Earth and Atmospheric Sciences Department in 2017
A Five-Year Strategic Vision

Teaching
The Department of Earth and Atmospheric Science will continue to recruit and retain energetic, enthusiastic, and dedicated faculty who practice inquiry-based learning and teaching. Faculty will continue to use the latest technologies and teaching techniques to reach, recruit, and retain students from a diverse population. The Department will continue to support high-impact academic practices such as writing-intensive courses, collaborative assignments, fieldwork, undergraduate research, study abroad courses, service learning, learning communities, internships, and capstone courses. Learner-centered instructors will be integral to the future of the Department of Earth and Atmospheric Sciences.

MSU Denver’s reputation as a pre-eminent, urban baccalaureate institution will continue to evolve from a regional scale to a national and potentially international scale. We will continue to ensure that our majors successfully transition into employment and/or graduate programs that align with their career and life goals. We are confident that they possess the mindset and capacity for life-long learning; therefore, we must maintain a connection with our graduates to facilitate additional internship, graduate, and employment opportunities for our current and future students.

Faculty will continue to adapt course content and degree programs to rapidly changing fields. Curriculum development must be driven by comprehensive program assessments as well as an understanding of workforce trends and societal needs. However, it is also important that students have long-lasting foundational skills and knowledge. Each degree program will continue to be at the forefront to prepare students for the expanding needs of society. The Department will continue to improve and implement assessment plans for each program to ensure that appropriate learning outcomes are met. Specifically, courses and/or programs that address adaptation strategies and sustainable solutions associated with environmental change will be designed. Complimentary, the Geology program will be redesigned with scientific rigor to meet the needs of future students. We will continue to explore strategically focused M.S. programs in Applied GIScience and other fields.

The Department of Earth and Atmospheric Science will continue to attract and retain a diverse group of underrepresented and underserved students by using our urban setting to recruit minority students. Currently, there are minimal minority students majoring in the Department. We will continue to target the growing Hispanic population. Nationally, the percentage of minority students in the geosciences is substantially lower than in other STEM fields. The Department will work with the Office of Admissions and Academic Advising to recruit students in the geoscience and STEM fields. Additionally, we will work with the CAMP to attract immigrant students from underrepresented groups to major in the Earth Sciences.

The program will expand from thirteen to sixteen tenure-track faculty members. New tenure-track, as well as affiliate/part-time faculty members, will be supported with effective mentoring and clear performance expectations. Tenure-track faculty will continue to be evaluated
according to the Department Guidelines established by faculty. Successful tenure-track searches will continue to provide the Department with excellent scholars and teachers who are a good fit for the Institution and Department. The Department will also recruit excellent affiliate professors who are practitioners in their field of expertise to provide our students with real-life professional experiences as well as contribute to the General Studies curriculum. This will allow tenure-track faculty to teach lower-division courses to recruit while also teaching upper-division courses to maintain a connection with majors in their areas of expertise. The Department will work to gather meaningful assessment data to ensure outcomes are being met in General Studies courses. The Department will continue to offer appropriate courses to enhance MSU Denver’s First Year Success Program to build cohorts of students to increase retention.

**Scholarly Activities**

Faculty members will continue to be supported and encouraged to integrate their teaching and scholarship. New equipment and laboratory space have expanded our capability to support field data sampling, analysis, and computer modeling. Faculty and students will have additional opportunities to share their research experiences (both pedagogical and discipline related) at Departmental colloquia. Faculty will be encouraged to engage in disciplinary and interdisciplinary research to result in presentations at national and international conferences and eventual publication in appropriate peer-review journals. This research will help solve real-world, applied problems, particularly those in the Denver area, which supports MSU Denver’s position in Colorado. Faculty researchers will determine effective and creative methods to engage students in their research projects, which will result in more students presenting or publishing their research with faculty.

Faculty will be encouraged to apply for internal sources of funding as well as external funding at local, regional, and national agencies. It is imperative that non-internal sources of funding be sought in times of economic uncertainty. Course fees will be re-evaluated to ensure maintenance of existing infrastructure and provide seed funding for faculty developing unique research programs.

**Service**

Faculty will be encouraged to continue to support the mission of the University by serving on appropriate committees. Community service opportunities that encourage recruitment of majors and awareness of our programs will be integral. The Department will make civic engagement a pivotal feature of its service mission. The Department will promote stronger collaboration and partnerships with Denver metro stakeholders that can make use of and strengthen the Department’s Mission (e.g., K-12 schools, nonprofit organizations, government). The Department will strengthen the participation and leadership of faculty in public engagement in state, national, and global communities and in participation in key societal debates. We will find ways to engage our alumni and to implement a yearly survey to measure how our education prepared them for the job market. The Department will develop a system for connecting civic engagement to on-campus teaching and research. The Department will develop better institutional mechanisms for coordinating service-learning opportunities for faculty and students such as off-campus, non-classroom, and field-based teaching. The Department’s webpage will be updated regularly to encourage the use of the Internet and other media to foster greater visibility of our faculty’s expertise for public engagement.