- Holding an annual employee recognition award event (including ARAMARK employees) to congratulate and thank employees for their years of service. Employment anniversaries are recognized on five-year increments, by state pins, gift certificates, and commemorative timepieces
- Offering generous benefits packages negotiated for employees with vendors by the State of South Dakota's Bureau of Personnel. Leave accrual increases at 15 years from 10 hours to 13.34 hours; maximum vacation hours to accrue jumps from 240 to 320 hours.
- Providing feedback on performance and soliciting input and requests through annual Accountability and Competency Evaluation (ACE) performance review processes for all NFE and CSA employees and their supervisors
- Sending birthday cards with gift coupons to every employee every year
- Welcoming new employees with a card containing bookstore discount and free meal coupons
- Inviting all employees to a monthly "Payday Coffee and Cookies" social hosted by the President

A fully equipped Wellness Center is available with flexible hours for faculty and staff use. Preventive health care, including health screenings, wellness fairs, and inoculations, are strongly promoted by the State Bureau of Personnel. Employees with chronic illnesses, such as diabetes, heart disease, chronic back pain, and asthma, are counseled and tracked through the Latitude

program. And employees are informed about all services and health-related deadlines and notifications through the Benefits Briefings sent by Human Resources.

E. Support of faculty professional development
Faculty training is funded within the department and needs are identified through each faculty member's annual evaluation and/or Professional Development Plan. Campus-wide professional development for instructors is handled by a development expert in Human Resources who convenes a Faculty Development Committee comprised of one faculty member from each department on campus to select at least two pedagogy workshops per year and to design book groups, in-house seminars, new-faculty cohort groups, and other training sessions that make the best use of the $25,000 yearly budget. Review of professional development and training needs is conducted yearly as part of the annual evaluation.

Department of Materials and Metallurgical Engineering attend at least one national level profession society meeting each year. All departmental faculty members are actively engaged in research and publication and professional service as described in Criterion 6. Campus seminars and webinars are offered frequently on a wide range of topics.

Table 8-8 Processes and activities to foster engagement and satisfaction are detailed below.

Process or activity	How designed	Contribution to employee engagement and satisfaction
All campus convocations, and breakfasts with the president	Since 2008, annual convocations and bi-annual, mid-semester all-campus "breakfasts" with the president are held.	All campus is invited and fed at convocations and planning sessions. Planning documents and reports are shared, and an <u>annual report</u> is published online.
Weekly executive council meetings	The president meets with the provost, vice presidents, and directors of athletics, the Foundation and the Alumni Association	Minutes are kept, and any employee can forward an issue for discussion through his or her supervisor.
Monthly Cabinet meetings	Cabinet is comprised of the Executive Council members and representatives from the Student Association, Faculty Senate, athletics, facilities, and NFE and CSA employee councils.	Minutes are published and observers may attend as desired. Cabinet represents all campus constituents and is an important venue for policy discussions.
Academic Leadership Council	The provost meets twice monthly with the department heads; minutes are kept and widely distributed.	Having one layer of reporting between faculty members and the provost fosters transparency and empowerment.
Campus Committee structure	Institutional culture is to have as few committees as needed, to publish clear charges and a list of all members, and to retire inactive groups.	Members are elected or volunteers solicited. The campus size means that nearly all employees serve.
NFE and CSA meetings	Meetings are held monthly, typically with a socially interactive element, such lunch or presentations	All NFE and CSA employees are members, so all have representation
Online news	University Relations posts current and archived news releases on the website and refreshes almost daily a rollover display of headlines with illustrations on the home page of the web presence.	The "News and Events" tab on the web presence consolidates all news items, press releases, and events announcements in one area.
Newsletter for K-12 community	The Office of the President publishes <u>Monthly@Mines</u>	SDSM&T touts the accomplishments of faculty and remind the educational community of the resources they offer.
Employee appreciations	Annual employee recognition award event for all employees.	Event features retrospective slideshows, trivia contests, and door prizes
President's Picnic	Picnic on the quad held at the beginning of fall semester yearly	All faculty, staff, and students are served a picnic on the green
M-Week	Picnic and climb up M Hill held at Founder's Park	All faculty, staff, and students are included
Sponsored events	Free admission for faculty, staff and their families for all campus-sponsored events	