B.S. in Human-Centered Design and Development/M.S. in Informatics
IUG Long-Range Planner

Name _____

PSU ID _____

**Core Curriculum
(3-6 credits)**

IST 504: Foundations of Theories and Methods for Information Sciences and Technology Research *(fall)*

IST 505*: Foundations of Research Design in Information Sciences and Technology (*spring*)

*OPTIONAL: if taken, counts as research methods credits.

**Specialization Courses
(12-18 credits)**

Choose courses in one or more areas to support thesis or scholarly paper.

The shared UG courses will count as 6 specialization credits.

The specialization courses are listed on the **MS Informatics Audit Sheet**

**Research Methods
(6 credits)**

Select two research methods courses to develop a basic understanding of research methods.

Click here to view the approved methods course list.

**Capstone Experience
(3-6 credits)**

Choose capstone option.

Thesis - IST 600
Students who select the thesis option must take IST 505 and register for 6 credits of IST 600.

or

Scholarly Paper - IST 594

Total Undergrad Units Completed to Date: ____

(Do not include in-progress courses, list in-progress courses below)

Double-counted IUG Courses[1] (UG/GR)
(if retroactive, list course & semester completed)

_____   _____

_____   _____

JUNIOR YEAR

Fall _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		

Spring _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		

Summer _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		

SENIOR YEAR

Fall _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		
Grad (GR+IUG)		

Spring _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		
Grad (GR+IUG)		

Summer _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		
Grad (GR+IUG)		

FINAL YEAR

Fall _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		
Grad (GR+IUG)		

Spring _____	Cr.	UG/ GR/ IUG
Undergrad (UG+IUG)		
Grad (GR+IUG)		

Required Signatures

Student Signature _____ Date

Undergraduate Advisor Signature _____ Date

Graduate Director Signature _____ Date

Schreyer's Advisor Signature
(if necessary) _____ Date

Notes:

1. Up to 12 credits/four courses may be "double-counted" on both the undergraduate and graduate transcripts. A minimum of 50% of the courses proposed to count for both degrees must be at the 500 or 800-level. When we talk about these courses, we talk about them as:
    i. UG courses: appear only on the undergraduate transcript
    ii. IUG courses: courses that appear on both the undergraduate and graduate transcript.
    iii. GR courses: appear only on the graduate transcript.
2. 6 of the 18 credits (6 research methods credits + 12 specialization courses) must be in the major (IST)
3. Every semester, students must complete the "IUG Semester Report," obtain all signatures and submit to the Graduate School.
4. IUG students must maintain 12 credits to be a full-time student; 15 credits per semester is standard.

Courses eligible to double count for both Human-Centered Design and Development BS/Informatics MS

- GR courses (IST 504 required) used in the HCDD application focus area.
- UG courses used as graduate specialization course requirement.

Course	Title	Credits
IST 402	Emerging Issues and Technologies	3.0
IST 411	Distributed-Object Computing	3.0
IST 412	The Engineering of Complex Software Systems	3.0
IST 504	Foundations of Theories and Methods of Information Sciences and Technology Research	3.0
IST 505	Foundations of Research Design in Information Sciences and Technology	3.0
IST 543	Foundations of Software Security	3.0
IST 815	Foundations of Information Security and Assurance	3.0
IST 820	Cybersecurity Analytics	3.0

**Culminating Experience – Thesis or Scholarly paper

Students may choose a thesis or scholarly paper to fulfill the culminating experience.

Thesis

Students who choose the thesis option must register for 6 credits of IST 600 or IST 610, write a satisfactory thesis accepted by the master's committee, the head of the graduate program, and the Graduate School, and pass a thesis defense. Selecting the thesis option may require more than 1-year to complete. We recommend you take IST 505 if you choose the thesis option, it can be applied as an elective.

Scholarly Paper

Students who choose the scholarly paper option must register for at least 3 credits of IST 594 and complete the scholarly paper. The scholarly paper will be a focused piece of technical work that applies the student's expertise and knowledge base, and that is documented and presented as a scholarly paper report.

Note: Students who choose the thesis or scholarly paper have the option to work on their research project in more than one semester.