IOWA STATE UNIVERSITY

College of Liberal Arts and Sciences

Ivy College of Business

Proposal for a Geology/MBA Concurrent Degree

1. Name of the programs or majors

Geology

Business Administration

1. Name of the degrees

Bachelor of Science in Geology

Master of Business Administration

3. Name of the department(s) which administer(s) the program

Department of Geological & Atmospheric Sciences, College of Liberal Arts and Sciences

Department of Business Administration, Ivy College of Business

4. Rationale for the concurrent degree program

 The American Geosciences Institute (AGI) estimates a shortage of 135,000 geoscientists by the year 2022. This estimate comes from the number of current geoscientists reaching retirement age and the growing demand for geoscientists across many fields to understand and address solutions for both climate change and the safe development of energy and natural resources. The Bureau of Labor Statistics predicts a 10% growth in geoscience jobs between 2014 and 2024 compared to 7% across all occupations (Bureau of Labor Statistics, 2015). Approximately 6,000 people earn a BS degree in a geoscience field each year (National Science Board, 2016); hence to meet future demands for geoscientists, we need a more intentional focus on attracting, supporting, and training new geology students.

A concurrent MBA degree has the potential to attract high-caliber students to the geology program. Geology majors interested in management careers in the geosciences profession will benefit from earning the MBA while still at Iowa State instead of later interrupting their careers to pursue the advanced business degree. The MBA will help prepare geology students for long-term career success in industry (e.g., oil and gas), both as a uniquely qualified employee or as an independent consultant.

5. Admission procedures and requirements

 The Geology/MBA concurrent degree is a rigorous 5-year program, and admission is selective. Candidates are expected to exhibit superior intellectual ability, strong leadership attributes, and must be highly motivated and career-focused. Significant internship/coop experience is expected.

Geology students interested in the concurrent degree program must apply to the MBA no later than July 1 the summer prior to their senior year. MBA admission is only considered for fall semester entry.

The following application materials are required:

* Application for an ISU Undergraduate Student Wishing to Pursue a Concurrent Graduate Degree
* Official transcripts
* GMAT (preferred) or GRE scores
* Letters of recommendation (2)
* Essays (2)
* Resume
* Admissions interview (by invitation only)

6. Requirements of the program

 Degree requirements for the BS in geology and the MBA are unchanged in the proposed Geology/MBA concurrent degree. The BS in geology and the MBA require a minimum of 120 credit hours and 48 credit hours respectively. A maximum of twelve approved credit hours may be applied toward both the BS and MBA degrees.

7. Expected enrollment

 2-3 students per year.

8. If not already addressed, answer the following:

a. How will the undergraduate degree plan and graduate program of study be developed?

Geology students will work with the both their undergraduate advisor and the MBA academic advisor to develop a program of study for the Geology/MBA.

b. When will the student have a major professor?

Upon entry to the Geology/MBA concurrent degree (i.e., fall semester of senior year)

c. Will graduate assistantships be provided?

Students will be eligible for a graduate assistantship; however assistantships are highly competitive and not guaranteed. The Ivy College of Business offers merit-based scholarships to exceptional concurrent MBA students in the various STEM majors.

d. Will a thesis be required?

The Master of Business Administration is a coursework-only degree.

e. Who will be responsible for the administration of the program?

Cinzia Cervato, Morrill Professor of Geological & Atmospheric Sciences, 224 Science I,

cinzia@iastate.edu, 294-7583

 Jacquelyn Rees Ulmer, Associate Dean for Professional Masters Programs, 2205 Gerdin, jrulmer@iastatate.edu, 294-6232

f. How much time is required to complete the program? Show a sample semester-by-semester plan.

The Geology/MBA concurrent degree program is designed to be completed in a minimum of five academic years or ten semesters. In the first three years, geology students take their prescribed course requirements. The final two years are comprised of the remaining geology major coursework and the MBA program requirements.

g. Will students be allowed to double count credits? If so, how many?

Twelve credits.

9. Attach memos showing approval by appropriate department and college committees, faculty, and administrators.

10. Proposal Contact

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BS in Geology/MBA Sample Study Plan (2018 Catalog)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Degrees | Semester 1 | Semester 2 | Semester 3 | Semester 4  | Semester 5 | Semester 6 | Semester 7 |  Semester 8 | Semester 9 | Semester 10 |
| BS in Geology120 credits (minimum)  | ENGL 150Crit. Thinking3 cr. | A & HChoice3 cr. | ENGL 250WOVE3 cr. | A & HChoice3 cr. | A & HChoice3 cr. | Social ScienceChoice3 cr.  | GEOL 479Surficial Process3 cr. | GeologyChoice3 cr, | ElectiveCourse3 cr. | A & HChoice3 cr. |
|  | GEOL 100 & LThe Earth4 cr. | GEOL 102 & LEarth History4 cr. | GEOL 315 & LMineralogy4 cr. | GEOL 365Petrology3 cr. | GEOL 368Sediment. Geol.4 cr. | GEOL 356Struct. Geol.4 cr. |  |  | GeologyChoice3 cr, |  |
|  | CHEM 177 & LChemistry I5 cr. | CHEM 178 & LChemistry II4 cr. | GEOL 316Optical Min.2 cr. | ElectiveCourse3 -4 cr. | ENGL 309 orENGL 3143 cr. | GeologyChoice3 cr, |  |  |  |  |
|  | MATH 165Calculus I4 cr. | MATH 166Calculus II4 cr. | PHYS 111Gen. Physics5 cr. | PHYS 112Gen. Physics5 cr. | Foreign Lang./Elective3 cr. | Foreign Lang./Elective3 cr. |  |  |  |  |
|  | GEOL 112 Earth Wind & Fire LC 1 cr. | GEOL 113 Earth Wind & Fire LC 1 cr. | Sci./Eng./MathChoice3 cr. | Sci./Eng./MathChoice3 cr. | Social ScienceChoice3 cr.  | GEOL 302 Field Studies6 cr. (summer) |  |  |  |  |
|  |  |  | LIB 160Info. Literacy1 cr. |  |  |  |  |  |  |  |
| MBA 48 credits(minimum) |  |  |  |  |  |  | BUSAD 502 Quant. Analy.3 cr | FIN 501Finance3 cr | MGMT 503Bus & Society3 cr (Elective) | MBAElective3 cr |
|  |  |  |  |  |  |  | ACCT 501Accounting3 cr | MKT 501Marketing 3 cr | MGMT 504Strategy 3 cr  | MBA Elective3 cr |
|  |  |  |  |  |  |  | ECON 532Economics 3 cr.(Soc. Sci. Choice) | SCM 501 SCM 3 cr | MBA Elective3 cr | MBA Elective3 cr |
|  |  |  |  |   |  |  | MGMT 502Org. Behavior3 cr | MIS 501MIS3 cr |  |  |
|  |  |  |  |  |  |  | BUSAD 592Prof Skills IR cr | BUSAD 594Prof Skills IIR cr |  |  |
| BS Geology 120 cr.  | 17 cr. | 16 cr. | 18 cr. | 17 cr. | 16 cr. | 19 cr. | 6 cr. | 3 cr. | 9 cr. | 3 cr. |
| MBA 48 cr. |  |  |  |  |  |  | 12 cr. | 15 cr. | 12 cr. | 9 cr. |
| Shared Credits (12) |  |  |  |  |  |  | (3 cr.) | (3 cr.) | (6 cr.) |  |
| Total 160 cr. (min.) | 17 cr. | 16 cr. | 18 cr. | 17 cr. | 16 cr. | 19 cr. | 15 cr. | 15 cr. | 15 cr. | 12 cr. |

*Notes:*

Twelve acceptable credits may be applied to both the BS in Geology and the MBA. The twelve “shared” elective credits ECON 532 (Social Science Choice, MGMT 503 Elective Course and two Geology Choice courses (6 credits) approved for the Geology/MBA concurrent degree program including, but not limited, to GEOL 324, GEOL 444, GEOL 452, GEOL 457, GEOL 488, and GEOL 490 (depending upon topic).

ECON 101 is recommended, but not required, as a Social Sciences choice course as a prerequisite to ECON 532 in the MBA program. Instructor permission to waive ECON 101 prerequisite.

Twelve credits of MBA electives must be 500 level courses from the Ivy College of Business.