<table>
<thead>
<tr>
<th>Course:</th>
<th>ASTR 339 Cooperative Education I</th>
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</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Earth and Space Sciences</td>
</tr>
<tr>
<td>College:</td>
<td>Science</td>
</tr>
</tbody>
</table>

**Signatures**

- **Originator (Print and Sign)**: Eric Jerde
- **Date**: 2/17/17

- **Departmental Curriculum Committee Approval (Print and Sign)**: Thomas Pannuti
- **Date**: 2/17/17

- **Department Chair’s Approval (Print and Sign)**: Eric Jerde
- **Date**: 2/22/17

- **College Curriculum Committee Approval (Print and Sign)**: Dirlan Griffin
- **Date**: 2017-Feb 24

- **Dean’s Approval (Print and Sign)**: Wayne Miller
- **Date**: 2/27/2017

- **Information Technology Resources are Available (Print and Sign)**: Amy Moore
- **Date**: 3/2/17

- **Teacher Ed. Council Approval (if appropriate) (Print and Sign)**: N/A
- **Date**: N/A

- **Undergraduate Curriculum Committee Action (Print and Sign)**: Laurie Couch
- **Date**: 3/31/17

- **Vice President for Academic Affairs (Print and Sign)**: 4-6-17
COURSE
New Course or Major Revision to Existing Course

This outline is to be used when a new course is proposed or when a major change is proposed to an existing course. If you are preparing a new experimental course/workshop proposal, please use the New Experimental Course/Workshop form. This outline is not to be used for General Education Courses. Refer to the General Education web site.

I. COURSE INFORMATION
- The course title can only be 30 characters.
- The following are definitions of terms related to courses:
  - Petition required – requires permission from the Department Chair to enroll in a section of the course.
  - Equated – two different courses with the same content at the same level with different prefixes.
  - Restricted – program admission is required and must have Department Chair approval.
  - Formula – (3-0-3) = instruction hours – lab hours – credit hours

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<td>ASTR 339</td>
<td>ASTR</td>
<td>339</td>
<td>Cooperative Education I</td>
<td>variable</td>
<td>on demand</td>
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Approved major or program(s) in which the course will be offered.
Physics Area, Astrophysics Track

Course Status: ☐ Required ☑ Elective

Course Description: Course description exactly as it will appear in the catalog and as it appears on the sample syllabus. Include pre-requisites/co-requisites, petition requirements, course equations, restrictions and term(s) offered. Example: XYZ 288. Guidelines for a New Course. (3-0-3) Fall and Spring; petition required. A study of the impact of technology on individuals, society, and the environment. Equated with RUL 288.

ASTR 339. Cooperative Education I. (1-6 hours); petition required. Participation in supervised work experience in an outside organization.

Please include a sample syllabus (must start on new page). All elements on the syllabus checklist must be included on the sample syllabus (syllabus checklist attached).
- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
- The teacher education syllabi must contain these elements: the theme for MSU’s Teacher Education Program; CAEP* themes; any additional EPSB themes; and program appropriate Kentucky Teacher Standards (www.kyepsb.net/teacherprep/standards.asp). Further information and models are provided at http://www.moreheadstate.edu/education/.

*The College of Education (CoE) is NCATE accredited. NCATE and TEAC have combined to form CAEP, a new national accrediting organization. Educator Preparation Programs, including the CoE at MSU are in the process of transitioning from NCATE to CAEP and as such, we are working to transition to align our programs with CAEP standards and requirements in anticipation of our next accreditation visit in 2018, at which time we will fall fully under CAEP standards and guidelines. For more information on CAEP and the new accreditation process, please see www.caepnet.org.

List departments and programs that could be impacted by this proposal.
None

List the individuals notified by the proposing department chair and define the method of contact (e-mail, phone conversation, etc).
N/A

II. PURPOSE, GOALS AND OBJECTIVES
**A. State the purpose of the course** (for an existing course that is being revised, indicate how the purpose will change).

To provide the opportunity for students to gain academic credit for work done during an assignment to an outside organization (i.e., Summer internship, professional work - generally non-paid)

**B. For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.**

The objectives are as follows:
1) Integrate knowledge and skills obtained through the Physics Area, Astrophysics Track coursework in a setting outside the university.
2) Strengthen research and analytical skills, and use the appropriate terminology in research and writing.
3) Convey findings and conclusions to an audience that may not include specialists in your discipline.

Work outside the university (e.g., “service-learning”) is recognized as a major benefit toward educating students to be successful in a global environment and in fostering collaboration.

**C. For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing?**

☐ Yes ☐ No

If so, how?

**D. Define how the course helps students to achieve learning objectives required for the program** (i.e. what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).

By its very nature, the outside assignments students obtain will be for hands-on work to practice and integrate the principles and content of the program courses. The work products will serve as a means to evaluate the students.

**E. Describe how achievement of those learning objectives will be assessed.**

Upon completion of the outside assignment, the work products (written results) will be evaluated by faculty and staff within the Department of Earth and Space Sciences and the Space Science Center, and the student supervisor will be contacted to discuss the student’s performance.

### III. NEED AND JUSTIFICATION

**A. List any existing course(s) that will be replaced by the proposed/revised course.**

None

**B. Offer specific reasons for the development/revision of this course.**

Currently, there is no mechanism within the Astrophysics program for obtaining academic credit for outside efforts, as there is in other programs (such as Earth Systems Science.)

**C. Justify the proposed instructional level (100-600) or instructional level change.**

Work assignments such as this are junior- and senior-level and require extensive knowledge and abilities. Students do not generally receive them until their final two years.

**D. List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.**

No duplication. There are similar courses in terms of intent, but the actual work performed to earn the credit is unique.

### IV. PERSONNEL

**A. List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.**

Eric Jerde, Ph.D., Associate Professor
Thomas Pannuti, Ph.D., Associate Professor
Dirk Grupe, Ph.D., Assistant Professor

**B. Identify external adjunct faculty, if appropriate.**

N/A

### V. ADDITIONAL INFORMATION
<table>
<thead>
<tr>
<th>A. Desired implementation date for the course.</th>
<th>Fall 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Desired section size and anticipated enrollment.</td>
<td>Variable section size (petition required), and probably 1 student per year</td>
</tr>
<tr>
<td>C. Method of instruction (online, lecture, laboratory, individualized, etc.).</td>
<td>Individualized experiences outside the university setting.</td>
</tr>
<tr>
<td>D. Additional facilities and special equipment needs for this course, if any.</td>
<td>None</td>
</tr>
<tr>
<td>E. Use of library resources</td>
<td></td>
</tr>
<tr>
<td>- Does the course require library resources to support specific class assignments or supplemental reading?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>- Do the library services and resources presently available meet student needs for the course?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>If not, what library acquisitions are being proposed to meet essential needs?</td>
<td></td>
</tr>
<tr>
<td>F. Use of technology</td>
<td></td>
</tr>
<tr>
<td>1. List software to be used and its estimated cost. If there is intent to utilize the software in a lab, include the estimated cost of the server based license for the software. (IT does not install individual packages in labs, only server based versions).</td>
<td>N/A</td>
</tr>
<tr>
<td>2. List of the type of hardware to be utilized. Please note that the Director of Information Technology should be notified when the course proposal is being developed. Early notification will allow IT an opportunity to provide quality information that can be included in the proposal request form.</td>
<td>N/A</td>
</tr>
<tr>
<td>G. Does this course involve the use of live animals?</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>If so, include the approval form from the associated Institutional Animal Care and Use Committee (IACUC).</td>
<td></td>
</tr>
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</table>
Morehead State University  
College of Science  
Department of Earth & Space Sciences

ASTR 339 – Cooperative Education I  
Fall 2017

Instructor: Dr. Thomas Pannuti  
Office: Space Sci Center 212-E  
Office Hours: M-F 2 – 4 pm  
Office Phone: 783-9591  
Main Office: 783-2381  
e-mail: t.pannuti@moreheadstate.edu

Text: None

Course Description: ASTR 339. Cooperative Education I. (1-6 hours); petition required. Participation in supervised work experience in an outside organization.

Grading: The final grade will be based on three things:

- Suitable amount of effort for the credit attempted (50%)
- Production of written results (i.e., “Term Paper”) (30%)
- An interview with the student’s advisor (30%)

Grade Scale: Grading is based on scoring as above for the course.

A >90%; B = 80-89%; C = 70-79%; D = 60-69%; E <60%

Objectives:

1) Integrate knowledge and skills obtained through the Space Science Area of Concentration coursework in a setting outside the university.
2) Strengthen your research and analytical skills, and use the appropriate terminology in research and writing.
3) Convey your findings and conclusions to an audience that may not include specialists in your discipline.

-- Practical aspects of all three of these will be assessed with examination of the finished products and the interview with the student’s supervisor.

Attendance: Attendance will not be taken specifically, as this course is for work with some other entity. However, the nature of attendance, attention to detail, etc., will be assessed through discussions with the internship supervisor.

Special Needs: In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/
Campus Safety Statement: Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at http://www.moreheadstate.edu/emergency

Academic honesty: Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at http://www.morehead-st.edu/units/studentlife/handbook/academicdishonesty.html. For example: copying information from the Internet is plagiarism if appropriate credit is not given.

COURSE CALENDAR

This course does not have a set schedule, as it is based on an individual internship. However, once the internship has been arranged, a specific schedule and expected work products will be provided to the student.
Sharri Lynn Jones

From: Eric Jerde
Sent: Monday, March 27, 2017 2:24 PM
To: Sharri Lynn Jones
Subject: Re: Clarification to SSE and ASTR proposals

Sharri,

1) Call SSE 199 "Special Topics".
2) They are NOT getting credit for SSE 120. That is why we’re doing this. Based on the high school content, students would not succeed in the SSE 122 course for which SSE 120 is a pre-req, so we have not given credit for 120 as it would imply they are ready for 122.
3) The intent is that "work products" of some sort are produced. Our thoughts are that while "shadowing" internships might be valuable, we are not going to provide credit for them unless some form of work is done.
4) Correct. It should be "Physics Area, Astrophysics Track".

Thanks!

Eric Jerde, Interim Chair
Dept of Earth & Space Sciences

From: Sharri Lynn Jones
Sent: Monday, March 27, 2017 10:58:19 AM
To: Eric Jerde
Cc: Laurie L. Couch
Subject: Clarification to SSE and ASTR proposals

Eric,

I have had the following questions related to your proposals. Would you please respond as soon as possible so that I can get the committee member the clarification in time to vote. I apologize for the need for a quick turn-around.

- For SSE 199, I have a couple of items. First there needs to be some consistency as to the name they want this course to have. On most of the proposal itself, it is listed as “Selected Topics” though in other spots and on the syllabus it listed as “Special Topics”. – Which do you want? I can make these changes.

" Also, on part III.B. I have a question for the originator about the high school version of SSE 120: Are these students getting credit for 120 and if not, why not just have them take SSE 120 and remove that reasoning from the justification on this course?

- For SSE 339, SSE 439, and ASTR 339 are these students always gaining internships/work experiences which result in “work products” which can be evaluated by the faculty/staff in Earth & Space Sciences or is there another possible mechanism on which they could be evaluated?

- For ASTR 339 in part II.B. on #1 they discuss the “Space Science Area of Concentration” when I believe they meant to say “Astrophysics” as is discussed in part III.B.
### Course Details

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<td>Earth and Space Sciences</td>
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<tr>
<td>College:</td>
<td>Science</td>
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</table>

### Signatures

**Originator (Print and Sign)**

| ERIC JERDE | 2/17/17 |

**Departmental Curriculum Committee Approval (Print and Sign)**

| Thomas Panuti | 2/17/17 |

**Department Chair’s Approval (Print and Sign)**

| ERIC JERDE | 2/22/17 |

**College Curriculum Committee Approval (Print and Sign)**

| DIRK GRUE | 2017-12-24 |

**Dean’s Approval (Print and Sign)**

| Wy Call | 2/27/2017 |

**Information Technology Resources are Available (Print and Sign)**

| Amy Moore | 3/21/17 |

**Teacher Ed. Council Approval (if appropriate) (Print and Sign)**

| N/A | 3/31/17 |

**Undergraduate Curriculum Committee Action (Print and Sign)**

| Laurie Couch | 3/31/17 |

**Vice President for Academic Affairs (Print and Sign)**

| N/A | 4-6-17 |
COURSE
New Course or Major Revision to Existing Course

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  • Formula – (3-0-3) = instruction hours – lab hours – credit hours

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Approved major or program(s) in which the course will be offered.
Physics Area, Astrophysics Track

Course Status: □ Required ☒ Elective

Course Description
Course description exactly as it will appear in the catalog and as it appears on the sample syllabus. Include pre-requisites/co-requisites, petition requirements, course equations, restrictions and term(s) offered. Example: XYZ 288. Guidelines for a New Course. (3-0-3) Fall and Spring; petition required.

ASTR 399. Special Topics. (1-6 hours).

Please include a sample syllabus (must start on new page). All elements on the syllabus checklist must be included on the sample syllabus (syllabus checklist attached).

- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
- The teacher education syllabi must contain these elements: the theme for MSU’s Teacher Education Program; CAEP* themes; any additional EPSB themes; and program appropriate Kentucky Teacher Standards (www.kyepsb.net/teacherprep/standards.asp). Further information and models are provided at http://www.moreheadstate.edu/education/

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List departments and programs that could be impacted by this proposal.
None

List the individuals notified by the proposing department chair and define the method of contact (e-mail, phone conversation, etc).
N/A

II. PURPOSE, GOALS AND OBJECTIVES
A. State the purpose of the course (for an existing course that is being revised, indicate how the purpose
To provide the opportunity to experiment with new course topics prior to a formal proposal, or to offer “one-off” special courses.

**B. For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.**

This course permits flexibility to “foster innovation”, part of the mission statement.

**C. For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing?**

☐ Yes ☐ No

If so, how?

**D. Define how the course helps students to achieve learning objectives required for the program (i.e. what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).**

The Special Topics courses permit the offering of topics that are timely in the discipline, providing the opportunity to achieve new competencies, or to take advantage of special circumstances (i.e., visiting scholars) to achieve current competencies.

**E. Describe how achievement of those learning objectives will be assessed.**

Part of the development of any courses will utilize the typical methods of quizzes, homework, and “laboratory” activities.

### III. NEED AND JUSTIFICATION

**A. List any existing course(s) that will be replaced by the proposed/revised course.**

None

**B. Offer specific reasons for the development/revision of this course.**

Currently, ASTR 299 exists, but it is desirable to have an upper-level version of the course to offer upper-level content when desired.

**C. Justify the proposed instructional level (100-600) or instructional level change.**

Currently, ASTR 299 exists, but it is desirable to have an upper-level version of the course to offer upper-level content when desired. This would facilitate the experimentation with courses that would be intended to be upper-level.

**D. List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.**

No duplication. There are similar courses in terms of intent, but the actual work performed for credit is unique.

### IV. PERSONNEL

**A. List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.**

- Eric Jerde, Ph.D., Associate Professor
- Thomas Pannuti, Ph.D., Associate Professor
- Dirk Grupe, Ph.D., Assistant Professor

**B. Identify external adjunct faculty, if appropriate.**

None identified. It is possible that ASTR 399 might be created for outside individuals with special expertise.

### V. ADDITIONAL INFORMATION

**A. Desired implementation date for the course.**

Fall 2017

**B. Desired section size and anticipated enrollment.**

Cap would be 30. Enrollment likely to be 5-10.

**C. Method of instruction (online, lecture, laboratory, individualized, etc.).**

Lecture and possibly a laboratory

**D. Additional facilities and special equipment needs for this course, if any.**

None
### E. Use of library resources

- Does the course require library resources to support specific class assignments or supplemental reading?  
  □ Yes  ☒ No

- Do the library services and resources presently available meet student needs for the course?  
  ☒ Yes  □ No

If not, what library acquisitions are being proposed to meet essential needs?

### F. Use of technology

1. List software to be used and its estimated cost. If there is intent to utilize the software in a lab, include the estimated cost of the server based license for the software. (IT does not install individual packages in labs, only server based versions).
   N/A

2. List of the type of hardware to be utilized. Please note that the Director of Information Technology should be notified when the course proposal is being developed. Early notification will allow IT an opportunity to provide quality information that can be included in the proposal request form.
   N/A

### G. Does this course involve the use of live animals?  
□ Yes  ☒ No

If so, include the approval form from the associated Institutional Animal Care and Use Committee (IACUC).
Instructor: Dr. Thomas Pannuti  
Office: Space Sci Center 212-E  
Office Hours: M-F 2–4 pm  
Office Phone: 783-9591  
Main Office: 783-2381  
e-mail: t.pannuti@moreheadstate.edu

Course Description: ASTR 399. Special Topics. (1-6 hours).

Grading: Since ASTR 399 does not have a specific content, but is designed for “experimental” courses, those with special content to be offered only once, or to take advantage of special situations. The final grade will be based on course-specific activities, but will generally consist of homework, possible lab exercises, and periodic exams.

Grade Scale: Grading is based on scoring as above for the course.

A >90%; B = 80-89%; C = 70-79%; D = 60-69%; E <60%

Objectives: See the information under “grading”. The objectives will vary, dependent on course concepts.

Attendance: Notice of an absence must be given in advance if possible or, if not possible, as soon as the student returns to school. Any arrangements for turning in late work must be approved by the instructor before such work will be accepted.

Special Needs: In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/

Campus Safety Statement: Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at http://www.moreheadstate.edu/emergency

Academic honesty: Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at http://www.morehead-st.edu/units/studentlife/handbook/academichonesty.html. For example: copying information from the Internet is plagiarism if appropriate credit is not given.
COURSE CALENDAR

This course does not have a specific schedule, as it is based on an individual circumstances for offering the course. However, once the course is offered, a specific schedule, expectations, and grading details will be provided to the student.
### Course: ASTR 476 Special Problems

**Department:** Earth and Space Sciences  
**College:** Science

#### Signatures

<table>
<thead>
<tr>
<th>Role</th>
<th>Signature</th>
<th>Date</th>
<th>Approved/Disapproved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Originator (Print and Sign)</td>
<td></td>
<td>2/17/17</td>
<td></td>
</tr>
<tr>
<td>Departmental Curriculum Committee</td>
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<td>2/17/17</td>
<td></td>
</tr>
<tr>
<td>Department Chair's Approval (Print and Sign)</td>
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<td>2/22/17</td>
<td></td>
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<tr>
<td>College Curriculum Committee Approval (Print and Sign)</td>
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<td>2/27/2017</td>
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<td>Dean's Approval (Print and Sign)</td>
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<td>3/10/2017</td>
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<td>Vice President for Academic Affairs (Print and Sign)</td>
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### I. COURSE INFORMATION

- The course title can only be 30 characters.
- The following are definitions of terms related to courses:
  - **Petition required** — requires permission from the Department Chair to enroll in a section of the course.
  - **Equated** — two different courses with the same content at the same level with different prefixes.
  - **Restricted** — program admission is required and must have Department Chair approval.
  - **Formula** — (3-0-3) = instruction hours - lab hours - credit hours

<table>
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<tr>
<th>Course Name</th>
<th>Course prefix (Example: ENG)</th>
<th>Number (Example: 100)</th>
<th>Title (Example: Writing I)</th>
<th>Formula (Example: 3-0-3)</th>
<th>Intended Terms Offered (Example: Fall/Spring)</th>
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<tr>
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<td>476</td>
<td>Special Problems</td>
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<td>variable</td>
<td>on demand</td>
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**Approved major or program(s) in which the course will be offered.**

Physics Area, Astrophysics Track

**Course Status:**

- [ ] Required
- [x] Elective

**Course Description**

Course description *exactly as it will appear in the catalog and as it appears on the sample syllabus.* Include pre-requisites/co-requisites, petition requirements, course equations, restrictions and term(s) offered. Example: XYZ 288. Guidelines for a New Course. (3-0-3) Fall and Spring; petition required. A study of the impact of technology on individuals, society, and the environment. Equated with RUL 288.

ASTR 476. Special Problems. (1-6 hours): petition required. Participation in supervised work experience within the Space Science Center.

**Please include a sample syllabus** (must start on new page). *All elements on the syllabus checklist must be included on the sample syllabus* (syllabus checklist attached).

- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
- The teacher education syllabi must contain these elements: the theme for MSU’s Teacher Education Program; CAEP* themes; any additional EPSB themes; and program appropriate Kentucky Teacher Standards (www.kyepsb.net/teacherprep/standards.asp). Further information and models are provided at http://www.moreheadstate.edu/education/.
  
  *The College of Education (CoE) is NCATE accredited. NCATE and TEAC have combined to form CAEP, a new national accrediting organization. Educator Preparation Programs, including the CoE at MSU are in the process of transitioning from NCATE to CAEP and as such, we are working to transition to align our programs with CAEP standards and requirements in anticipation of our next accreditation visit in 2018, at which time we will fall fully under CAEP standards and guidelines. For more information on CAEP and the new accreditation process, please see www.caepnet.org.

**List departments and programs that could be impacted by this proposal.**

None

**List the individuals notified by the proposing department chair and define the method of contact (e-mail, phone conversation, etc.).**

N/A

### II. PURPOSE, GOALS AND OBJECTIVES
A. **State the purpose of the course** (for an existing course that is being revised, indicate how the purpose will change).

To provide the opportunity for students to gain academic credit for specialized work done within the Space Science Center (i.e., research in astrophysics).

B. **For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.**

“Active learning,” or the direct application of concepts, is recognized as a major benefit toward educating students to be successful in a global environment and in fostering collaboration.

C. **For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing?** □ Yes □ No

If so, how?

D. **Define how the course helps students to achieve learning objectives required for the program** (i.e., what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).

By its very nature, the projects these students undertake will be for hands-on work to practice and integrate the principles and content of the program courses.

E. **Describe how achievement of those learning objectives will be assessed.**

During and upon completion of the project, the work products will be evaluated by faculty and staff within the Department of Earth and Space Sciences and the Space Science Center.

### III. NEED AND JUSTIFICATION

A. **List any existing course(s) that will be replaced by the proposed/revised course.**

None

B. **Offer specific reasons for the development/revision of this course.**

Currently, there is no mechanism within the Astrophysics program for undergraduates obtaining academic credit for special projects, as there is in other programs (e.g., ESS 476, SSE 476).

C. **Justify the proposed instructional level (100-600) or instructional level change.**

This course would be for advanced undergraduate work projects and requires extensive knowledge and abilities.

D. **List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.**

No duplication. There are similar courses in terms of intent, but the actual work performed to earn the credit is unique.

### IV. PERSONNEL

A. **List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.**

- Eric Jerde, Ph.D., Associate Professor
- Thomas Pannuti, Ph.D., Associate Professor
- Dirk Grupe, Ph.D., Assistant Professor
- Jennifer Birriel, Ph.D., Professor

B. **Identify external adjunct faculty, if appropriate.**

None identified. It is possible that ASTR 476 might be created for outside individuals with special skills or expertise.

### V. ADDITIONAL INFORMATION

A. **Desired implementation date for the course.**

Fall 2017

B. **Desired section size and anticipated enrollment.**

Variable section size (petition required for enrollment), and possibly 1-2 students each year.

C. **Method of instruction (online, lecture, laboratory, individualized, etc.).**

Individualized experiences within the university setting.
### E. Use of library resources

- **Does the course require library resources to support specific class assignments or supplemental reading?**
  - Yes [ ]
  - No [X]  

- **Do the library services and resources presently available meet student needs for the course?**
  - Yes [X]
  - No [ ]

  **If not, what library acquisitions are being proposed to meet essential needs?**

### F. Use of technology

1. **List software to be used and its estimated cost.** If there is intent to utilize the software in a lab, **include the estimated cost of the server based license for the software.** (IT does not install individual packages in labs, only server based versions).
   - N/A

2. **List of the type of hardware to be utilized.** Please note that the Director of Information Technology should be notified when the course proposal is being developed. Early notification will allow IT an opportunity to provide quality information that can be included in the proposal request form.
   - N/A

### G. Does this course involve the use of live animals?

- Yes [ ]
- No [X]

  **If so, include the approval form from the associated Institutional Animal Care and Use Committee (IACUC).**
Morehead State University
College of Science
Department of Earth & Space Sciences

ASTR 476 – Special Problems
Fall 2017

Instructor: Dr. Thomas Pannuti
Office: Space Sci Center 212-E
Office Hours: M-F 2 – 4 pm
Office Phone: 783-9591
Main Office: 783-2381
e-mail: t.pannuti@moreheadstate.edu

Text: None

Course Description: ASTR 476. Special Problems. (1-6 hours): petition required. Participation in supervised work experience within the Space Science Center.

Grading: The final grade will be based on three things:

Suitable amount of effort for the credit attempted (50%)
Production of written results (i.e., “Term Paper”) (30%)
An interview with the student’s project supervisor (30%)

Grade Scale: Grading is based on scoring as above for the course.

A >90%; B = 80-89%; C = 70-79%; D = 60-69%; E <60%

Objectives:
1) Integrate knowledge and skills obtained through the Space Science Area of Concentration coursework.
2) Strengthen your research and analytical skills, and use the appropriate terminology in research and writing.
3) Convey your findings and conclusions to an audience that may not include specialists in your discipline.

-- Practical aspects of all three of these will be assessed examination of the finished products and the interview with the student’s supervisor.

Attendance: Attendance will not be taken specifically, as this course is for work on a project outside of the normal classroom setting. However, the nature of showing up to work, attention to detail, etc., will be assessed through discussions with the supervisor.

Special Needs: In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/

Campus Safety Statement: Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at http://www.moreheadstate.edu/emergency
Academic honesty: Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at http://www.morehead-st.edu/units/studentlife/handbook/academicdishonesty.html. For example: copying information from the Internet is plagiarism if appropriate credit is not given.

COURSE CALENDAR

This course does not have a set schedule, as it is based on an individual project. However, once the project has been selected and outlined, a specific schedule and expected work products will be provided to the student.
# COURSE
New Course or Major Revision to Existing Course
Undergraduate Curriculum Routing Form
Revised September 2016

<table>
<thead>
<tr>
<th>Course:</th>
<th>BMS 223, Dental Public Health IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Biology and Chemistry</td>
</tr>
<tr>
<td>College</td>
<td>College of Science</td>
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</tbody>
</table>

## Signatures

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Approval Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Beck</td>
<td>2/10/17</td>
<td>Approved</td>
</tr>
<tr>
<td>Charles Bridges</td>
<td>3/10/17</td>
<td>Disapproved</td>
</tr>
<tr>
<td>George Graves</td>
<td>3/10/17</td>
<td>Approved</td>
</tr>
<tr>
<td>Charles Linding</td>
<td>3/10/17</td>
<td>Disapproved</td>
</tr>
<tr>
<td>Dirk Grope</td>
<td>3/10/17</td>
<td>Approved</td>
</tr>
<tr>
<td>Wayne Miller</td>
<td>3/10/17</td>
<td>Disapproved</td>
</tr>
<tr>
<td>Steven Richmond</td>
<td>3/10/17</td>
<td>Approved</td>
</tr>
<tr>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laurie Couch</td>
<td>3/31/17</td>
<td>Disapproved</td>
</tr>
<tr>
<td>Vice President</td>
<td>4/10/17</td>
<td>Disapproved</td>
</tr>
</tbody>
</table>

Information Technology Resources are Available (Print and Sign)

Teacher Ed. Council Approval (if appropriate) (Print and Sign)

Undergraduate Curriculum Committee Action (Print and Sign)
I. COURSE INFORMATION

- The course title can only be 30 characters.
- The following are definitions of terms related to courses:
  - **Petition required** – requires permission from the Department Chair to enroll in a section of the course.
  - **Equated** – two different courses with the same content at the same level with different prefixes.
  - **Restricted** – program admission is required and must have Department Chair approval.
  - **Formula** – \(3-0-3\) = instruction hours – lab hours – credit hours

<table>
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<tr>
<th>Course Name:</th>
<th>Course prefix (Example: ENG)</th>
<th>Number (Example: 100)</th>
<th>Title (Example: Writing I)</th>
<th>Formula (Example: 3-0-3)</th>
<th>Intended Terms Offered (Example: Fall/Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMS 223</td>
<td>BMS 223-DENTAL PUBLIC HEALTH IV</td>
<td>3-0-3</td>
<td>Fall 2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved major or program(s) in which the course will be offered.

**Course Status:**

- **Required**
- **Elective**

**Course Description**: A study of the impact of technology on individuals, society, and the environment. Equated with RUL 288.

BMS 223. Dental Public Health IV (3-0-3). The course is an introduction to the dental public health leadership for advocates in oral health for Appalachia. Leadership theories and practice within public health systems will be examined for usability within the Appalachian Region. Through the application of systems theory the student will learn about the diverse interdisciplinary relationships and collaborative efforts of dental public health teams and how to lead those teams for Appalachia.

Please include a sample syllabus (must start on new page). All elements on the syllabus checklist must be included on the sample syllabus (syllabus checklist attached).

- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
- The teacher education syllabi must contain these elements: the theme for MSU’s Teacher Education Program; CAEP* themes; any additional EPSB themes; and program appropriate Kentucky Teacher Standards (www.kyepsb.net/teacherprep/standards.asp). Further information and models are provided at http://www.moreheadstate.edu/education/.

*The College of Education (CoE) is NCATE accredited. NCATE and TEAC have combined to form CAEP, a new national accrediting organization. Educator Preparation Programs, including the CoE at MSU are in the process of transitioning from NCATE to CAEP and as such, we are working to transition to align our programs with CAEP standards and requirements in anticipation of our next accreditation visit in 2018, at which time we will fall fully under CAEP standards and guidelines. For more information on CAEP and the new accreditation process, please see www.caepnet.org.

List departments and programs that could be impacted by this proposal.

None.

List the individuals notified by the proposing department chair and define the method of contact (email, phone conversation, etc.)
II. PURPOSE, GOALS AND OBJECTIVES

A. State the purpose of the course (for an existing course that is being revised, indicate how the purpose will change).

The course is an introduction to the dental public health leadership for advocates in oral health for Appalachia. Leadership theories and practice within public health systems will be examined for usability within the Appalachian Region. Through the application of systems theory the student will learn about the diverse interdisciplinary relationships and collaborative efforts of dental public health teams and how to lead those teams for Appalachia.

B. For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.

This course furthers the Appalachian Rural Dental Education Partnership (ARDEP), a collaborative effort between Morehead State University and University of Kentucky’s College of Dentistry. It builds on other Biomedical Sciences courses (BMS 120, 121, 122, 220, 221, and 222). This collaboration is designed to increase opportunities for Kentuckians from the Appalachian counties to pursue dental education and practice as a career choice. This course informs students more specifically about public health leadership. It serves the mission goals of: (1) educating students for success in a global environment, (2) fostering innovation, collaboration and creative thinking, and (3) serving our communities to improve the quality of life.

C. For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing?

☐ Yes  ☒ No

If so, how?
Not applicable.

D. Define how the course helps students to achieve learning objectives required for the program (i.e. what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).

Program Competencies:
Biomedical Sciences is a program focused on preparing students for post-graduate careers in the health care sector. This course (along with the other collaborative course BMS 120 and 121) gives important depth to the understanding of this particular aspect of such career paths. This course specifically develops the Biomedical Sciences Program competencies:

1. Written, oral and interpersonal communication skills in the sciences that will allow the graduate to collect, analyze, interpret, utilize and present information that is both qualitative and quantitative, and
5. An awareness of the importance of the arts, humanities, social and behavioral sciences, health sciences, biological sciences and physical sciences to the human community.

E. Describe how achievement of those learning objectives will be assessed.

As an online course there is extensive development of the communication skills used in public health leadership. Discussion Board Forums include the analysis and interpretation of essential leadership principles, skills and ethics associated with prepared dental public health leaders in Appalachia.

Student Learning Outcomes*.

A. identify the factors associated with the ever-changing field of public health systems;
B. describe the various approaches, perspectives and skills associated with a prepared public health leader;
C. discuss the skills and tools associated with dental public health leadership in Appalachia;
D. recognize the need for diverse interdisciplinary relationships and collaborative efforts required to be a successful dental public health leader in Appalachia.

The methods by which the achievement of each of these student learning outcomes will be measured is via four Discussion Board Forums, ten weekly quizzes and two Comprehensive Exams.

*See the attached syllabus for weekly modules, assessments and related learning objectives.

III. NEED AND JUSTIFICATION

A. List any existing course(s) that will be replaced by the proposed/revised course.

None.

B. Offer specific reasons for the development/revision of this course.

The Appalachian Rural Dental Education Partnership (ARDEP) was funded by the Appalachian Regional
Commission to address oral health needs and partnership network development for the Appalachian region of Kentucky. Morehead State University and the University of Kentucky are currently completing the second year of implementation of the Appalachian Rural Dental Education Partnership (ARDEP). The long-range goals of ARDEP are as follows:

1. To increase opportunities for Kentuckians from the Appalachian counties to pursue dental education and practice as a career choice.
2. To improve the numbers and distribution of dentists practicing in Kentucky’s Appalachian counties.
3. To improve oral health literacy and demand for care.
4. To develop financially sound oral health models to benefit the economic base of and societal improvements in Appalachia.

This course is a direct result of the partnership and addresses long-range goal number 1 of the ARDEP grant.

C. Justify the proposed instructional level (100-600) or instructional level change.
This course will be offered to sophomores, juniors or seniors highly interested in the extended contingencies associated with the practice of dentistry in the Appalachian region, including various strategies for success in partnership, finance and management.

D. List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.
No duplication.

IV. PERSONNEL
A. List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.
Tonia Socha-Mower, RDH, MALS, Dental Services Coordinator,
Craig Tuerk, Ph.D., Professor

B. Identify external adjunct faculty, if appropriate.
Sharlee Burch; B.S.D.H, M.P.H., Ed.D.
UK Assistant Professor, Public Health Dentistry, College of Dentistry, Lexington, KY
B.S., M.P.H., Western Kentucky University; Ed.D., Liberty University.

V. ADDITIONAL INFORMATION
A. Desired implementation date for the course.
Fall of 2017

B. Desired section size and anticipated enrollment.
5-10

C. Method of instruction (online, lecture, laboratory, individualized, etc.).
Online.

D. Additional facilities and special equipment needs for this course, if any.
None.

E. Use of library resources
   - Does the course require library resources to support specific class assignments or supplemental reading? Yes
   - Do the library services and resources presently available meet student needs for the course? Yes

If not, what library acquisitions are being proposed to meet essential needs?

F. Use of technology
1. List software to be used and its estimated cost. If there is intent to utilize the software in a lab, include the estimated cost of the server based license for the software. (IT does not install individual packages in labs, only server based versions).
   None.

2. List of the type of hardware to be utilized. Please note that the Director of Information Technology
should be notified when the course proposal is being developed. Early notification will allow IT an opportunity to provide quality information that can be included in the proposal request form.

None.

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I. PREREQUISITES
None

II. REQUIRED RESOURCE PURCHASES

TEXTBOOK: PUBLIC HEALTH FOR THE 21ST CENTURY: THE PREPARED LEADER
AUTHOR: LOUIS ROWITZ
PUBLISHER: JONES AND BARTLETT
EDITION YEAR: 2005

III. ADDITIONAL MATERIALS FOR LEARNING
A. Computer with basic audio/video output equipment
B. Internet access (broadband recommended)
C. Microsoft Office

IV. MEASURABLE LEARNING OUTCOMES
Upon successful completion of this course, the student will be able to:
A. Identify the factors associated with the ever-changing field of public health systems.
B. Describe the various approaches, perspectives and skills associated with a prepared public health leader.
C. Discuss the skills and tools associated with dental public health leadership in Appalachia.
D. Recognize the need for diverse interdisciplinary relationships and collaborative efforts required to be a successful dental public health leader in Appalachia.

V. COURSE REQUIREMENTS AND ASSIGNMENTS
A. Textbook readings and lecture presentations/notes
B. Discussion Board Forums (4)
   Discussion boards are collaborative learning experiences. Therefore, the student is required to provide a thread in response to the provided prompt for each forum. For each Discussion Board Forum, students will develop arguments based on reading and study. The student will then submit replies of 200–300 words to at least 2 classmates.
C. Quizzes (10)
   There will be a quiz 10 module/week’s that covers the reading and study pertaining to that module/week. The quizzes are open-book and open-notes.
D. Exams (2)
   There will be two exams, both cumulative. A midterm and a final exam, both are open-book and open-notes.

VI. COURSE GRADING AND POLICIES
Points:
   Discussion Board Forums (4 at 100 points each) 400
   Quizzes (10 at 20 points each) 200
   Exams (2 at 100 points each) 200
   TOTAL: 800

A. Scale
   A = 720 - 800 (90% - 100%)
   B = 640 - 719 (80% - 89%)
   C = 560 - 639 (70% - 79%)
   D = 480 - 559 (60% - 69%)
   E = <480 (<60%)

B. Late Assignment Policy (Course Attendance is measured by Assignment Completion)
   If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.
   Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:
   1. Late assignments submitted within one week of the due date will receive a 10% deduction.
   2. Assignments submitted more than one week late will receive a 20% deduction.
   3. Assignments submitted two weeks late or after the final date of the class will not be accepted.
   4. Late Discussion Board threads or replies will not be accepted.
   Special circumstances (e.g. death in the family, personal health issues) will be
reviewed by the instructor on a case-by-case basis.

**Academic honesty:** Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at [http://www.moreheadstate.edu/files/units/dsl/eaglehandbook/studenthandbook2008-09.pdf](http://www.moreheadstate.edu/files/units/dsl/eaglehandbook/studenthandbook2008-09.pdf) [pgs. 11 & 39]. For example: Copying information from the Internet is plagiarism if appropriate credit is not given.

**Americans with Disabilities Act (ADA)**
Students with disabilities are entitled to academic accommodations and services to support their access and safety. The Office for Disability Services in 109-J Enrollment Services Center coordinates reasonable accommodations for students with documented disabilities. Although a request may be made at any time, services are best applied when they are requested at or before the start of the semester. Please contact Disability Services at 606-783-5188 or e.day@moreheadstate.edu or visit their website at [www.moreheadstate.edu/disability](http://www.moreheadstate.edu/disability).

**Campus Safety Statement**
Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at: [www.moreheadstate.edu/emergency](http://www.moreheadstate.edu/emergency).

**VII. Bibliography**
This bibliography includes recommended reading and useful public websites.

http://apha.org/ American Association of Public Health: APHA champions the health of all people and all communities. We are the only organization that influences federal policy, has a 140-plus year perspective and brings together members from all fields of public health.

http://www.aaphd.org/ American Association of Public Health Dentistry: Founded in 1937, the American Association of Public Health Dentistry (AAPHD) provides a focus for meeting the challenge to improve oral health. AAPHD membership is open to all individuals concerned with improving the oral health of the public.

http://www.who.int/en/ World Health Organization: WHO began when our Constitution came into force on 7 April 1948 – a date we now celebrate every year as World Health Day. We are now more than 7000 people working in 150 country offices, in 6 regional offices and at our headquarters in Geneva.

**VIII. COURSE SCHEDULE and ASSIGNMENTS (with Associated Learning Outcomes)**

**Week 1/Module 1:** Introduction; Assigned Presentations and Readings: Module 1: A New Public Health: A Preparedness Approach; DB Forum 1. Learning Outcomes: A

**Week 2/Module 2:** Assigned Presentations and Readings: Module 2: The Leadership Pyramid; Quiz 1. Learning Outcomes: A

**Week 3/Module 3:** Assigned Presentations and Readings: Module 3: Public Health Infrastructure; Quiz 2. Learning Outcomes: A

**Week 4/Module 4:** Assigned Presentations and Readings: Module 4: The Social Capital Perspective; DB Forum 2. Learning Outcomes: B

**Week 5/Module 5:** Assigned Presentations and Readings: Module 5: Defining and Building Social Capital; Quiz 3. Learning Outcomes: B

**Week 6/Module 6:** Assigned Presentations and Readings: Module 6: Public Health Patterns from the Social Capital Perspective; Quiz 4. Learning Outcomes: A, B

**Week 7/Module 7:** Assigned Presentations and Readings: Module 7: Projects and Programs Associated with the Social Capital Perspective; Quiz 5. Learning Outcomes: A, B

**Week 8/Module 8:** Midterm Exam – cumulative over Quiz 1-5; DB Forum 1, 2

**Week 9/Module 9:** Assigned Presentations and Readings: Module 9: Dilemmas of the Public Health
Workforce; DB Forum 3. Learning Outcomes: A


Week 14/Module 14: Assigned Presentations and Readings: Module 14: Leadership in Dental Public Health: People Skills for Building Communities; Quiz 9. Learning Outcomes: C, D

Week 15/Module 15: Assigned Presentations and Readings: Module 15: Leadership in Dental Public Health: Communication and Change Strategies; Quiz 10. Learning Outcomes: C, D

Week 16/Module 16: Final Exam – cumulative over Quiz 6-10; DB Forum 3, 4
# Course

**New Course or Major Revision to Existing Course**

**Undergraduate Curriculum Routing Form**

Revised September 2016

## Signatures

<table>
<thead>
<tr>
<th>Role / Approval</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Originator</td>
<td>Eric Jerde</td>
<td>2/17/17</td>
</tr>
<tr>
<td>Departmental Curriculum Committee</td>
<td>Thomas Pannuti</td>
<td>2/17/17</td>
</tr>
<tr>
<td>Department Chair</td>
<td>Eric Jerde</td>
<td>2/22/17</td>
</tr>
<tr>
<td>College Curriculum Committee</td>
<td>Dirk Grupe</td>
<td>3/7/17</td>
</tr>
<tr>
<td>Dean</td>
<td>Wayne Miller</td>
<td>3/27/17</td>
</tr>
<tr>
<td>Information Technology Resources are Available</td>
<td>Amy Moore</td>
<td>3/2/17</td>
</tr>
<tr>
<td>Teacher Ed. Council Approval</td>
<td>N/A</td>
<td>3/31/17</td>
</tr>
<tr>
<td>Undergraduate Curriculum Committee</td>
<td>Laurie Couch</td>
<td>3/31/17</td>
</tr>
<tr>
<td>Vice President for Academic Affairs</td>
<td>Steve Rashek</td>
<td>4/10/17</td>
</tr>
</tbody>
</table>
This outline is to be used when a new course is proposed or when a major change is proposed to an existing course. If you are preparing a new experimental course/workshop proposal, please use the New Experimental Course/Workshop form. This outline is not to be used for General Education Courses. Refer to the General Education web site.

**I. COURSE INFORMATION**

- The course title can only be 30 characters.
- The following are definitions of terms related to courses:
  - **Petition required** – requires permission from the Department Chair to enroll in a section of the course.
  - **Equated** – two different courses with the same content at the same level with different prefixes.
  - **Restricted** – program admission is required and must have Department Chair approval.
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<th>Formula (Example: 3-0-3)</th>
<th>Intended Terms Offered (Example: Fall/Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSE 199</td>
<td>Special Topics</td>
<td>variable</td>
<td>on demand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved major or program(s) in which the course will be offered.
Space Science Area

Course Status:  
- Required
- Elective

Course Description
- Course description *exactly as it will appear in the catalog and as it appears on the sample syllabus.* Include pre-requisites/co-requisites, petition requirements, course equations, restrictions and term(s) offered. Example: XYZ 288. Guidelines for a New Course. (3-0-3) Fall and Spring; petition required. A study of the impact of technology on individuals, society, and the environment. Equated with RUL 288.

SSE 199. Special Topics. (1-6 hours).

Please include a sample syllabus (must start on new page). *All elements on the syllabus checklist must be included on the sample syllabus* (syllabus checklist attached).

- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
- The teacher education syllabi must contain these elements: the theme for MSU’s Teacher Education Program; CAEP* themes; any additional EPSB themes; and program appropriate Kentucky Teacher Standards (www.kyepsb.net/teacherprep/standards.asp). Further information and models are provided at http://www.moreheadstate.edu/education/.

*The College of Education (CoE) is NCATE accredited. NCATE and TEAC have combined to form CAEP, a new national accrediting organization. Educator Preparation Programs, including the CoE at MSU are in the process of transitioning from NCATE to CAEP and as such, we are working to transition to align our programs with CAEP standards and requirements in anticipation of our next accreditation visit in 2018, at which time we will fall fully under CAEP standards and guidelines. For more information on CAEP and the new accreditation process, please see www.caepnet.org.*

List departments and programs that could be impacted by this proposal.
None

List the individuals notified by the proposing department chair and define the method of contact (email, phone conversation, etc).
N/A

**II. PURPOSE, GOALS AND OBJECTIVES**

A. State the purpose of the course (for an existing course that is being revised, indicate how the purpose...
B. For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.

This course permits flexibility to "foster innovation," part of the mission statement.

C. For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing? □ Yes □ No

If so, how?

D. Define how the course helps students to achieve learning objectives required for the program (i.e. what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).

The Special Topics courses permit the offering of topics that are timely in the discipline, providing the opportunity to achieve new competencies, or to take advantage of special circumstances (i.e., visiting scholars, R&D deadlines) to achieve current competencies.

E. Describe how achievement of those learning objectives will be assessed.

Part of the development of any courses will utilize the typical methods of quizzes, homework, and "laboratory" activities.

### III. NEED AND JUSTIFICATION

A. List any existing course(s) that will be replaced by the proposed/revised course.

None

B. Offer specific reasons for the development/revision of this course.

There have been collaborations with outside groups to teach a course similar to SSE 120 in K-12 schools. However, the course material offered did not include everything in SSE 120. Since SSE 120 is the prerequisite for SSE 122, it was found that students taking this version of "SSE 120" would not be prepared for SSE 122. As such it was deemed useful to create a 100-level version of Special Topics to provide a mechanism to provide credit to the high school students, yet make it clear that more would be needed prior to enrollment into SSE 122. While this is the specific case that led to this proposal, SSE 199 can be used for other 100-level special or experimental courses.

C. Justify the proposed instructional level (100-600) or instructional level change.

This course would be for 100-level work such as that described above similar to SSE 120.

D. List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.

N/A

### IV. PERSONNEL

A. List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.

- Benjamin Malphrus, Ed.D., Professor
- Eric Jerde, Ph.D., Associate Professor
- Chuck Conner, Ph.D., Research Scientist
- Jeff Kruth, B.S., Antenna Engineer
- Kevin Brown, M.S., Research Engineer

B. Identify external adjunct faculty, if appropriate.

None identified. It is possible that SSE 199 might be created for outside individuals with special skills or expertise.

### V. ADDITIONAL INFORMATION

A. Desired implementation date for the course.

Fall 2017

B. Desired section size and anticipated enrollment.
Cap would be 30. Enrollment likely to be 10-20.

C. Method of instruction (online, lecture, laboratory, individualized, etc.).
   Lecture and possibly a laboratory

D. Additional facilities and special equipment needs for this course, if any.
   None

E. Use of library resources
   - Does the course require library resources to support specific class assignments or supplemental reading? [ ] Yes [x] No
   - Do the library services and resources presently available meet student needs for the course? [x] Yes [ ] No
     If not, what library acquisitions are being proposed to meet essential needs?

F. Use of technology
   1. List software to be used and its estimated cost. If there is intent to utilize the software in a lab, include the estimated cost of the server based license for the software. (IT does not install individual packages in labs, only server based versions).
      N/A
   2. List of the type of hardware to be utilized. Please note that the Director of Information Technology should be notified when the course proposal is being developed. Early notification will allow IT an opportunity to provide quality information that can be included in the proposal request form.
      N/A

G. Does this course involve the use of live animals? [ ] Yes [x] No
   If so, include the approval form from the associated Institutional Animal Care and Use Committee (IACUC).
Morehead State University  
College of Science  
Department of Earth & Space Sciences  

SSE 199 – Special Topics  
Spring 2017  

**Instructor:** Dr. Eric Jerde  
**Office:** Space Sci Center 101  
**Office Hours:** M-F 2 – 4 pm  
**Office Phone:** 783-5406  
**Main Office:** 783-2381  
**e-mail:** e.jerde@moreheadstate.edu  

**Text:** None  

**Course Description:** SSE 199. Special Topics. (1-6 hours).  

**Grading:** Since SSE 199 does not have a specific content, but is designed for “experimental” courses, those with special content to be offered only once, or to take advantage of special situations. The final grade will be based on course-specific activities, but will generally consist of homework, possible lab exercises, and periodic exams.  

**Grade Scale:** Grading is based on scoring as above for the course.  

A >90%; B = 80-89%; C = 70-79%; D = 60-69%; E <60%  

**Objectives:** See the information under “grading”. The objectives will vary, dependent on course concepts.  

**Attendance:** Notice of an absence must be given in advance if possible or, if not possible, as soon as the student returns to school. Any arrangements for turning in late work must be approved by the instructor before such work will be accepted.  

**Special Needs:** In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/  

**Campus Safety Statement:** Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at http://www.moreheadstate.edu/emergency  

**Academic honesty:** Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at http://www.morehead-st.edu/units/studentlife/handbook/academicdishonesty.html. For example: copying information from the Internet is plagiarism if appropriate credit is not given.
COURSE CALENDAR

This course does not have a specific schedule, as it is based on an individual circumstances for offering the course. However, once the course is offered, a specific schedule, expectations, and grading details will be provided to the student.
Sharri Lynn Jones

From: Eric Jerde
Sent: Monday, March 27, 2017 2:24 PM
To: Sharri Lynn Jones
Subject: Re: Clarification to SSE and ASTR proposals

Sharri,

1) Call SSE 199 "Special Topics".
2) They are NOT getting credit for SSE 120. That is why we’re doing this. Based on the high school content, students would not succeed in the SSE 122 course for which SSE 120 is a pre-req, so we have not given credit for 120 as it would imply they are ready for 122.
3) The intent is that "work products" of some sort are produced. Our thoughts are that while "shadowing" internships might be valuable, we are not going to provide credit for them unless some form of work is done.
4) Correct. It should be "Physics Area, Astrophysics Track".

Thanks!

Eric Jerde, Interim Chair
Dept of Earth & Space Sciences

---

Sharri Lynn Jones
Sent: Monday, March 27, 2017 10:58:19 AM
To: Eric Jerde
Cc: Laurie L. Couch
Subject: Clarification to SSE and ASTR proposals

Eric,

I have had the following questions related to your proposals. Would you please respond as soon as possible so that I can get the committee member the clarification in time to vote. I apologize for the need for a quick turn-around.

- For SSE 199, I have a couple of items. First there needs to be some consistency as to the name they want this course to have. On most of the proposal itself, it is listed as “Selected Topics” though in other spots and on the syllabus it listed as “Special Topics”. – Which do you want? I can make these changes.

"... Also, on part III.B. I have a question for the originator about the high school version of SSE 120: Are these students getting credit for 120 and if not, why not just have them take SSE 120 and remove that reasoning from the justification on this course?

- For SSE 339, SSE 439, and ASTR 339 are these students always gaining internships/work experiences which result in “work products” which can be evaluated by the faculty/staff in Earth & Space Sciences or is there another possible mechanism on which they could be evaluated?

- For ASTR 339 in part II.B. on #1 they discuss the “Space Science Area of Concentration” when I believe they meant to say “Astrophysics” as is discussed in part III.B.
Sharri Jones
Administrative Assistant to Assoc. VP Academic Affairs
204 Howell-McDowell Administration Bldg.
Morehead, KY 40351
606-783-2613
sh.jones@moreheadstate.edu

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COURSE
New Course or Major Revision to Existing Course
Undergraduate Curriculum Routing Form
Revised September 2016

Course: SSE 339 Cooperative Education I
Department: Earth and Space Sciences
College: Science

Signatures

ERIC JERDE 2/17/17
Originator (Print and Sign)

Thomas Panvuti 2/17/17
Departmental Curriculum Committee Approval (Print and Sign)

ERIC JERDE 2/22/17
Department Chair’s Approval (Print and Sign)

DIRK GROVE 2/27/2017
College Curriculum Committee Approval (Print and Sign)

Wayne Mitchell 3/10/2017
Dean’s Approval (Print and Sign)

Information Technology Resources are Available (Print and Sign)

Teacher Ed. Council Approval (if appropriate) (Print and Sign)

Laurie Couch 03-31-17
Undergraduate Curriculum Committee Action (Print and Sign)

Vice President for Academic Affairs (Print and Sign)
This outline is to be used when a new course is proposed or when a major change is proposed to an existing course. If you are preparing a new experimental course/workshop proposal, please use the New Experimental Course/Workshop form. This outline is not to be used for General Education Courses. Refer to the General Education web site.

**I. COURSE INFORMATION**

- The course title can only be 30 characters.
- The following are definitions of terms related to courses:
  - **Petition required** – requires permission from the Department Chair to enroll in a section of the course.
  - **Equated** – two different courses with the same content at the same level with different prefixes.
  - **Restricted** – program admission is required and must have Department Chair approval.
  - **Formula** – (3-0-3) = instruction hours – lab hours – credit hours

<table>
<thead>
<tr>
<th>Course Name:</th>
<th>Course prefix (Example: ENG)</th>
<th>Number (Example: 100)</th>
<th>Title (Example: Writing I)</th>
<th>Formula (Example: 3-0-3)</th>
<th>Intended Terms Offered (Example: Fall/Spring)</th>
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**Approved major or program(s) in which the course will be offered.**

Space Science Area

**Course Status:** □ Required ☑ Elective

**Course Description**

Course description *exactly as it will appear in the catalog and as it appears on the sample syllabus.* Include pre-requisites/co-requisites, petition requirements, course equations, restrictions and term(s) offered. Example: XYZ 288. Guidelines for a New Course. (3-0-3) Fall and Spring; petition required. A study of the impact of technology on individuals, society, and the environment. Equated with RUL 288.

SSE 339. Cooperative Education I. (1-6 hours); petition required. Participation in supervised work experience in a professional environment.

**Please include a sample syllabus** (must start on new page). All elements on the syllabus checklist must be included on the sample syllabus (syllabus checklist attached).

- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
- The teacher education syllabi must contain these elements: the theme for MSU’s Teacher Education Program; CAEP* themes; any additional EPSB themes; and program appropriate Kentucky Teacher Standards (www.kyepsb.net/teacherprep/standards.asp). Further information and models are provided at http://www.moreheadstate.edu/education/.
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**List departments and programs that could be impacted by this proposal.**

None

**List the individuals notified by the proposing department chair and define the method of contact (e-mail, phone conversation, etc.):**

N/A

**II. PURPOSE, GOALS AND OBJECTIVES**
A. State the purpose of the course (for an existing course that is being revised, indicate how the purpose will change).
   To provide the opportunity for students to gain academic credit for work done during an assignment to an outside organization (i.e., Summer internship, professional work)

B. For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.
   The objectives of the course are as follows:
   1) Integrate knowledge and skills obtained through the Space Science Area of Concentration coursework in a setting outside the university.
   2) Strengthen your research and analytical skills, and use the appropriate terminology in research and writing.
   3) Convey your findings and conclusions to an audience that may not include specialists in your discipline.

   Work outside the university (e.g., “service-learning”) is recognized as a major benefit toward educating students to be successful in a global environment and in fostering collaboration.

C. For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing? □ Yes □ No
   If so, how?

D. Define how the course helps students to achieve learning objectives required for the program (i.e. what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).
   By its very nature, the outside assignments students obtain will be for hands-on work to practice and integrate the principles and content of the program courses. The work products will serve as a means to evaluate the students.

E. Describe how achievement of those learning objectives will be assessed.
   Upon completion of the outside assignment, the work products will be evaluated by faculty and staff within the Department of Earth and Space Sciences and the Space Science Center, and the student supervisor will be contacted to discuss the student’s performance.

III. NEED AND JUSTIFICATION

A. List any existing course(s) that will be replaced by the proposed/revised course.
   None

B. Offer specific reasons for the development/revision of this course.
   Currently, there is no mechanism within the Space Science program for obtaining academic credit for outside efforts, as there is in other programs (such as Earth Systems Science.)

C. Justify the proposed instructional level (100-600) or instructional level change.
   Work assignments such as this are junior- and senior-level and require extensive knowledge and abilities.
   Students do not generally receive them until their final two years.

D. List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.
   No duplication. There are similar courses in terms of intent, but the actual work performed to earn the credit is unique.

IV. PERSONNEL

A. List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.
   Benjamin Malphrus, Ed.D., Professor
   Eric Jerde, Ph.D., Associate Professor
   Thomas Pannuti, Ph.D., Associate Professor
   Dirk Grupe, Ph.D., Assistant Professor
   Chuck Conner, Ph.D., Research Scientist
   Jeff Kruth, B.S., Antenna Engineer
   Kevin Brown, M.S., Research Engineer

B. Identify external adjunct faculty, if appropriate.
### V. ADDITIONAL INFORMATION

<table>
<thead>
<tr>
<th>A. Desired implementation date for the course.</th>
<th>Fall 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Desired section size and anticipated enrollment.</td>
<td>Variable section size (petition required), and probably 5 students per year</td>
</tr>
<tr>
<td>C. Method of instruction (online, lecture, laboratory, individualized, etc.).</td>
<td>Individualized experiences outside the university setting.</td>
</tr>
<tr>
<td>D. Additional facilities and special equipment needs for this course, if any.</td>
<td>None</td>
</tr>
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<td>E. Use of library resources</td>
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<td>• Does the course require library resources to support specific class assignments or supplemental reading?</td>
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<td>F. Use of technology</td>
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<td>1. List software to be used and its estimated cost. If there is intent to utilize the software in a lab, include the estimated cost of the server based license for the software. (IT does not install individual packages in labs, only server based versions).</td>
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</tr>
<tr>
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<td></td>
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Morehead State University  
College of Science  
Department of Earth & Space Sciences  

SSE 339 – Cooperative Education I  
Fall 2017

Instructor: Dr. Eric Jerde  
Office: Space Sci Center 101  
Office Hours: M-F 2 – 4 pm  
Office Phone: 783-5406  
Main Office: 783-2381  
e-mail: e.jerde@moreheadstate.edu

Text: None

Course Description: SSE 339. Cooperative Education I. (1-6 hours); petition required. Participation in supervised work experience in a professional environment.

Grading: The final grade will be based on three things:

- Suitable amount of effort for the credit attempted (50%)
- Production of written results (i.e., “Term Paper”) (30%)
- An interview with the student’s advisor (30%)

Grade Scale: Grading is based on scoring as above for the course.

A >90%; B = 80-89%; C = 70-79%; D = 60-69%; E <60%

Objectives:
1) Integrate knowledge and skills obtained through the Space Science Area of Concentration coursework in a setting outside the university.
2) Strengthen your research and analytical skills, and use the appropriate terminology in research and writing.
3) Convey your findings and conclusions to an audience that may not include specialists in your discipline.

-- Practical aspects of all three of these will be assessed examination of the finished products and the interview with the student’s supervisor.

Attendance: Attendance will not be taken specifically, as this course is for work with some other entity. However, the nature of attendance, attention to detail, etc., will be assessed through discussions with the internship supervisor.

Special Needs: In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/
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COURSE CALENDAR

This course does not have a set schedule, as it is based on an individual internship. However, once the internship has been arranged, a specific schedule and expected work products will be provided to the student.
### COURSE
New Course or Major Revision to Existing Course
Undergraduate Curriculum Routing Form
Revised September 2016

<table>
<thead>
<tr>
<th>Course:</th>
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<tbody>
<tr>
<td>Department:</td>
<td>Earth and Space Sciences</td>
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<td>College:</td>
<td>Science</td>
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**Signatures**

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Eric Jerde</td>
<td></td>
<td>2/17/17</td>
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<tr>
<td>Department Chair’s Approval</td>
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<td>2/22/17</td>
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<td>DIRN Group</td>
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<tr>
<td>Laurie Couch</td>
<td></td>
<td>3/31/17</td>
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Vice President for Academic Affairs (Print and Sign)
COURSE
New Course or Major Revision to Existing Course

This outline is to be used when a new course is proposed or when a major change is proposed to an existing course. If you are preparing a new experimental course/workshop proposal, please use the New Experimental Course/Workshop form. This outline is not to be used for General Education Courses. Refer to the General Education web site.

I. COURSE INFORMATION
- The course title can only be 30 characters.
- The following are definitions of terms related to courses:
  - **Petition required** – requires permission from the Department Chair to enroll in a section of the course.
  - **Equated** – two different courses with the same content at the same level with different prefixes.
  - **Restricted** – program admission is required and must have Department Chair approval.
  - **Formula** – (3-0-3) = instruction hours – lab hours – credit hours

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<td>(3-0-3)</td>
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Approved major or program(s) in which the course will be offered.

Space Science Area

**Course Status:** □ Required □ Elective

**Course Description**

Course description *exactly as it will appear in the catalog and as it appears on the sample syllabus*. Include pre-requisites/co-requisites, petition requirements, course equations, restrictions and term(s) offered. Example: XYZ 288. Guidelines for a New Course. (3-0-3) Fall and Spring; petition required. A study of the impact of technology on individuals, society, and the environment. Equated with RUL 288.

SSE 439. Cooperative Education II. (1-6 hours); pre-requisite SSE 339 and petition required. Participation in supervised work experience in a professional environment.

*Please include a sample syllabus* (must start on new page). *All elements on the syllabus checklist must be included on the sample syllabus* (syllabus checklist attached).

- Proposals for all Teacher Education courses (including content courses that typically have 50% more teacher preparation majors enrolled) are required to go to the Teacher Education Committee as part of the curriculum approval process.
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List departments and programs that could be impacted by this proposal.

None

List the individuals notified by the proposing department chair and define the method of contact (e-mail, phone conversation, etc.).

N/A

II. PURPOSE, GOALS AND OBJECTIVES
A. State the purpose of the course (for an existing course that is being revised, indicate how the purpose will change).
To provide the opportunity for students to gain academic credit for work done during an assignment to an outside organization (i.e., Summer internship, professional work)

B. For a new course, explain how the specific goals and objectives of the course relate to the mission statement of the University.
The objectives of the course are as follows:
1) Integrate knowledge and skills obtained through the Space Science Area of Concentration coursework in a setting outside the university.
2) Strengthen your research and analytical skills, and use the appropriate terminology in research and writing.
3) Convey your findings and conclusions to an audience that may not include specialists in your discipline.

Work outside the university (e.g., “service-learning”) is recognized as a major benefit toward educating students to be successful in a global environment and in fostering collaboration.

C. For a course that is being revised, are the specific goals and objectives or their relationship to the University mission changing? □ Yes □ No
If so, how?

D. Define how the course helps students to achieve learning objectives required for the program (i.e. what methods of assessments, other than grades, are to be used to insure that the desired objectives are attained by students).
By its very nature, the outside assignments students obtain will be for hands-on work to practice and integrate the principles and content of the program courses. The work products will serve as a means to evaluate the students.

E. Describe how achievement of those learning objectives will be assessed.
Upon completion of the outside assignment, the work products will be evaluated by faculty and staff within the Department of Earth and Space Sciences and the Space Science Center, and the student supervisor will be contacted to discuss the student’s performance.

III. NEED AND JUSTIFICATION

A. List any existing course(s) that will be replaced by the proposed/revised course.
None

B. Offer specific reasons for the development/revision of this course.
Currently, there is no mechanism within the Space Science program for obtaining academic credit for outside efforts, as there is in other programs (such as Earth Systems Science.)

C. Justify the proposed instructional level (100-600) or instructional level change.
Work assignments such as this are junior- and senior-level and require extensive knowledge and abilities. Students do not generally receive them until their final two years.

D. List the degree to which course duplicates or overlaps other courses now offered at MSU and justification for any duplication.
No duplication. There are similar courses in terms of intent, but the actual work performed to earn the credit is unique.

IV. PERSONNEL

A. List names, qualifications including highest earned degree, and academic rank(s), of faculty available to MSU who will teach the course.
Benjamin Malphrus, Ed.D., Professor
Eric Jerde, Ph.D., Associate Professor
Thomas Panutti, Ph.D., Associate Professor
Dirk Grupe, Ph.D., Assistant Professor
Jeff Kruth, B.S., Antenna Engineer
Kevin Brown, M.S., Research Engineer

B. Identify external adjunct faculty, if appropriate.
V. ADDITIONAL INFORMATION

A. Desired implementation date for the course.
   Fall 2017

B. Desired section size and anticipated enrollment.
   Variable section size (petition required), and probably 5 students per year

C. Method of instruction (online, lecture, laboratory, individualized, etc.).
   Individualized experiences outside the university setting.

D. Additional facilities and special equipment needs for this course, if any.
   None

E. Use of library resources
   • Does the course require library resources to support specific class assignments or supplemental reading? ☐ Yes ☒ No
   • Do the library services and resources presently available meet student needs for the course? ☒ Yes ☐ No
   If not, what library acquisitions are being proposed to meet essential needs?

F. Use of technology
   1. List software to be used and its estimated cost. If there is intent to utilize the software in a lab, include the estimated cost of the server based license for the software. (IT does not install individual packages in labs, only server based versions).
      N/A
   2. List of the type of hardware to be utilized. Please note that the Director of Information Technology should be notified when the course proposal is being developed. Early notification will allow IT an opportunity to provide quality information that can be included in the proposal request form.
      N/A

G. Does this course involve the use of live animals? ☐ Yes ☒ No
   If so, include the approval form from the associated Institutional Animal Care and Use Committee (IACUC).
Morehead State University
College of Science
Department of Earth & Space Sciences

SSE 439 – Cooperative Education II
Fall 2017

Instructor: Dr. Eric Jerde
Office: Space Sci Center 101
Office Hours: M-F 2 – 4 pm
Office Phone: 783-5406
Main Office: 783-2381
e-mail: e.jerde@moreheadstate.edu

Text: None

Course Description: SSE 439. Cooperative Education II. (1-6 hours); pre-requisite SSE 339 and petition required. Participation in supervised work experience in a professional environment.

Grading: The final grade will be based on three things:

- Suitable amount of effort for the credit attempted (50%)
- Production of written results (i.e., “Term Paper”) (30%)
- An interview with the student’s advisor (30%)

Grade Scale: Grading is based on scoring as above for the course.

A >90%; B = 80-89%; C = 70-79%; D = 60-69%; E <60%

Objectives:
1) Integrate knowledge and skills obtained through the Space Science Area of Concentration coursework in a setting outside the university.
2) Strengthen your research and analytical skills, and use the appropriate terminology in research and writing.
3) Convey your findings and conclusions to an audience that may not include specialists in your discipline.

-- Practical aspects of all three of these will be assessed examination of the finished products and the interview with the student’s supervisor.

Attendance: Attendance will not be taken specifically, as this course is for work with some other entity. However, the nature of attendance, attention to detail, etc., will be assessed through discussions with the internship supervisor.

Special Needs: In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783-5188, www.moreheadstate.edu/acs/
Campus Safety Statement: Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at http://www.moreheadstate.edu/emergency.

Academic honesty: Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated. Academic dishonesty will result in severe disciplinary action including, but not limited to, failure of the student assessment item or course, and/or dismissal from MSU. If you are not sure what constitutes academic dishonesty, read The Eagle: Student Handbook or ask your instructor. The policy is located at http://www.morehead-st.edu/units/studentlife/handbook/academicdishonesty.html. For example: copying information from the Internet is plagiarism if appropriate credit is not given.

COURSE CALENDAR

This course does not have a set schedule, as it is based on an individual internship. However, once the internship has been arranged, a specific schedule and expected work products will be provided to the student.