INFORMATION SCIENCE

Graduate Program Head: Colin J. Neill
Program Code: INSC
Campus(es): Great Valley (M.S.)
Degrees Conferred: Master of Science (M.S.)
The Graduate Faculty

The graduate program in Information Science is designed to enable students to contribute to the development, implementation, and utilization of information technologies by providing a balance of theory and practice. Students gain insight in the role and management of emerging information technologies to gain competitive advantage.

Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (http://gradschool.psu.edu/prospective-students/how-to-apply). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions (http://gradschool.psu.edu/graduate-education-policies).

Students who have a baccalaureate degree in information systems, information science or other quantitative, scientific, or business discipline and those with experience in information technology will be considered for admission to the program. Students should have earned at least a 3.00 junior/senior average (on a 4.00 scale) in their baccalaureate program. Although not required, scores from the Graduate Record Examinations (GRE) or the Graduate Management Admissions Test (GMAT) will be considered by the admissions committee if submitted. If the admissions committee determines an area of weakness or insufficient baccalaureate preparation, the student may be required to take one or both pre-program requirement courses (IST 441 and SWENG 400). Pre-program requirements do not count toward the 33-credit program total.

The language of instruction at Penn State is English. English proficiency test scores (TOEFL/IELTS) may be required for international applicants. See GCAC-305 Admission Requirements for International Students (http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300-gcac-305-admission-requirements-international-students) for more information.

Degree Requirements

Master of Science (M.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Requirements. (http://gradschool.psu.edu/graduate-education-policies)

The requirement for the degree is 33 credits, consisting of 18 credits of required core courses, 12 credits approved electives, selected with the assistance of a graduate adviser, followed by an integrative course, which includes a master’s paper:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSC 431</td>
<td>Information Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>INSC 521</td>
<td>Database Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>INSC 525</td>
<td>Applied Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>INSC 526</td>
<td>Business Process Management and Integration</td>
<td>3</td>
</tr>
<tr>
<td>INFSY 860</td>
<td>Data Communications Systems and Networks</td>
<td>3</td>
</tr>
<tr>
<td>INFSY 863</td>
<td>Network Security</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>12 credits of approved electives</td>
<td>12</td>
</tr>
<tr>
<td>Culminating Experience</td>
<td>INSC 539 IT Systems Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

A grade-point average of at least 3.0 must be achieved, with at least 18 credits at the 500 level. Students lacking adequate preparation may be required to take one or both of the pre-program requirement courses (IST 441 and SWENG 400). Pre-program requirements do not count toward the 33-credit program total.

Student Aid

Graduate assistantships available to students in this program and other forms of student aid are described in the Tuition & Funding (http://gradschool.psu.edu/graduate-funding) section of The Graduate School’s website. Students on graduate assistantships must adhere to the course load limits (http://gradschool.psu.edu/graduate-education-policies/gsad/gsad-500/gsad-501-credit-loads-graduate-assistants) set by The Graduate School.

Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Information Science (INSC) Course List (https://bulletins.psu.edu/university-course-descriptions/graduate/insc)

Learning Outcomes

1. KNOW: Graduates will be able to understand the information needs of organizations and identify optimal IT solutions.
2. APPLY: Graduates will be able to apply known and emerging information systems theories and principles to improve and enhance deployed IT solutions.
3. APPLY: Graduates will design and maintain practically viable solutions to support information retrieval, data analysis, and decision-making.
4. COMMUNICATE: Graduates will be able to effectively communicate their technical perspective solutions to diverse audience.
5. THINK: Graduates will able to identify the security concerns of and ability to practice the professional standards of IT professional behavior.
6. PROFESSIONAL PRACTICE: Graduates will demonstrate knowledge of and ability to practice the professional standards of IT professional behavior.
Contact

Campus                        Great Valley
Graduate Program Head         Colin Neill
Director of Graduate Studies (DGS) Raghu Sangwan
or Professor-in-Charge (PIC)

Program Contact               Sharon V. Patterson
                               Penn State Great Valley
                               30 East SWedesford Road
                               Malvern PA 19355
                               svp40@psu.edu
                               (610) 648-3318

Program Website               View (http://greatvalley.psu.edu/
                               academics/masters-degrees/
                               information-science)