

THE UNIVERSITY OF HONG KONG
FACULTY OF SOCIAL SCIENCES
Department of Psychology

COURSE OUTLINE (2020/2021, SEMESTER ONE)

1. Basic Course Information

| | |
|----------------------------------|---|
| Course Code | PSYC7301 |
| Course Title | Introduction to Research Methods in Psychology |
| Course Credits | 6 |
| Lecture Time & Venue | Friday 3:30 – 5:20; online* for sessions on Sept 4, 11 & 18 CPD 3.41 (when face to face classes resumes) |
| Tutorial Time & Venue | Friday 5:30 – 6:20; online* for sessions on Sept 11 & 18 CPD 3.41 (when face to face classes resumes) |

* more details on the online sessions will be posted on Moodle

2. Course Instructor / Course Co-ordinator

| Name | Office | Phone | E-mail | Consultation Hour |
|-------------|---------------|--------------|----------------|--------------------------|
| Henry Ng | 6.16, JCT | 39178205 | nghks@hku.hk | By appointment |
| Wendy Lau | 6.13, JCT | 39178226 | wlau049@hku.hk | By appointment |

3. Course Description

The field of psychology has taken a scientific approach since the beginning of the 20th century (or even earlier). No matter you aspire to become a researcher or a practitioner (e.g. a clinical psychologist), learning the scientific method is a key to your success. Taking a problem-based approach, this course will be delivered in lectures, accompanied with real research problems and hands-on exercises on conducting statistical analyses. You will learn how psychology research is conducted, which is essential to your dissertation and other courses.

4. Course Learning Outcomes

On completing the course, students will be able to:

- a. Evaluate psychology research from the methodological and statistical perspectives;
- b. Understand the logic of null hypothesis significance testing;
- c. Conduct statistical analyses with IBM SPSS;
- d. Understand the research process and design a valid research;
- e. Report statistical analyses orally and in writing.

5. Assessment Methods and Weighting

| Assessment methods | Weighting (%) |
|---------------------------|----------------------|
| Individual assignments | 20% |
| Final test | 40% |
| Lab test | 10% |
| Group project | 30% |

6. SPSS

The SPSS (Statistical Package for the Social Sciences) is the commonly used statistical software suite for complex statistical data analysis on Windows, Macintosh and Linux platforms. You will be learning how to conduct statistical analyses using SPSS in this course, so please ensure that you have access to the software.

For details on how to download and install the software, please go to:

https://intraweb.hku.hk/reserved_1/its/guide/spss-procedure.html

If you have any technical issues on installing the software, please contact our I.T. officer, Mr. Rain Li, via email at qyli@hku.hk or phone 3917 7036.

7. Tools for online teaching

Please note that various software may be used for online lectures and tutorials.

Please go to the following link for instructions on how to download and install **Microsoft teams**:

<https://www.its.hku.hk/services/communication/conferencing/teams>

Please go to the following link for instructions on how to download and install **Zoom**:

<https://www.its.hku.hk/services/communication/conferencing/zoom>

If you have any technical issues on installing the software, please contact our I.T. officer, Mr. Rain Li, via email at qyli@hku.hk or phone 3917 7036.

8. Required/Recommended Readings & Online Materials

There are two textbooks for this course:

1. Caldwell, S. (2013). *Statistics unplugged*. Belmont, CA: Wadsworth/Thompson Learning.
A portable yet comprehensive introductory text for statistics. It is also a reader-friendly textbook for people who do not have a strong math or statistics background. Our course will cover over 80% of the textbook and many exercises are extracted from it (with answers). Everyone should get one from the university bookstore.
2. [Optional] Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics (5th Edition)*. London: Sage.
This is a more advanced textbook that we will also be using in the next semester (yes, Henry will be teaching 7302 as well). It is packed with in-depth discussion of statistical theories, examples and exercises. It is also a great reference book if you use SPSS in your dissertation and future research. You can decide to buy or not in the second semester.

The textbook ordering form will be available on Moodle for you to purchase the e-textbook through Swindon.

Reference book:

Jackson, S. L. (2012). *Research Methods and Statistics: A critical thinking approach (4th ed.)*. Belmont, CA: Wadsworth Cengage Learning. ISBN- 13: 978-1-111-34658-4.

Another text that focuses more on research designs. Referenced contents (*RMAS*) will be provided on Moodle for your own studying only.

Journal articles:

Journal articles will be distributed on Moodle. Stay tuned.

9. Marking scale

Grading will be based on the following table:

| Marks | Grade | Marks | Grade | Marks | Grade | Marks | Grade |
|-------|-------|-------|-------|-------|-------|-------|-------|
| >=90 | A+ | 77-79 | B+ | 67-69 | C+ | 56-59 | D+ |
| 85-89 | A | 73-76 | B | 63-66 | C | 50-55 | D |
| 80-84 | A- | 70-72 | B- | 60-62 | C- | <= 49 | F |

10. Feedback Policy

To be honest, this would not be an easy course for some students (well, this applies to every course) and we noticed that in our previous cohorts. We aimed to give the best content to you WITHOUT making you panic. Some students with a math or science background may find the course progress being too slow, which is absolutely fine. Feel free to talk to us if you are a fast learner and want to learn advanced content. If you have difficulties picking up math and statistics, again, talk to us. We do not eat people (though that's the first impression I often leave on new students).

11. Class conduct

All assignments and exams will be checked for plagiarism against a database of articles, books, webpages, and essays submitted by students at HKU and other universities. No scores will be given for an assignment that contains plagiarized materials. Further penalties will also be applied. These penalties include a zero mark for the course. Plagiarism will also be reported to the Department/Faculty Office/University Disciplinary Committee for consideration of possible disciplinary action.

Although you are encouraged to share your views and course-relevant resources with your classmates, NEVER show them any of your own written work (drafts or completed assignments). Things other people wrote (whether published or unpublished) may be used in your assignments only with proper acknowledgement and referencing. Neither may you use materials submitted for another course without proper acknowledgement (This is called self-plagiarism).

All acts of dishonesty in any work constitute academic misconduct. This includes, but is not limited to cheating, plagiarism, copying other students' work, and abetting to any of the above. Any academic misconduct will subject students to a FAILING grade in this course. You should consult with this webpage for avoiding plagiarism: <http://www.hku.hk/plagiarism>

Department of Psychology has formulated departmental policies/guidelines on student misconduct. Visit the website at <https://psychology.hku.hk/useful-information-to-current-students/> for more information.

The first tutorial will cover more on this issue.

| Class# | Date | Contents | Readings | Tutorials | Assignments | |
|--------|--------|---|----------------------------------|---|---|--|
| 1 | 4 Sep | Overview of the research process <i>Problem 1: What should you look for in a research paper?</i> | RMAS 7-24 Journal articles | - | | |
| 2 | 11 Sep | <i>Problem 2: What to and what not to do with our subjects</i> Describing data | Ch.1,2 RMAS 30-54 | Plagiarism and the APA style Exercise – reading a short research article | | |
| 3 | 18 Sep | Sampling and distributions | Ch. 3,4, 5 | Introduction to SPSS | | |
| 4 | 25 Sep | Basics of inferential statistics | Ch. 5, 7 | Exploring data with graphs (Histogram, Kurtosis, Skewness) | | |
| | 2 Oct | [No class – Day after mid-autumn festival] | | | | |
| 5 | 9 Oct | Hypothesis testing with unknown population parameters | Ch. 6, 7, 8 | One-sample test with known population mean | | |
| 6 | 16 Oct | <i>Problem 3: How large should our sample size be?</i> Type 1 error, Effect size, sample size, and power | Ch. 7, 9 | Briefing on the Group project From groups before you come! | A1 due | |
| | 23 Oct | Reading Week (No Class) | | | | |
| 7 | 30 Oct | Correlation and Simple Regression I | Ch. 12 | Running t-test with SPSS I | | |
| 8 | 6 Nov | Correlation and Simple Regression II <i>Problem 4: What defines a good research?</i> | Ch. 12 | Running t-test with SPSS II | | |
| 9 | 13 Nov | Measurement reliability & Measurement validity | RMAS 58-74 Journal articles | Correlation and Simple regression | | |
| 10 | 20 Nov | Research design: Internal validity & External validity | RMAS 226-243 Journal articles | | A2 due | |
| 11 | 27 Nov | Lab test | | | | |
| 12 | 4 Dec | Online Final Test (Open book) | | | Group project due (Dec 7 th) | |