

<b>DEREE COLLEGE SYLLABUS FOR:</b> <b>PS 3134 EXPERIMENTAL COGNITIVE PSYCHOLOGY</b>		<b>3/3/4</b>
(Revised Fall 2017)		<b>LEVEL 5</b> <b>UK CREDITS: 20</b>
<b>PREREQUISITES:</b>	PS 3018 Research Methods in Psychology – Level 5	
<b>CATALOG DESCRIPTION:</b>	This course introduces students to experimental methodology, advanced statistical analysis, interpretation and presentation of data, writing of experimental reports. In addition students go through the research process following ethical principles of research. Laboratory sessions complement the lectures.	
<b>RATIONALE:</b>	This course builds upon the knowledge acquired in earlier courses and goes more in depth in designing, running, analyzing, and writing up simple experiments, with an emphasis on the core area of cognitive psychology. It provides opportunities to apply research skills in a laboratory setting with the use of computer software. It enhances critical thinking, a necessary skill for all psychology students, especially those who plan to pursue graduate degrees.	
<b>LEARNING OUTCOMES:</b>	As a result of taking this course, a student should be able to: <ol style="list-style-type: none"> <li>1. Conduct a literature search on selected scientific questions, formulate appropriate hypotheses, write publishable research reports using the current APA format and apply ethical principles of conducting research</li> <li>2. Demonstrate an understanding of different experimental and non-experimental designs for purposes of comparison and breadth.</li> <li>3. Evaluate, reflect and be critical of own and of others research designs in experimental work.</li> <li>4. Design experiment using the appropriate lab equipment</li> <li>5. Participate in experiments and perform statistical analysis of data obtained by appropriate lab software using the Statistical Package of Social Sciences (SPSS) software.</li> </ol>	
<b>METHOD OF TEACHING AND LEARNING:</b>	In congruence with the teaching and learning strategy of the college, the following tools are used: <ul style="list-style-type: none"> <li>➤ Classes consist of lectures and critical discussions of published research.</li> <li>➤ Individual designing of experiments using appropriate software, conducting the experiments using human participants, analyzing obtained data and writing of experimental reports. Practical laboratory exercises using SPSS.</li> <li>➤ Individual tutorial time, supervising all steps of the research paper.</li> <li>➤ Office hours</li> <li>➤ Use of Blackboard site</li> </ul>	

<b>ASSESSMENT:</b>	<p><b>Summative:</b></p> <table border="1" data-bbox="672 226 1416 453"> <tr> <td data-bbox="672 226 1237 323"> <b>Portfolio:</b> <ul style="list-style-type: none"> <li>• Short experimental report</li> <li>• Peer review exercise</li> </ul> </td><td data-bbox="1237 226 1416 323"><b>50%</b></td></tr> <tr> <td data-bbox="672 323 1237 453"> <b>Research Paper:</b>  Literature review/design/participants' recruitment/analysis and presentation of results. (2,500 to 3,000 words). </td><td data-bbox="1237 323 1416 453"><b>50%</b></td></tr> </table> <p><b>Formative:</b></p> <table border="1" data-bbox="672 516 1416 613"> <tr> <td data-bbox="672 516 1237 613"> <b>Laboratory Exercises:</b>  Hands-on application exercises of the material presented in class. </td><td data-bbox="1237 516 1416 613"><b>0%</b></td></tr> </table> <p>The formative laboratory exercises aim to prepare students for the summative assessments.  The research paper assesses Learning Outcomes: 1,2,3,4,5 with emphasis on 1,4,5.  The portfolio assesses Learning Outcomes: 1,2,3,4,5 with emphasis on 2,3.</p>	<b>Portfolio:</b> <ul style="list-style-type: none"> <li>• Short experimental report</li> <li>• Peer review exercise</li> </ul>	<b>50%</b>	<b>Research Paper:</b> Literature review/design/participants' recruitment/analysis and presentation of results. (2,500 to 3,000 words).	<b>50%</b>	<b>Laboratory Exercises:</b> Hands-on application exercises of the material presented in class.	<b>0%</b>
<b>Portfolio:</b> <ul style="list-style-type: none"> <li>• Short experimental report</li> <li>• Peer review exercise</li> </ul>	<b>50%</b>						
<b>Research Paper:</b> Literature review/design/participants' recruitment/analysis and presentation of results. (2,500 to 3,000 words).	<b>50%</b>						
<b>Laboratory Exercises:</b> Hands-on application exercises of the material presented in class.	<b>0%</b>						
<b>INDICATIVE READING:</b>	<p><b>RECOMMENDED READING:</b>  Kantowitz, B.H., Roediger III, H.L., &amp; Elmes, D.G. (2015) <i>Experimental Psychology</i> Cengage, 10th Edition</p> <p>American Psychological Association. (2009). <i>Publication manual of the American psychological association</i>. Washington, DC: American Psychological Association, 6th edition.</p> <p>Beins, B. C., &amp; Beins, A. M. (2008). <i>Effective writing in psychology: Papers, posters, and presentations</i>. Malden, MA: Blackwell Publishing.</p> <p>Field, A., &amp; Hole, G. (2004). <i>How to design and report experiments</i>. Sage Publications</p> <p>Harris, P. (2008). <i>Designing and reporting Experiments in Psychology</i>, Open University Press, 3rd Edition.</p> <p>Martin, D. W. (2008). <i>Doing psychology experiments</i>. Belmont, CA: Thomson-Wadsworth.</p> <p>Pallant J. <i>SPSS Survival Manual</i>, McGrawHill, 2nd edition.</p> <p>Pelham, B, &amp; Blanton, H. <i>Conducting Research in Psychology: Measuring the Weight of Smoke</i>. Cengage Learning, 4th Edition</p> <p>Stern, L. (2007). <i>What every student should know about avoiding plagiarism</i>. New York: Pearson Education, Inc.</p>						
<b>INDICATIVE MATERIAL:</b> (e.g. audiovisual, digital material, etc.)	<b>REQUIRED MATERIAL:</b> N/A						

	<b>RECOMMENDED MATERIAL:</b> The Psychologist British Journal of Psychology The Quarterly Journal of Experimental Psychology Experimental Psychology American Psychologist Experimental Psychology: Learning, Memory & Cognition
<b>COMMUNICATION REQUIREMENTS:</b>	Paper submitted in MS Word format. Academic use of English, both oral and written. APA style
<b>SOFTWARE REQUIREMENTS:</b>	Microsoft Office: Word, Excel, PowerPoint SPSS E-Prime Super Lab Wadsworth CogLab
<b>HARDWARE REQUIREMENTS:</b>	Tobii Eye Tracking X2-60 Compact Cedrus Smart Voice Key and I/O SV1 Cedrus USB Response Pad RB-740 Grass Nerve and Muscle Square Pulse Stimulator SD9 Grass Nerve and Muscle Dual Output Square Pulse Stimulator S88 Grass Photic Stimulator PS33 Plus Grass Audio Monitor AM8 World Precision Instruments (WPI) Accupulser A310 Mindray Vital Signs Monitor VS-800 Auto-Inflate Digital Blood Pressure Monitor FS-40 Bosch-Sohn Blood Pressure Unit D-72417
<b>WWW RESOURCES:</b>	APA electronic style guide: <a href="http://www.docstyles.com/apasquick.htm">www.docstyles.com/apasquick.htm</a>  American Psychological Association: <a href="http://www.apa.org">www.apa.org</a>  British Psychological Society: <a href="http://www.bps.org">www.bps.org</a>  Wadsworth Higher Education Learning: <a href="http://www.wadsworth.com">www.wadsworth.com</a>  The Purdue Online Writing Lab: <a href="http://owl.english.purdue.edu">owl.english.purdue.edu</a>  Writing Research Reports: <a href="http://methods.fullerton.edu/appa.html">methods.fullerton.edu/appa.html</a>
<b>INDICATIVE CONTENT:</b>	<b>I. Lecture</b> 1. Experimental Psychology and the Scientific Method 2. Research Ethics 3. Writing the Research Report

	<ol style="list-style-type: none"> <li>4. Formulating Hypothesis and the Basics of Experimentation</li> <li>5. Basic Between- and Within-Subjects Designs</li> <li>6. Factorial, repeated measures and mixed designs</li> <li>7. The need of statistics, analyzing results, and drawing conclusions</li> </ol> <p><b>II. Laboratory</b></p> <ol style="list-style-type: none"> <li>1. Individual projects will be selected from one or more of the cognitive area in psychology (such as memory, thinking, problem solving, attention, and social cognition).</li> <li>2. Practical application of SPSS in the research process.</li> </ol>
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