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DOC 2020-02 Proposal to Rename the Department of Geology to the Department of Geology and Environmental Geosciences

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PROPOSAL TO THE ACADEMIC SENATE

TITLE: Proposal to Rename the Department of Geology to the Department of Geology and Environmental Geosciences

SUBMITTED BY: Department of Geology

DATE: April 1, 2020

ACTION: Legislative Authority

REFERENCE: DOC 2019-03 Actions Pertaining to Degree Programs and Academic Departments (Revised)

APPROVED: April 3, 2020

RATIONALE:

The Department of Geology formally propose to change its name to the Department of Geology and Environmental Geosciences.

Geology is a scientific discipline that deals with the Earth's physical structure and chemical composition, its history, and processes that shape the planet. Traditionally, geologists study the rocks, map the mountains and discover fossils to explain the landscape, discover the workings of the continents and the deep Earth, and put together the history of the Earth's physical environment and biological evolution. In practical applications, geologists also find groundwater resources, energy resources, and mineral deposits of great economic values.

Recent decades have seen increasing awareness that many challenges we face as a society, particularly significant environmental problems, require collaborative effort that transcends traditional disciplinary boundaries. As a result, geology departments across the country at both small and large universities have expanded their scope and embrace a wider range of fields of inquiry related to the planet Earth, such as climatology, hydrology, glaciology and oceanography. To capture the changing nature of the field, many departments have also changed their names from the traditional "geology" to "**Earth science**" or "**geoscience**" or some combination of environment and geology to show the breadth of their strength. Some recent examples near us include Miami University and Indiana University. Today, an Earth science or geoscience degree encompasses a wider set of subjects and a more global perspective than a traditional geology degree a few decades back. To that end, it studies all of Earth's dynamic processes in the geosphere, atmosphere, hydrosphere and cryosphere in order to better prepare students to tackle the 21st century society's pressing geological and environmental challenges.

This change is also happening in the Geology Department at UD. The most direct and obvious evidence of such changes lies in the faculty hired in the department. Below is a list of all full-time faculty members with their area of expertise in the order of their time of hire:

- Michael Sandy (1987): paleontology, sedimentology and stratigraphy
- Don Pair (1991): glacial geology, geomorphology
- Andrea Koziol (1993): mineralogy
- Allen McGrew (1995): structural geology, tectonics
- Daniel Goldman (1997): paleobiology, quantitative biostratigraphy, sedimentology and stratigraphy
- Shuang-Ye Wu (2004): climatology, climate change, GIS
- Umesh Haritashya (2008): glaciology, climate change, hydrology, remote sensing
- Zelalem Bedaso (2013): environmental geochemistry, paleoclimate and paleo-environment, isotope hydrology.
- Andrew Rettig (2019): geography, environmental sensor network

It can be seen from this list that the Geology department has followed the trend of incorporating environmental aspects of geosciences that go beyond those traditionally associated with geology. Faculty hired prior to 2000 are mostly traditional geologists, compared to the environmental geoscience and global change focused faculty hiring post-2000. This shift is also reflected in faculty research, course offerings and student mentoring. Furthermore, here at UD, we have a long history of graduating students who have become leaders in the various geological and environmental industries. In recent years most of our students have gone on to join the industry or graduate schools dealing with the environmental issues. Their feedback suggests that it would be easier for them to present their credentials if they can say that they have graduated from an Environmental Geosciences department as compared to the traditional geology department. Therefore, we believe that this department name change is not only appropriate but necessary to truly capture the mission of the department and the associated breadth of the research and teaching interests, as well as to help students navigate the changing job market. The proposed Department of Geology and Environmental Geosciences is a common name adopted in US universities. The exact same name is used in the North Illinois University, Bucknell University, College of Charleston, and a similar name is used in the Miami University at Oxford, Ohio (Department of Geology and Environmental Earth Sciences). The department will offer the following programs:

- Bachelor of Science (B. S.) in Geology (GEO)
- Bachelor of Science (B. S.) in Environmental Geosciences (EVG)
- Minor in Geosciences (GEO)

No major changes in the curriculum are required for this name change, as the former B. S. program in environmental geology already encompasses the broad range of classes that can be characterized as environmental geosciences. Minor revisions are being proposed to better align the curriculum to the degree programs.

We believe this name change will also help attract students with interests in environmental sciences, and potentially increase our majors' enrollment. Impacts on other departments

and programs at UD will be minimal and potentially beneficial by re-focusing the core mission and strengths of the department to better align with and closely support allied programs of environmental biology (EVB) and the newly developed Sustainability program (SEE). Science-minded SEE majors often consider double-majoring in either EVG or EVB. Therefore, the change in department name could potentially help the SEE program and our programs at the same time to attract more students by effectively coordinating our offerings. Since most EVB students enter that program with Biology in mind, this change should have little impact on that department. From our contact with potential students, we found that there exist a body of students who are environmentally inclined but do not wish to pursue biology. They are looking for a non-biology tract of the environmental offering. With the name change, we hope to attract the attention of and provide an opportunity for this group of students who may otherwise go to another university. Overall, we believe the impact on EVB, SEE, or any other department will be minimal and in the long run even beneficial by realigning the geoscience mission and curricula in ways likely to better support the needs of these majors. We emphasize that this is not a “zero-sum” game: by broadening and strengthening the environmental focus at the University we expect all environmental programs at the University to benefit by better positioning the University of Dayton to attract environmentally-oriented students.

This proposal is supported by the science departments and the SEE program.

Supplementary Materials: Letters of Support

Karolyn Hansen <khansen1@udayton.edu> Wed, Dec 4, 2019, 2:29 PM

to me

Good afternoon Shuang-Ye,

I write to let you know that our tenure-line Biology faculty agree with your proposal to change the name of the Geology Department to Geology and Environmental Geosciences Department.

We look forward to working with you as partners in our environmental offerings for the EVB and EVG curricula.

Best -

Karolyn

*Karolyn Mueller Hansen, Ph.D.
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Mehdi Zargham <mzargham1@udayton.edu> Fri, Nov 22, 2019, 11:20 AM

to **Wiebke, Karolyn, David, Garry, me, John**

Dear Shuang-Ye

The Computer Science Department does not have any objection to this name change and in support of your proposal.

Best wishes

Mehdi

--

Mehdi R. Zargham
Professor and Chair
Department of Computer Science
University of Dayton

Wiebke Diestelkamp <wdiestelkamp1@udayton.edu> Nov 22, 2019, 2:22 PM

to me, Karolyn, David, Mehdi, Garry, John

Shuang-Ye,

The Department of Mathematics has no concerns regarding the name change.

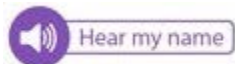
Wiebke

Wiebke S. Diestelkamp, Ph.D.
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Phone: (937) 229-2511

Pronouns: She/her/hers



David Johnson <djohnson1@udayton.edu> Fri, Nov 22, 2019, 11:27 AM

to me

Shuang-Ye,

The Chemistry Department discussed the name change for your department. There were no objections raised, and the faculty were in agreement that the addition of Environmental Geosciences might be beneficial.

The Chemistry Department therefor endorses the change in name.

Dave

Rebecca Potter <rpotter1@udayton.edu> Fri, Nov 22, 2019, 11:06 AM

to me

Dear Shuang-Ye,

I support the change of the Department's name from Geology to Geology and Environmental Geosciences. The change seems to better describe the Department's work and curriculum. I have no concerns about the name change, and believe it will help students realize that the Geology Department offers a degree based on environmental science.

Best regards,

Rebecca

Rebecca C. Potter, PhD
Sustainability Program Director
Associate Professor of English
The University of Dayton
Dayton, Ohio 45469

Contact: The Hanley Sustainability Institute.
ph. 937-229-3295, or 937-229-1297

John Erdei <jerdei1@udayton.edu> Fri, Nov 22, 2019, 1:06 PM

to me, Wiebke, Karolyn, David, Mehdi, Garry

Shaung-Ye

I have not gotten any negative feedback on the name change from the Department of Physics. I would move forward.

John