February 1, 2013

Ken Sauer, Ph.D.
Senior Associate Commissioner for Research and Academic Affairs
Indiana Commission for Higher Education
101 W. Ohio Street, Suite 550
Indianapolis, IN 47204-1984

Dear Ken,

I am pleased to request routine staff action for a Graduate Certificate submitted for Purdue University West Lafayette. This Graduate Certificate is constituted of courses from existing, already-approved degree programs. This Certificate program has been reviewed by Purdue’s Graduate School and requires 15 academic credits.

The Certificate Program is:


Please let me know if you have any questions.

Best wishes,

Tim Sands
Executive Vice President for Academic Affairs and Provost
TO: T. D. Sands, Executive Vice President for Academic Affairs and Provost
FROM: MJT Smith, Dean
DATE: January 21, 2013
SUBJECT: Interdisciplinary Graduate Certificate in Information Security Policy, PWL

The enclosed proposal for a new Interdisciplinary Graduate Certificate in Information Security Policy, to be administered by the Departments of Communication, Linguistics, and Philosophy at Purdue University West Lafayette, was recommended for approval by the Graduate Council on January 18, 2013.

I am pleased to add my own endorsement to the proposal and hope that you can endorse it and transmit it to the president for approval by the Indiana Commission for Higher Education.

A few major points about the attached proposal:

- The Interdisciplinary Graduate Certificate in Information Security Policy is designed to offer a practitioner-oriented credential in this emerging area to students who are pursuing a Master’s or Doctoral degree on the West Lafayette campus.
- The need for educational programs in information security arises from the explosive growth in information and communications technology.
- Experience to date at Purdue has shown an increasing number of students interested in the information security field.

Please let me know if you have any questions about this recommendation for an Interdisciplinary Graduate Certificate in Information Security Policy from the Departments of Communication, Linguistics, and Philosophy at Purdue University.

Enclosure

Copies: Melissa Dark, Howard Sypher, Felicia Roberts, Matthias Steup, Eugene Spafford, Steven Wilson, Marlene Walls, Candiss Vibbert, Diane Beaudoin, Phil Pope

MJTS/tlp
GRADUATE CERTIFICATE PROGRAM

INFORMATION SECURITY POLICY

SUBMITTED BY

Department of Communication
Department of Linguistics
Department of Philosophy

PURDUE UNIVERSITY
WEST LAFAYETTE CAMPUS

RECEIVED IN THE GRADUATE SCHOOL
8/8/11 (for Technology only)
REVISIONS RECEIVED (to include COMM, LING, & PHIL)
5/18/12
FINAL REVISIONS COMPLETED
1/14/13
Signature Page

Graduate Certificate Title: Information Security Policy

Name of Department and College/School Offering the Graduate Certificate: Departments of Communication, Linguistics, and Philosophy, Purdue University

Campus: West Lafayette

REQUIRED APPROVALS:

COLLEGE/DEPARTMENT SIGNATURES ON ATTACHED PAGE....

__________________________  _______________________
Signature of Dean of the Graduate School [Mark J. T. Smith] Date 1/24/13

__________________________  _______________________
Signature of Executive Vice President for Academic Affairs and Provost [Timothy D. Sands] Date 1/31/13
## Signature Page

**Graduate Certificate Title:** Information Security Policy

**Approvals:**

**Name of Department and College/School Offering the Graduate Certificate:**

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Communication, M.S. and M.A. in Liberal Arts</td>
</tr>
<tr>
<td>West Lafayette</td>
</tr>
</tbody>
</table>

**Campus:**

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Linguistics, M.A. in Liberal Arts</td>
</tr>
<tr>
<td>West Lafayette</td>
</tr>
</tbody>
</table>

**Signature of Department Head:**

<table>
<thead>
<tr>
<th>Howard Sypher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howard E. Sypher</td>
</tr>
</tbody>
</table>

**Date:** 5-18-12

**Name of Department and College/School Offering the Graduate Certificate:**

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Philosophy, M.A. in Liberal Arts</td>
</tr>
<tr>
<td>West Lafayette</td>
</tr>
</tbody>
</table>

**Campus:**

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Philosophy, M.A. in Liberal Arts</td>
</tr>
<tr>
<td>West Lafayette</td>
</tr>
</tbody>
</table>

**Signature of Department Head:**

<table>
<thead>
<tr>
<th>Ronnie B. Wilbur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ronnie B. Wilbur</td>
</tr>
</tbody>
</table>

**Date:** 5-23-12

**Name of Department and College/School Offering the Graduate Certificate:**

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Communication, M.S. and M.A. in Liberal Arts</td>
</tr>
<tr>
<td>West Lafayette</td>
</tr>
</tbody>
</table>

**Campus:**

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Communication, M.S. and M.A. in Liberal Arts</td>
</tr>
<tr>
<td>West Lafayette</td>
</tr>
</tbody>
</table>

**Signature of Department Head:**

<table>
<thead>
<tr>
<th>Matthias Steup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matthias Steup</td>
</tr>
</tbody>
</table>

**Date:** 5/18/2012

**Signature of Dean of Liberal Arts:**

<table>
<thead>
<tr>
<th>Irwin H. Weiser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irwin H. Weiser</td>
</tr>
</tbody>
</table>

**Date:** 5-18-12
Proposal for a Graduate Certificate in Information Security Policy

Title: Information Security Policy

Program Description:

The purpose of the graduate certificate in information security policy is to offer a practitioner-oriented credential in this emerging area to students who are pursuing a Master's or Doctoral degree on the West Lafayette campus.

The need for educational programs in information security arises from the explosive growth in information and communications technology; the risks we face range from "threats of massive disruption: outages in power, transportation and communications systems resulting from denial of service; loss of privacy; alteration of critical data; and new forms of theft and fraud on an unprecedented scale. Threats from criminals, anarchists, extremists, cyber terrorists and random attackers continue to grow as we increase our reliance on computing infrastructure. The need for information assurance and security professionals has been well documented in recent years (National Research Council report "Toward a Safer and More Secure Cyberspace," 2007; Whitehouse report "Cyberspace Policy Review," 2009). While the Secretary of Homeland Security has announced that they want to hire 1000 cyber security experts and the NSA has announced that they want to hire 1500, it is not clear that the country currently has anything approaching 2500 cyber security experts to hire. Although the number of university programs and active faculty in this area have increased in the last dozen years, the number involved and the support provided for their efforts still falls far short of the national need.

In response to this growing need, faculty at Purdue University have been at the forefront of developing and implementing an interdisciplinary program in information security. The interdisciplinary program in Information Security was approved to offer the MS program in 1999 and the PhD program in 2006. The interdisciplinary program and degrees in information security are intended for students who are interested in a cyber-security path where technical expertise is required, but breadth and nontechnical background are also necessary.

Experience to date at Purdue has shown an increasing number of students interested in the information security field and increasing interest by potential employers including academia, research labs, business and industry, governmental agencies - civilian and defense and law enforcement. Some of our interdisciplinary information security graduates are taking positions where they are expected to have working knowledge of policy making and policy analysis as applied to information security. This Graduate Certificate in Information Security Policy will be offered to our students pursuing the Interdisciplinary MS or PhD in Information Security. Because of the growing interest by employers in business and industry, governmental agencies and law enforcement, we also recognize the need for career development for working professionals. With evidence of demand, a second impetus may be offered in the future for a graduate certificate in Information Security Policy for these working professionals, however, at this time the graduate certificate is only being offered to degree seeking students.

Target Audience:

We estimate this graduate certificate will enroll approximately 15 - 20 traditional MS and PhD students once fully implemented. The graduate certificate will be open to students from across campus.
This graduate certificate is related to three other graduate certificates that are being planned that have a public policy focus: Systems Engineering Policy, Environmental Policy and Social Policy. The faculty leadership council for the Global Policy Research Institute is the group that has identified these graduate certificates. The respective certificates will have the following common elements.

1. Each student who obtains the graduate certificate in public policy should have some basic knowledge about policymaking somewhere (i.e., the United States, the European Union, Nigeria, whatever institution, place or context is most important for their field of study). So they ought to have a course that gives them some understanding of the social context of policymaking. The appropriate course for this requirement will depend upon the substantive area of the certificate. For example, students in the Information Security Policy certificate will take Pol 620 Proseminar in Public Policy to meet this requirement, whereas students in the Social Policy certificate might have a different set of options to meet this requirement.

2. Each student who obtains a graduate certificate in public policy also ought to have a basic understanding of some of the most common tools used in policy analyses, such as statistical analysis, qualitative analyses (such as focus groups and case studies), and cost benefit analysis.

In addition to these common elements, students in these graduate certificates will be expected to have some in depth knowledge of a particular policy area. They should be able to acquire this basic knowledge in a sequence of 3 - 4 graduate courses. See the specific requirements for the information security policy graduate certificate below.

**Initiation Date of Certificate:**

We are seeking approval of the graduate certificate Fall 2012 with the goal of admitting students for the fall semester of the 2012-13 academic year.

---

1 The faculty leadership council for the Global Policy Research Institute includes: Lynn A. Bryan, Professor, Curriculum & Instruction and Physics; Melissa Dark, Professor, Computer and Information Technology; Jess Lowenberg-DeBoer, Professor Agricultural Economics; Stephen Martin, Professor, Economics; Joe Pekny, Professor, Chemical Engineering; Bert Rockman, Professor, Political Science; Gene Spafford, Professor, Computer Science; Joseph Thomas III, Professor of Pharmacy Practice; Wally Tyner, Professor, Agriculture Economics; Shelley MacDermid Wadsworth, Professor, Human Development and Family Studies; S. Laurel Weldon, Professor, Political Science.

---

**Admission Requirements:**

1. Bachelors degree from an accredited institution.
2. Minimum undergraduate GPA of 3.0/4.0.
3. Minimum TOEFL score of 550 or higher on the paper based test, 213 or higher on the computer based test, or 77 or higher on the Internet based test (iBT) for applicants whose native language is not English, with the possibility of allowing exceptions, including substitution of alternate criteria. Applicants who take the TOEFL iBT must...
achieve the following minimum test scores, in addition to the overall required score of at least 77: reading, 19; listening, 14; speaking, 18, and writing, 18. Applicants taking the IELTS must score at least 6.5 on the Academic Module.

4. Students who are admitted to the Interdisciplinary MS or PhD Information Security program are eligible to earn a certificate. Admission to the certificate program will require students to apply through a separate application to the Graduate School.

5. Students who are in other majors may be eligible to earn the certificate as well, pending approval by the admissions committee for the Interdisciplinary Information Security program.

Completion Requirements:

1. The graduate certificate in Information Security Policy consists of 15 credit hours. 12 of the 15 credit hours must be taken for a letter grade. The remaining 3 credit hours is a practicum that will be taken pass/fail.

2. No more than 12 credit hours earned in nondegree status, including credit hours earned toward completion of a single certificate or more than one certificate, may be applied toward a graduate degree.

3. Courses that have been certified as undergraduate excess may be used to satisfy requirements for a certificate.

4. Specific course requirements are as follows:

   A. One required Course in the Context of Policymaking:
      Pol 60000 or Pol 62000

   B. One required Course in Policy Analysis Tools:
      AgEcon 60800, Stat 50200, 51200, 51300
      Pol 60500, 60600

   C. Two substantive Courses:
      ASM 59100A, CNIT 52800, Tech 62100 Technology and Policy
      Com 69500 or Ling 59300 or Phil 54000 or Tech 58100

5. Students must have a GPA of 3.0/4.0 on the required courses to earn the certificate. The minimum grade for any course to be applied toward the certificate is a grade of C.

6. No more than three credits may be transferred from another institution for the certificate.

7. No undergraduate level courses may be used toward the certificate.

8. The maximum time allowed for completion of the certificate will be three years.

9. Courses may be applied to the certificate that also count toward credit hours required for the student’s MS or PhD in the interdisciplinary program in Information Security.

10. No more than 9 credit hours can be taken prior to admission to the certificate program that may be counted toward completion of the certificate.

Administrative Procedures:

Students who are already admitted to the Interdisciplinary MS or PhD program in Information Security will apply for consideration into the graduate certificate program in information security policy. To facilitate tracking of students who are enrolled in certificate programs, the Office of the Registrar will establish a special admission status for such individuals. When a student completes requirements for a certificate, the administrative program responsible for that
certificate will notify the Graduate School. The Graduate School will then notify the Office of the Registrar, which will post the certificate. The certificate, itself, will be printed by the Office of the Registrar. The certificate will be awarded jointly by the appropriate academic unit and the Graduate School. It will bear the signature of the head of the academic unit and the dean of the Graduate School. Certificates will be awarded at the normal times when degrees are awarded. This audit process will be the full responsibility of the unit administering the certificate, in this case the Interdisciplinary graduate program in Information Security.