**Course Name:**
KNPE 253/3.0

Ergonomics and Human Factors

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**Course Instructor:**
Dr. Joan Stevenson

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**Contact Hours:**
Lectures: 3 x 1 hr/wk / 12 weeks

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**Prerequisite:**
For BPHEH, BSCH KINE Students: KNPE 153/3.0 (or PHED 153/3.0), ANAT 315/3.0, PSYC 100/6.0
For Health Students: PSYC 100/6.0 and ANAT 101/3.0 and KNPE 125/3.0 (or IDIS 150/6.0)
Level 2 or above in a HLTH (Major or Medial), KINE or PHED plan.

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**Exclusion:**
No more than 3.0 units from KNPE 253/3.0, PHED 253/3.0; KINE 253/3.0, PHED 450/3.0, or MECH 495/3.0 (both prior to 2006-2007)

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**Course Description:**
This course provides the necessary background to understand the capabilities and limitations of human performance in home, office and industrial settings. Topics include: evaluation methods; anthropometry and its impact on work; information input; physical work and tolerance limits; human-system interactive; cognitive and sensory factors; body rhythms and work schedules; and human errors.

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**Course Texts:**

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**Course Objectives:**
The primary objective of this course is to introduce students to a variety of fundamental concepts related to the field of human factors engineering and ergonomics.

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**Course Evaluation:**
Individual Assignment 25%
Midterm Examination 25%
Final Exam 50%

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**Course Outline**

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<td>Design of Manual Handling Tasks</td>
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<td>Engineering as a Field of Study</td>
<td>Work Capacity, Stress and Fatigue</td>
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<td>Anatomy, Body Posture, and Mechanics</td>
<td>Vision and Lighting</td>
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<td>Anthropometric Principles</td>
<td>Hearing, Sound, Noise and Vibration</td>
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<td>Design of Repetitive Tasks</td>
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