**Informatics**

**INFO 490  Special Topics  credit: 1 to 4 hours.**

Topics of current interest. 1 to 4 undergraduate hours. 1 to 4 graduate hours. May be repeated if topics vary. Prerequisite: Consent of instructor. Other prerequisites as specified for each topic offering. See Class Schedule.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>65245</td>
<td>Laboratory</td>
<td>A</td>
<td>04:00 PM - 05:50 PM</td>
<td>W</td>
<td>ARR - Art-East Annex, Studio 2</td>
<td>Linder, S</td>
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<td></td>
<td>Lecture</td>
<td>A</td>
<td>03:00 PM - 03:50 PM</td>
<td>W</td>
<td>ARR - Art-East Annex, Studio 2</td>
<td>Linder, S</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Makerspace
Restricted to Undergrad - Urbana-Champaign.
This course is an exploration of the history, function, and meaning of community-oriented makerspaces. It includes both classroom and studio sessions. Studio assignments will incorporate learning about open source software for graphic and 3D design and methods for rapid prototyping and production. Students will be introduced to a variety of materials and tools including paper, plastics, wood, fabric, and small-board electronics as well as digital embroidery machines, electronic textiles, 3D printers and scanners, electronic cutters, and a laser engraver. Section A includes an emphasis on iteration and self-directed learning through making. Students will complete and present an independent project at the end of the course that combines multiple tool areas. Must also register for lab. The class will meet in the CU Fab Lab in Art Annex II. This section is for undergraduate students only. Graduate students should register for CRN 68913.

| 68913 | Laboratory | AG | 04:00 PM - 05:50 PM | W    | ARR - Art-East Annex, Studio 2  | Linder, S  |
|       | Lecture   | AG | 03:00 PM - 03:50 PM | W    | ARR - Art-East Annex, Studio 2  | Linder, S  |

Credit Hours: 4 hours
Makerspace
Not intended for Undergrad - Urbana-Champaign.
This course is an exploration of the history, function, and meaning of community-oriented makerspaces. It includes both classroom and studio sessions. Studio assignments will incorporate learning about open source software for graphic and 3D design and methods for rapid prototyping and production. Students will be introduced to a variety of materials and tools including paper, plastics, wood, fabric, and small-board electronics as well as digital embroidery machines, electronic textiles, 3D printers and scanners, electronic cutters, and a laser engraver. Section A includes an emphasis on iteration and self-directed learning through making. Students will complete and present an independent project at the end of the course that combines multiple tool areas. Must also register for lab. The class will meet in the CU Fab Lab in Art Annex II. This section is for graduate students only. Undergraduate students should register for CRN 65245.

| 68131 | Laboratory | B  | 03:00 PM - 04:50 PM | T    | ARR - Art-East Annex, Studio 2  | Linder, S  |
|       | Lecture   | B  | 02:00 PM - 02:50 PM | T    | ARR - Art-East Annex, Studio 2  | Linder, S  |

Credit Hours: 3 hours
Makerspace
Restricted to Undergrad - Urbana-Champaign.
This course is an exploration of the history, function, and meaning of community-oriented makerspaces. It includes both classroom and studio sessions. Studio assignments will incorporate learning about open source software for graphic and 3D design and methods for rapid prototyping and production. Students will be introduced to a variety of materials and tools including paper, plastics, wood, fabric, and small-board electronics as well as digital embroidery machines, electronic textiles, 3D printers and scanners,
electronic cutters, and a laser engraver. Section B will include an emphasis on community engagement in makerspaces. Students in this section will evaluate makerspace curricula for classrooms and libraries and will have the opportunity to conduct a workshop with our community partners. Must also register for lab. The class will meet in the CU Fab Lab in Art Annex II. This section is for Undergraduates only. Graduate students should register for CRN 68914 Laboratory BG 03:00 PM - 04:50 PM T ARR - Art-East Annex, Studio 2 Linder, S

| Lecture | BG 02:00 PM - 02:50 PM T ARR - Art-East Annex, Studio 2 Linder, S |

Credit Hours: 4 hours
Makerspace
Not intended for Undergrad - Urbana-Champaign.
includes both classroom and studio sessions. Studio assignments will incorporate learning about open source software for graphic and 3D design and methods for rapid prototyping and production. Students will be introduced to a variety of materials and tools including paper, plastics, wood, fabric, and small-board electronics as well as digital embroidery machines, electronic textiles, 3D printers and scanners, electronic cutters, and a laser engraver. Section B will include an emphasis on community engagement in makerspaces. Students in this section will evaluate makerspace curricula for classrooms and libraries and will have the opportunity to conduct a workshop with our community partners. Must also register for lab. The class will meet in the CU Fab Lab in Art Annex II. This section is for Graduate students only. Undergraduate students should register for CRN 68131.

| 65396 | Lecture-Discussion JP 12:00 PM - 02:20 PM M 172 - Armory Pintar, J |

Credit Hours: 3 hours
Design & Prog Text Based Games
Not intended for students with Freshman class standing.
INFO 490 JP: Designing and Programming Text Based Games and Simulations. In this course, you will be introduced to the "design work" of game authoring, and will apply these theoretical ideas to specific programming practices and skills. You will become proficient in Inform 7, a programming language and design system for interactive fiction (IF), and text-based computer games and simulations. By the end of the semester you will have developed a game or literary work of IF, and made a substantive contribution to a team-written, historical simulation project, dramatically recreating a key moment in Illinois history. This class meets with CWL 461 JP. No prior programming knowledge is required for students to be successful in the course. Students will be expected to bring a laptop to class.

| 65222 | Online RB ARRANGED - - Brunner, R |

Credit Hours: 3 hours
Foundations of Data Science
Not intended for students with Freshman class standing.
Foundations of Data Science This class is an asynchronous, online course. Students MUST register by August 30 at 4 pm. Registration in this course after that point will not be permitted. This course will build a practical foundation for data science by teaching students basic tools and techniques that can scale to large computational systems and massive data sets. Students will first learn how to work at a Unix command prompt before learning about source code control software like git and the github site. Next, the Python programming language will be covered, with a focus on specific aspects of the language and associated Python modules that are relevant for Data Science. Python will be introduced and used primarily via the Jupyter Notebooks, and will cover the Numpy, Scipy, Matplotlib, Pandas, Seaborn, and scikit_learn Python modules. These capabilities will be demonstrated through simple data science tasks such as obtaining data, cleaning data, visualizing data, and basic data analysis. Students must have access to a fairly modern computer, ideally that supports hardware virtualization, on which they can install software. This class is open to sophomores, juniors, seniors and graduate students in any discipline. This class meets with STAT 430 RB (CRN 66998) and IS 490 RB (68792).