

# New Interdisciplinary Program Proposal Form

**Submitted on 02/21/2023 by Tiglet Besara ([TigletBesara@MissouriState.edu](mailto:TigletBesara@MissouriState.edu)).**

This special form is to be used for internal Missouri State approval of a new Interdisciplinary program involving two or more academic departments/schools including graduate programs, undergraduate majors (comprehensive or non-comprehensive), minors, graduate certificates, undergraduate certificates.

New graduate programs, new undergraduate majors, and certificate programs involving more than 18 credit hours require approval by the CBHE as well as approval through the Missouri State curricular process. CBHE applications for such programs are processed through the Office of Institutional Research. All proposals for new programs requiring CBHE approval should progress through the Missouri State curricular process accompanied by a draft of the required CBHE documentation.

**Only select departments with at least 9 hours or at least 30% of total program hours.**

**Sponsoring Department (1): (responsible for administration and budget)**

Physics, Astronomy, & Mat Sci

**Sponsoring Department (2):**

Geography, Geology, & Planning

**Sponsoring Department (3): (if applicable)**

**Sponsoring Department (4): (if applicable)**

**Proposed Program Title:**

Astrogeology Certificate

**Choose One:**

- Major (Non-Comprehensive/Graduate Program)  Minor  Graduate Certificate

Comprehensive Major Undergraduate Certificate Master's Degree**Select Degree Type (or Select Graduate Certificate or Undergraduate Certificate):**

UGCT - Undergraduate Certificate

**General Education Courses Required:**

AST 113(3) or AST 115(4)

GLG 110(4) or GLG 171(3)

Total Hours: 6-8

**General Education Courses Recommended:**

None

Total Hours: 0

**Requirements (including Admission) and Limitations for Specific Degree/Program:**

1. AST 113(3) or AST 115(4)
2. GLG 110(4) or GLG 171(3)
3. AST 313(3)
4. GLG 314(3) or GLG 332(3) or GLG 590(3)
5. All candidates must satisfy the General University Certificate Requirements.

Total Hours: 12-14

**Prerequisites for Required Courses:**

For AST 313: AST 113 or AST 114 or AST 115; and MTH 137 or MTH 138 or above.

For GLG 314: GLG 110 or both GLG 171 and GLG 172.

For GLG 332: GLG 110 or both GLG 171 and GLG 172; and CHM 160; and MTH 136 or higher.

For GLG 590: either PHY 124 or PHY 204; and either MTH 280 or MTH 288.

**Recommended Electives:**

None

Total Hours: 0

**Limitations on Electives:**

None

Please attach the following documents: (only one file may be attached for each requirement; accepts file types of PDF, DOC or DOCX)

1. Statement of Rationale: *Attached* [View Attachment](#)
2. Estimated costs for first five years: *Attached* [View Attachment](#)
3. Complete catalog description (including new courses and course changes pending approval): *Attached* [View Attachment](#)
4. Complete a new program application for the Missouri Department of Higher Education and Workforce Development (MDHEWD).

(NOTE: New Minors do not require this form. Certificates with 18 hours or less do not require this form. Originators may skip this step entirely for these types of new programs.)

- A. Use the templates to complete an MDHEWD application.  
[New Undergraduate Major \(or certificate with more than 18 hours\)](#) | [New Graduate Program \(Master's Specialist, or certificate with more than 18 hours\)](#) For new Doctoral Program contact Associate Provost Julie Masterson for MDHEWD forms and process.
  - B. Upload and attach the completed MDHEWD application. *Not Attached*
- \* Contact Associate Provost Julie Masterson for assistance completing MDHEWD forms.  
 \*\* The Office of Institutional Research (IR) will submit these application forms to the state after the new program has been fully approved through the curricular process.

**What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)**

02/20/2023

**Current Status:**

College Council Review

**Proposal Progress:**

02/21/2023 - Submitted by Department Head (Toby Dogwiler)

03/01/2023 - Submitted by Department Head (Robert Mayanovic)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

Copy As New Proposal

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Last Updated: 03/15/2023 21:44 [Contact Information](#)

Only in the last decade have we realized that >90% of all stars host planets (exoplanets) and that planets outnumber stars. However detection methods have relied upon detecting the planet's influence on the star rather than directly detecting the planet. As such, there is essentially no direct evidence for exoplanet structure, composition, or environment (atmosphere-stellar radiation interaction). However, tens of potentially habitable rocky planets have already been discovered, meaning there are tens of millions of such planets within our Milky Way galaxy.

None

## **Astrogeology Certificate**

This interdisciplinary certificate provides students the opportunity to explore geologic conditions which may exist on planets around other stars (exoplanets). As it has recently been discovered that most stars host planets, the environment and origin of those planets (astrophysics) and the processes within (geology) are at the forefront of scientific exploration. Students who complete this certificate will be prepared for a variety of opportunities in geology, astronomy, and the combined work on exoplanets.

### **Program Requirements (13-14 hours):**

1. AST 113(3) or AST 115(4)
2. GLG 110(4) or GLG 171(3)
3. AST 313(3)
4. GLG 314(3) or GLG 332(3) or GLG 590(3)
5. All candidates must satisfy the General University Certificate Requirements.