Winter 2003

**IOE 591 TRANSPORTATION HUMAN FACTORS**

UMTRI 157

Thursdays 3:10 – 4:50 p.m.

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**Textbooks**


THFJ = *Transportation Human Factors Journal*

+ = Written evaluation due at start of class

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Jan 9  **How to read a journal article**  
KRE 2001 Chapter 5

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Jan 16  **Intelligent Transportation Systems**  
THFJ, 2(4), 2000, 359-379. IVIS.  
*Kantowitz*  
+H21  The effects of sleep loss, time pressure and workload on ATC performance.  
*Lichacz*

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Jan 23  **Mental Models in ITS**  
H1  Application of human performance data and quantitative models to the design of automation.  
*Parasuraman*  

H40  Conflicting demands in the driving task.  
*Lansdown*  

*Godley*
Jan. 30 **Display Design - Automotive**

H 45 Occlusion as a technique for evaluating in-car displays. *Keinath, Baumann, Gelau, Bengler, Krems*

+H 49 Positioning peripheral vision-warning devices for snow plough operations. *Ward, Smith, Anders*


Feb 6 **Display Design - Aviation**

H 7 Auditory alerting system. *Ulfvengren*

TV Chapter 5 Aviation displays. *Wickens*

+H 13 Assessing patterns of head motion behaviour for adapting multisensory interfaces. *Bolia, Nelson*

Feb 13 **MID-TERM EXAM** List of two articles for evaluation and presentation due

Feb 20 **ATIS HF Guidelines**


Feb 27 **SPRING BREAK**

Mar 6 **Mental Workload**

H 41 Size matters. *Young, Stanton*

H 42 Age- and/or expertise specific modes of coping with mental workload. *Zimmer, Zimmer, Scheufler, Kaiser*

+H 43 The Signal Location Task as a method quantifying the distribution of attention. *Hoger*

Mar 13 **STUDENT PRESENTATIONS (practice)**

Mar 20 **Driver Workload**

H 44 Design and usability of driver-information-systems and carPCS. *Weimper & Roessger*

H 48 Baselining behaviour. *Stedmon, Carter, Bayer*

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<tr>
<th>Date</th>
<th>Subject</th>
<th>Chapters/Topics</th>
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<tr>
<td>Mar 27</td>
<td>Aviation HF</td>
<td>TV Chapter 1: Introduction to aviation psychology. <em>Tsang, Vidulich</em></td>
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<td>TV Chapter 4: Mental workload and situation awareness. <em>Vidulich</em></td>
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<td>H 29: Investigation on the dependence of pilot workload and flight simulation fidelity level. <em>Bauschat</em></td>
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<td>Apr 3</td>
<td>Aviation HF</td>
<td>TV Chapter 7: Pilot action and tasks. <em>Wickens</em></td>
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<td>TV Chapter 9: Automation and human performance in aviation. <em>Parasuraman, Byrne</em></td>
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<td>H 38: Failures in pilot-controller communications and their implications for datalink. <em>Gibson, Megaw, Donohoe</em></td>
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<td>Apr 10</td>
<td>STUDENT PRESENTATIONS (Grade)</td>
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