Statistics

STAT 430  Topics in Applied Statistics  credit: 3 OR 4 hours.
Formulation and analysis of mathematical models for random phenomena; extensive involvement with the analysis of real data; and instruction in statistical and computing techniques as needed. 3 undergraduate hours. 4 graduate hours. May be repeated with approval. Prerequisite: STAT 410 or STAT 420; or consent of instructor.

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<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>60247</td>
<td>Lecture-Discussion</td>
<td>M1G</td>
<td>03:00 PM - 03:50 PM</td>
<td>MWF</td>
<td>132 - Bevier Hall</td>
<td>Stepanov, A</td>
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</tbody>
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Credit Hours: 4 hours
Stochastic Processes
Restricted to Graduate - Urbana-Champaign.
A stochastic process is a random process that represents the evolution of some system over time. The course is aimed at advanced undergraduate and beginning graduate students. Topics include discrete-time Markov chains, random walks, continuous-time Markov chains, Poisson processes, birth-and-death processes, renewal processes, queues, Brownian motion (Wiener process), and Ito's lemma. Restricted to Statistics Graduate Students until Dec 1, 2014. Some seats are reserved for incoming Statistics graduate students. If you receive a Reserved-Closed error, that means the course is full except for the reserved seats.

| 60249| Lecture-Discussion          | M1U     | 03:00 PM - 03:50 PM | MWF  | 132 - Bevier Hall | Stepanov, A |

Credit Hours: 3 hours
Stochastic Processes
Restricted to Undergrad - Urbana-Champaign.
A stochastic process is a random process that represents the evolution of some system over time. The course is aimed at advanced undergraduate and beginning graduate students. Topics include discrete-time Markov chains, random walks, continuous-time Markov chains, Poisson processes, birth-and-death processes, renewal processes, queues, Brownian motion (Wiener process), and Ito's lemma. Restricted to students majoring in Statistics or Statistics & Computer Science until Dec 1, 2014.

| 36200| Lecture-Discussion          | S1G     | 01:00 PM - 01:50 PM | MWF  | G27 - Foreign Languages Building | Glosemeyer, D |

Credit Hours: 4 hours
Big Data Analysis Foundations
Restricted to Graduate - Urbana-Champaign.
This computationally-intensive course examines methods of data management and analysis for Big Data, characterized by high volume, variety, velocity, and veracity. Attention will be focused on advanced statistical analysis and visualization in Big Data applications employing parallel processing, storage and distribution techniques necessary for analysis of massive data sets. Data mining techniques, machine learning methods, and streaming technologies will be utilized for real-time analysis. Students must have access to a computer with at least 4GB of RAM on which they can install software. Prerequisites: STAT 425 and familiarity with a high-level language (e.g. Python, Java, C, F#), and command line programming. Restricted to Statistics Graduate Students until Dec 1, 2014. Some seats are reserved for incoming Statistics graduate students. If you receive a Reserved-Closed error, that means the course is full except for the reserved seats.

| 36199| Lecture-Discussion          | S1U     | 01:00 PM - 01:50 PM | MWF  | G27 - Foreign Languages Building | Glosemeyer, D |

Credit Hours: 3 hours
Big Data Analysis Foundations
Restricted to Undergrad - Urbana-Champaign.
This computationally-intensive course examines methods of data management and analysis for Big Data, characterized by high volume, variety, velocity, and veracity. Attention will be focused on advanced statistical analysis and visualization in Big Data
applications employing parallel processing, storage and distribution techniques necessary for analysis of massive data sets. Data mining techniques, machine learning methods, and streaming technologies will be utilized for real-time analysis. Students must have access to a computer with at least 4GB of RAM on which they can install software. Prerequisites: STAT 425 and familiarity with a high-level language (e.g. Python, Java, C, F#), and command line programming. Restricted to students majoring in Statistics or Statistics & Computer Science until Dec 1, 2014.