This course proposal form should be completed when introducing a new course or a revision of an existing course. The proposal will be reviewed by the Committee on Curriculum, or, in the case of minor revisions, will be approved administratively by the Associate Provost for Instruction.

This Course Proposal must be completed according to the guidelines provided in Course Proposal Form – Instructions and Guidance. Please see the last page of Course Proposal Form – Instructions and Guidance, for instructions on how this Course Proposal should be submitted to the Committee on Curriculum for review.

Date: 12 March 2018

1. Course Information:

1.1 Course Prefix and Number: EHS 320  
Course Title: Disease Prevention

1.2 □ This is a New Course.  
OR  
□ This is a Major Course Revision  
OR  
☒ This is a Minor Course Revision

If this is a Course Revision, please see Course Proposal Form – Instructions and Guidance to determine if your revision is major or minor. Indicate below the reason(s) for the revision.

(Please check all that apply)

☐ Course Number/Division  ☐ Learning Outcomes  ☐ Institutional Resources  
☐ Title  ☐ Concepts, Content  ☐ Semester Offered  
☒ Credit hours  ☐ Catalog Description  ☐ Course Inactivation  
☐ Pre- or Co-requisite(s)  ☐ Instructional Methods  ☐ Course Reactivation  
☐ Format  ☐ General Education

1.3 General Education knowledge and skills area (if applicable): If none, check here ☒

☐ American History  ☐ Humanities  ☐ Other World Civilizations  
☐ The Arts  ☐ Mathematics  ☐ Social Sciences  
☐ Basic Communication  ☐ Natural Sciences  ☐ Western Civilization
2. Proposer Need Statement:

2.1 Describe why this course (or course revision) is needed to meet current or proposed goals and outcomes of the program or College, and, if a revision, provide an explanation of and justification for the revision.

This course will be used to meet a program requirement for Environmental Health Science. It will teach students about historical and emerging diseases, and the role of environmental and public health programs to combat these problems. The course begins with the definition and origins of infectious diseases and historical problems with their treatment and prevention. Topics will move to emerging problems, and the methodologies required for identifying and tracking disease.

The revision is to allow time for the course to go into listed material in more depth.

2.2 List the pre-requisite or co-requisite courses (taught within the home department or taught by another department) and explain their relationship to the proposed course.

EHS 320 builds on the introductory EHS 250 Foundations of Environmental Health, and prepares students to explore the field in greater depth. EFB 303 ensures that students have basic microbiological understandings.

2.3 Explain the impact of this course in meeting the goals and outcomes of other Departments/programs (if any).

This course is open to any ESF student who wishes to learn about Environmental Health, but is not required nor does it impact the goals or outcomes of any other Departments or majors.

2.4 If the proposed course is designed to fulfill SUNY General Education Requirements, the Associate Provost for Instruction must review this proposal to ensure that General Education Requirements will be met for the specified knowledge area (See Instructions and Guidance). Please provide an explanation of how this course fulfills SUNY General Education Requirements.

NA

2.5 What are the staffing requirements (instructor, TA, Lab tech, etc.) for this course? If a new course, are there new staffing needs or are there adequate staff members already in place? If a revised course, are there additional staffing needs?

No Change from existing course.

2.6 What Department (or extra-Department) resources are or will be made available to support the course or course revision?

No additional resources beyond faculty time are anticipated for this course. A full time instructor from Environmental and Forest Biology, Bryan Leydet, is assigned to teach this course.

2.7 Anticipated Enrollment (enter where applicable)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Enrollment</th>
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</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>0</td>
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<tr>
<td>Spring Semester</td>
<td>25</td>
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<tr>
<td>Summer Semester</td>
<td>0</td>
</tr>
</tbody>
</table>

2.8 Anticipated frequency of class meetings.

50 minute lectures three times per week
3. DETAILED COURSE DESCRIPTION

3.1 COURSE IDENTIFICATION AND FORMAT:

3.1.1 Course Prefix and Number: EHS 320
3.1.2 Course Name: Disease Prevention
3.1.3 Credit Hours: 3
3.1.4 Semester (check all that apply): Fall ☐ Spring ☒ Summer ☐
3.1.5 Format (check as appropriate): Lecture ☒ Online ☐ Lab ☐ Field ☐
Other ☐ (explain)
3.1.6 Contact hours per week: ☒
3.1.7 Prerequisite(s) – if none, please enter “None” (Be specific, as Upper Division courses and Graduate courses will likely have some pre-requisite knowledge)

EHS 250 and EFB 303 or equivalent

3.2 SCOPE:

3.2.1 Level of Instruction (check one, or two if a shared resource course):

Upper Division ☒ Beginning Graduate ☐ Advanced Graduate ☐

3.2.2 Relation to curriculum or to other ESF or Syracuse University courses:

a. Is this a required course? No ☐ Yes ☒ If Yes, please list the program(s) for which it is a requirement: Environmental Health Science

b. Is this an elective course? No ☐ Yes ☒ This course is also an elective course of any ESF or SU student

c. Is enrollment in this course restricted? No ☒ Yes ☐ If Yes, please explain:

d. Are other ESF or SU courses similar or identical to this course? No ☐ Yes ☒ If Yes, please identify the courses:

e. Is this course a shared resource offering (i.e. is there a graduate or undergraduate concurrent offering)? No ☐ Yes ☒ If Yes, what is the course number of the concurrent offering? Proposed EHS 520 graduate offering

3.3 STUDENT LEARNING OUTCOMES:

Identify the student learning outcomes associated with this course.

After completing this course the student should be able to:
1. Describe how human intrusion into new environments can impact the emergence of new diseases;
2. Define the concept of emerging diseases, and distinguish between re-emerging diseases;
3. Define, from a public and environmental health perspective, control of historically important diseases, starting with cholera;
4. Understand the impacts of major disease outbreaks on environmental and public health, and the role of these outbreaks in forming regulations regarding the control of these diseases;
5. Describe what antibiotic resistance is, the causes of its rapid rise, and possible interventions; describe also what the impact on environmental health might be without those interventions;
6. Describe new methodologies use by public and environmental health offices in the identification and tracking of new disease outbreaks.

3.4 MAJOR CONCEPTS, PROCESSES or TOOLS:

Identify the course content and themes (e.g. Table of Contents) consistent with the learning domains and outcomes.

Students will be able to describe the concept of infectious diseases, and how this impacts not only individual but also public health.

Describe how human and animal interactions in new environments can lead to new diseases, with rapid dissemination in populations.

Discuss and understand the impacts of past epidemic diseases, the role of public health in the identification and control of diseases.

Describe new approaches to disease detection, tracking and control, and the role of public and environmental health officials and agencies in combating new and resurfacing epidemics.

TEXTBOOK:

WEEKLY SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shifting from Emergency Response to Prevention</td>
</tr>
<tr>
<td>2</td>
<td>Human Animal Interface</td>
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<tr>
<td>3</td>
<td>Ecological Approaches to Studying Disease</td>
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<tr>
<td>4</td>
<td>Emerging Infectious Diseases</td>
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<td>5</td>
<td>Cholera</td>
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<td>6</td>
<td>Control of Rabies</td>
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<td>7</td>
<td>Malaria and the Magic Bullet</td>
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<td>8</td>
<td>Smallpox</td>
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<td>9</td>
<td>Polio</td>
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<td>10</td>
<td>Influenza</td>
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<td>11</td>
<td>RNA Viruses</td>
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<tr>
<td>12</td>
<td>Antibiotic Resistance</td>
</tr>
<tr>
<td>13</td>
<td>Public Health Disease Surveillance Networks</td>
</tr>
<tr>
<td>14</td>
<td>Web Based Surveillance Systems</td>
</tr>
<tr>
<td>15</td>
<td>Future for Global Disease Eradication</td>
</tr>
</tbody>
</table>
3.5 INSTRUCTIONAL METHODS:

Identify the methods used to meet the course outcomes, as well as the principal instructional methods.

*This will be primarily a lecture based course. The course is meant to encourage discussion of topics and debate about the history and future of disease control. Printed materials from existing library resources and the web will be used to bring case studies to the discussion. Student knowledge will be assessed by written examinations (3 plus final) as well as a written research project report.*

3.6 CATALOG DESCRIPTION

Provide the course description using the precise format to be included in the ESF catalog (i.e. course number and title; format; brief description; semester(s) offered; and pre-/co-requisites). Please do not exceed 1000 characters.

*EHS 320 Disease Prevention (3)*

Two 50 minute lectures per week. History of infectious diseases, control measures, new and emerging diseases, prediction and monitoring of known and infectious diseases. Examination of the intersections of public and environmental health, disease control and prevention, and historical and emerging diseases, and tracking and prediction of outbreaks. Spring. Credit will not be granted for both EHS 520 and EHS 320. Prerequisites: EHS 250 and EBF 303.

3.7 COURSE HISTORY:

Provide the dates of prior approval of this course, or its revision history.

*Approved Spring 2015*
4. Institutional Impacts:

This section pertains to forecasting institutional resource needs to support the course or course revision. Provide clear statements regarding the needs and current availability (or absence) of resources. Assess budget impacts, including imposing course fees. Note that, if this is a course revision, only the impacts of the revision should be included.

Staffing needs: One faculty member

Classroom resources (e.g. physical facilities in a laboratory, lecture hall, flexible space, academic computing): One classroom for lectures and student presentations. Classroom needs are whiteboard, digital projector and internet access

Technology Resources: N/A

Computing Resources (software licensing, hardware, access): N/A

Library Resources (subscriptions, services): Existing library materials and subscriptions will be sufficient for this course

Transportation Requirements (budget, fees, fleet vehicles): N/A

Forest Properties or Field Practicum Facilities: N/A
5. Health and Safety Considerations:

Will any of the conditions or situations outlined below be present in association with the course? If this is a course revision, please only identify the health and safety considerations that result from the effects of the revision.

Yes / No

5.1. Will substances with any of the following properties be used during instruction: flammability, toxicity, corrosivity, reactivity, registered pesticide, legally controlled, or other characteristics with the potential to cause harm or injury?

5.2. Will any physical hazards be present during instruction? (e.g., machines that need safety guards; razor blades or syringes; compressed gases, etc.).

5.3. Will any biological hazards be present during instruction? (e.g., handling animals (rabies or hantavirus); cultures or stocks of infectious agents (fungal spores, viruses, bacteria, etc.).

5.4. Will any radiation hazards be present during instruction? (e.g., radioisotopes, X-rays, ultraviolet rays, lasers, etc.).

5.5. Will any electrical equipment that, due to its design, location, or method of use, pose any threat to safety during instruction? (Give considerable thought to electrical use outdoors, or any potentially wet location.).

5.6. Will there be any personal safety issues related to the class? (e.g., due to time of day or location, at the end of any organized class exercise, will students be in danger of physical assault, etc.).

5.7. Will any students be driving official state or research sponsored land or water vehicles during any class or instructional exercise?

5.8. Will any type of personal protective equipment be necessary during class exercises? (e.g., hard-hats, eye/face protection, hearing protection, hand/foot protection, lab coat, visibility clothing, etc.)

If the answer was “Yes” to any of the HEALTH AND SAFETY questions, please explain:

For lab and field courses to which all answers are “no”, you should explain that here, also. Normally, we would expect some safety precautions for such courses.
6. Coordination and Consultation

Signatures below, or attached letters, indicate that the affected departments, programs or units have been notified of this proposal and have had an opportunity to assess the impact of the proposal on their respective units.

Affected Academic Department(s) or Program(s):

Department/Program 1
__________________________
Name of Chair/Program Director
Or letter attached [ ]

Chair Signature
Date

Department/Program 2
__________________________
Name of Chair/Program Director
Or letter attached [ ]

Chair Signature
Date

Department/Program 3
__________________________
Name of Chair/Program Director
Or letter attached [ ]

Chair Signature
Date

[If more than three Departments/Programs, please continue on a separate page]

Other Units:

Associate Provost for Instruction & Dean of the Graduate School (for Gen Ed courses only)
__________________________
Date
Or letter attached [ ]

Registrar
Date
Or letter attached [ ]

Library Director
Date
Or letter attached [ ]

Computing and Network Services
Date
Or letter attached [ ]

Physical Plant
Date
Or letter attached [ ]

Forest Properties
Date
Or letter attached [ ]

Environmental Health and Safety
Date
7. Proposer Information and Department Chair Affirmation:

Contact Person:

Name: Lee Newman
Department: EFB
Email: lanewman@esf.edu
Phone: 470-4937

This proposal has been reviewed and approved by the sponsoring Department. Affected departments have been notified and given the opportunity to provide feedback. Department resources are or will be made available to support the course, or a plan is in place to meet the resource needs as identified in the Institutional Impacts section of this proposal (see Section 4, above).

Name: _____________________________________________ Date: _____
Department Chair (or designated curriculum representative)

Signature:______________________________________________ Or letter attached □
Department Chair (or designated curriculum representative)

8. Approvals:

________________________________________________________________________ Date
Curriculum Committee

________________________________________________________________________ Date
Faculty Governance

________________________________________________________________________ Date
Provost