Subject Description Form

<table>
<tr><td>Subject Code</td><td>APSS434</td></tr>
<tr><td>Subject Title</td><td>Experimental Psychology</td></tr>
<tr><td>Credit Value</td><td>3</td></tr>
<tr><td>Level</td><td>4</td></tr>
<tr><td>Pre-requisite / Co-requisite/ Exclusion</td><td><u>Pre-requisite :</u>

APSS485 Cognitive Psychology: Knowing the Knower</td></tr>
<tr><td>Assessment Methods</td><td>
<table>
<tr><td>100% Continuous Assessment</td><td>Individual Assessment</td><td>Group Assessment</td></tr>
<tr><td>1. Project Presentation</td><td>--</td><td>25 %</td></tr>
<tr><td>2. Individual Paper</td><td>25 %</td><td>--</td></tr>
<tr><td>3. Quiz</td><td>40 %</td><td>--</td></tr>
<tr><td>4. Overall Participation</td><td>10 %</td><td>--</td></tr>
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</td></tr>
<tr><td>Objectives</td><td>1. To introduce students to a broad range of key principles of experimental procedures in psychology;
2. To provide an opportunity for students to connect the concepts of sound methodology with their practical applications in the field of cognitive psychology;
3. To facilitate students to acquire basic skills in designing an experimental task for use in psychological research;
4. To equip students with practical, hands-on experience in implementation, data analyses and data interpretation of simple psychological experiments.
5. To acquaint students with the current research on cognitive science.</td></tr>
<tr><td>Intended Learning Outcomes</td><td>Upon completion of the subject, the students should be able to:

1. Develop a general understanding of experimental methodology, design, and statistical analysis in experimental psychology.
2. Acquire knowledge of theoretical conclusions about mental and brain processes of various cognitive domains from empirical evidence.
3. Critically evaluate research methods conducted in the specific content areas (listed in Syllabus Part Two).
4. Generate knowledge about empirical research on human behaviors in recent approaches.
5. Develop a sense of how to anticipate and adjust for problems in their own research.</td></tr>
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	6. Practically design and execute an experiment, analyze and interpret the results, and write a psychology research report.
Subject Synopsis/ Indicative Syllabus	Part One – Fundamentals of Experimental Research 1. Introduction to scientific psychology 2. Research techniques: observation, correlation, and experiments 3. Design of hypothesis-driven experimental tasks 4. Ethics in psychological research 5. Data management, analysis and research reports Part Two –Practices of Experimental Psychology 1. Psychophysics & perception (auditory and visual system) 2. Attention and reaction time (attention and perception) 3. Conditioning and learning (remediation in learning difficulties) 4. Remembering and forgetting (memory and emotion) 5. Thinking and problem solving (social cognition)
Teaching/Learning Methodology	Lectures will be the main component to help students learn and develop a comprehensive understanding of recent approaches in research methodology of cognitive science. Existing cognitive research employing different methods will be used for teaching materials. The lecturer will analyze and reconstruct the major steps of how the studies have been conducted and highlight their methodological issues. In addition, in order to facilitate students to gain practical experiences in application, they will be required to conduct a small scale empirical project on the chosen topic by hypothesizing a research question, designing his/her own enquiry method, data collection and analysis, drawing conclusions, lastly writing a project report for assessment.
Assessment Methods in Alignment with Intended Learning Outcomes	<table><tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>3. Project Presentation</td><td>25%</td><td></td><td></td><td>V</td><td>V</td><td>V</td><td>V</td></tr><tr><td>4. Individual Paper</td><td>25%</td><td></td><td></td><td>V</td><td>V</td><td>V</td><td>V</td></tr><tr><td>3. Quiz</td><td>40%</td><td>V</td><td>V</td><td>V</td><td>V</td><td></td><td></td></tr><tr><td>4. Overall Participation</td><td>10%</td><td></td><td></td><td></td><td>V</td><td>V</td><td></td></tr><tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr></table> Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes: The quiz is to help students to develop a firm grasp of basic concepts. The project enables students to actually design an experiment of psychology, to try to solve problems they encounter in the process of conducting experiments, and to develop independent and analytical thinking. The individual paper helps students to

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<tr><td></td><td colspan="3">generate knowledge of writing a report for the experiments they design.
• The grade is calculated according to the percentage assigned;
• The completion and submission of all component assignments are required for passing the subject</td></tr>
<tr><td rowspan="8">Student Study Effort Required</td><td colspan="2">Class contact:</td><td></td></tr>
<tr><td>▪ Lecture</td><td>15</td><td>Hrs.</td></tr>
<tr><td>▪ Laboratory</td><td>15</td><td>Hrs.</td></tr>
<tr><td>▪ Seminars</td><td>9</td><td>Hrs.</td></tr>
<tr><td colspan="2">Other student study effort:</td><td></td></tr>
<tr><td>▪ Self-study</td><td>30</td><td>Hrs.</td></tr>
<tr><td>▪ Carrying out lab projects</td><td>33</td><td>Hrs.</td></tr>
<tr><td colspan="2">Total student study effort</td><td>102</td><td>Hrs.</td></tr>
<tr><td>Medium of Instruction</td><td colspan="3">English</td></tr>
<tr><td>Medium of Assessment</td><td colspan="3">English</td></tr>
<tr><td>Reading List and References</td><td colspan="3">Students will be provided with additional readings during the course.

<u>Essential Textbook</u>

Kantowitz, B. H., Roediger, H. L., & Elmes, D. G. (2009). Experimental Psychology, International Edition 9e. USA: Wadsworth.

<u>Supplementary Reading</u>

Gazzaniga, M. S. (Eds.). (2009). The cognitive neurosciences. Cambridge, Mass.: MIT Press.

Gazzaniga, M. S., Ivry, R. B., Mangun, G. R., & Steven, M. S. (2009). Cognitive neuroscience: the biology of the mind. New York: W.W. Norton.

Hartonek, E. B. (Eds.). (2009). Experimental psychology research trends. New York: Nova Science Publishers.

Healy, A. F. (Eds.). (2005). Experimental cognitive psychology and its applications. Washington, DC: American Psychological Association.

Kantowitz, B. H., Roediger, H. L., & Elmes, D. G. (2005). Experimental psychology: understanding psychological research. Belmont, Calif.: Wadsworth Thomson Learning.

Maclin, M. K., & Solso, R. L. (2008). Experimental psychology: a case approach. Boston, MA: Allyn and Bacon.</td></tr>
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	Mandler, G. (2007). *A history of modern experimental psychology: from James and Wundt to cognitive science.* Cambridge, Mass.: MIT Press. Ray, W. J. (2009). *Methods toward a science of behavior and experience.* Belmont, CA: Wadsworth / Cengage Learning. 朱滢 主編. (2012). 實驗心理學 (第 2 版). 北京：北京大學出版社.