

## Syllabus of Fudan University

Department: School of Social Development and Public Policy

Date: 2023.6.1

<b>Course Code</b>	SOCH130121.01						
<b>Course Title</b>	Psychology of Intelligence						
<b>Credit</b>	2	<b>Experiment (including Computer) Credit</b>	0	<b>Practice Credit</b>	1	<b>Aesthetic Education Credit</b>	0
<b>Credit Hours Per Week</b>	2	<b>Education on The Hard-Working Spirit Credit Hours</b>	0	<b>Language of Instruction</b>	Engl ish	<b>Honors Course</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Course Nature</b>	<input type="checkbox"/> Core General Education Course <input type="checkbox"/> Specific General Education Course <input type="checkbox"/> Basic Course in General Discipline <input type="checkbox"/> Others			2+X Major :			
				<input type="checkbox"/> Professional Core Course <input checked="" type="checkbox"/> Professional Advanced Course			
			Non 2+X Major :				
			<input type="checkbox"/> Professional Compulsory Course <input type="checkbox"/> Professional Elective Course				
<b>Course Objectives</b>	<p>This course aims to provide essential, state-of-the art knowledge on intelligence from a psychological angle. Expected learning outcomes are as follows.</p> <ul style="list-style-type: none"> <li>• Knowledge: to demonstrate understanding of dominating theories on and associated methodological approaches to intelligence.</li> <li>• Abilities: to be able to differentiate between the general intelligence and specialised cognitive abilities, to describe biological basis of and environmental effects on intelligence, and to apply the knowledge above to relevant societal issues.</li> <li>• Values: to develop critical perspectives on academic accounts of intelligence and their practical implications.</li> </ul>						
<b>Course Description</b>	<p>This course consists of four modules. Module 1 introduces dominating theories on and associated methodological approaches to intelligence at three levels: psychometric, information-processing, and biological levels (Weeks 1-6). This is followed up by Module 2, a revisit to the age-old nature-nurture debate by discussing the heritability of intelligence and environmental effects on intelligence (Weeks 7-9). Then, after the midterm exam, Module 3 focuses on two specific routes to research on intelligence: allied constructs of intelligence and group differences in intelligence (Weeks 10-12). Finally, Module 4 turns to intelligence's role in society in applied settings (Weeks 13-16).</p>						
<b>Course Requirements:</b>							
1. Students are expected to complete required readings prior to each session. Supplementary readings are recommended but not required, though.							

2. Lecture attendance is required and will factor into attendance grades.

**Teaching Methods:**

Lectures are the main form of instruction and students are encouraged to actively participate in class discussions. Students are expected to participate in two activities (in groups of three to five).

**Course Director's Academic Background:**

Jing joined the Faculty of Psychology after a two-year postdoc program at Fudan University. She received her B.A. from Tsinghua University and proceeded to pursue her master's and doctoral degrees in Cambridge under sponsorships of Cambridge Trust and China Scholarship Council, respectively. Jing is interested in gender studies from a psychological perspective, psychology and aging, and classic topics in social psychology (attitudes, prejudice, etc.). Her email is [fd\\_lijing@fudan.edu.cn](mailto:fd_lijing@fudan.edu.cn).

**Instructor's Academic Background:**

Ibid.

**Members of Teaching Team**

Name	Gender	Professional Title	Department	Responsibility
X				

**Course Schedule** (Please supply the details about each lesson):

**Week 1 Introductory remarks**

- Overview of the course syllabus, methods of assessment and expected learning outcomes.
- Early development of theories and measurement of intelligence.

**Week 2 Theories of intelligence I**

- Introducing three levels of theories: Psychometric, information-processing, and biological levels.
- Examples of three studies at three respective levels.

**Week 3 Theories of intelligence II**

- Psychometric models of intelligence and general intelligence.
- IQ and Gardner's theory of multiple intelligence.

**Week 4 Group Activity #1: Design intelligence tests**

**Week 5 Theories of intelligence III**

- Information-Processing mechanisms underlying visual-spatial reasoning.
- Cognitive correlates of intelligence: processing speed and working memory.

**Week 6 Theories of intelligence IV**

- Brain and intelligence.
- Genetic basis of intelligence.

**Week 7 Heritability and stability of intelligence**

- Kinship studies and single genes.
- The rise and fall of intelligence.

**Week 8 Environmental effects on intelligence**

- Methodological challenges to the examination of environmental effects.
- The physical environment and the social environment.

**Week 9 Midterm exam****Week 10 Critical thinking and Creativity: Alternative models of intelligence**

- Critical thinking: Construct and assessment.
- Embracing intelligence and creativity: Theoretical frameworks and empirical evidence.

**Week 11 Giftedness and intellectual impairment**

- Extremes of intelligence I: Giftedness.
- Extremes of intelligence II: Intellectual impairment.
- Extremes of intelligence III: Prodigies and savants.

**Week 12 Culture, sex, and intelligence**

- (Multi-)cultural perspectives on intelligence.
- Beyond sex differences in intelligence (and cognitive abilities).

**Week 13 Intelligence in application I: Intelligence in education, work, and social mobility**

- Predicting achievement in education and work and social mobility.
- Emotional intelligence, successful intelligence, and leadership.

**Week 14 Group Activity #2: Implementing intelligence tests in applied settings****Week 15-16 Intelligence in application II: Intelligence, health, mortality, and healthy aging**

- The intelligence-mortality association.
- Aging research on intelligence.

**Weeks 17-18 Office hour****The design of class discussion or exercise, practice, experience and so on:**

## 1. Group activity #1 (Week 4)

- Objective: to enable students to use their knowledge on psychometric models of intelligence to develop their own intelligence tests.
- Requirements: students are expected to form groups of three to five and design an intelligence test (on specific aptitudes, creativity, cognitive abilities, etc.). In Week 4, each group will have 15 minutes to present the intelligence test of their design and hear feedback from their peers. By the end of Week 4, each group should hand in (a) a packet specifying the aim of the test, test instructions, test items, scoring scheme, and score interpretation, and (b) a document detailing the responsibilities each group member has undertaken.
- Full mark: 10 marks.

## 2. Midterm exam (Week 9)

- Objective: to evaluate students' grasp of dominating theories on and associated methodological approaches to intelligence, and their understanding of the biological basis of and environmental effects on intelligence.

- Length: 90 minutes.
  - Full mark: 25 marks.
  - Format: 8 multiple-response questions (2 marks per question) and 3 short answer questions (3 marks per question).
3. Group activity #2 (Week 14)
- Objective: to deepen students’ understanding of how intelligence tests are implemented in applied settings and how test results might be utilised and interpreted.
  - Requirements: students are expected to form groups of four to five and perform a sketch (10-15 minutes). The titles, situations, roles, and plots of the sketches may vary, but all sketches should be about “implementing intelligence tests in applied settings”.
  - Full mark: 15 marks.
4. Final essay (to be handed in by the end of Week 17)
- Objective: to assess students’ ability to develop critical perspectives on academic accounts of intelligence and their practical implications.
  - Word limit: 1,000 words (in English; essays with less than 900 words or more than 1,100 will not be accepted).
  - Title: Students will choose a title from a list of topics (released in Week 9).
  - Late hand-ins will lead to a deduction of 10% of essay grades per day.
  - No essay will be accepted more than a week after the deadline.

**If you need a TA, please indicate the assignment of assistant:**

1. Assisting the instructor with lecture preparation and leading discussion sections.
2. Obtaining and distributing course materials.
3. Proctoring the midterm exam.
4. Grading the midterm exam and the final essay.
5. Recording and calculating final grades.

**Grading & Evaluation** (Provide a final grade that reflects the formative evaluation process):

- Attendance and class discussions: 10%
- Group activity #1: 10%
- Midterm exam: 25%
- Group activity #2: 15%
- Final essay: 40%

**Usage of Textbook:**  Yes (complete textbook information form below)  No

**Textbook Information** (No more than two textbooks) :

Title	Author	ISBN	Publishing time	Publisher	Type I	Type II
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					<input type="checkbox"/> Self-compiled Textbook (Published) <input type="checkbox"/> Non-mainland Textbook <input type="checkbox"/> Other Textbook (Published)	<input type="checkbox"/> National Planning Textbook <input type="checkbox"/> Provincial and Ministerial Planning Textbook <input type="checkbox"/> School Level Planning Textbook <input type="checkbox"/> Others
					<input type="checkbox"/> Self-compiled Textbook (Published) <input type="checkbox"/> Non-mainland Textbook <input type="checkbox"/> Other Textbook (Published)	<input type="checkbox"/> National Planning Textbook <input type="checkbox"/> Provincial and Ministerial Planning Textbook <input type="checkbox"/> School Level Planning Textbook <input type="checkbox"/> Others

**Teaching References** (Including author, title, publisher, publishing time,ISBN):

**Reference books:**

1. Hunt, E. (2010). *Human intelligence*. Cambridge: Cambridge University Press. ISBN: 9781283055420.
2. Mackintosh, N. (2011). *IQ and Human Intelligence*. Oxford: Oxford University Press. ISBN: 9780199585595.
3. Sternberg, R. J. (2020). *The Cambridge Handbook of Intelligence*. Cambridge: Cambridge University Press. ISBN: 9781108755818.

**Journal articles:**

1. Deary, I. J. (2012). Intelligence. *Annual Review of Psychology*, 63(1), 453–482. DOI: 10.1146/annurev-psych-120710-100353
2. Deary, I.J., Cox, S.R. & Hill, W.D. (2022). Genetic variation, brain, and intelligence differences. *Nature Molecular Psychiatry* 27, 335–353. DOI: 10.1038/s41380-021-01027-y
3. Evers, N. F. G. & Greenfield, P. M. (2021). A model of how shifting intelligence drives social movements. *Journal of Intelligence*, 9(4), 62. DOI: 10.3390/jintelligence9040062
4. Kandler, C., Riemann, R., Angleitner, A., Spinath, F. M., Borkenau, P., & Penke, L. (2016). The nature of creativity: The roles of genetic factors, personality traits, cognitive abilities, and environmental sources. *Journal of personality and social psychology*, 111(2), 230–249. DOI: 10.1037/pspp0000087

Table column size can be adjusted according to the content.