

**City University of Hong Kong  
Course Syllabus**

**offered by Department of Architecture and Civil Engineering  
with effect from Semester A 2017/18**

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**Part I Course Overview**

|                                                              |                                                                                                                                                                                                         |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course Title:</b>                                         | Professional Research Methods                                                                                                                                                                           |
| <b>Course Code:</b>                                          | CA5603                                                                                                                                                                                                  |
| <b>Course Duration:</b>                                      | 1 Semester<br>(Some courses offered in Summer Term may start a few weeks earlier than the normal University schedule. Please check the teaching schedules with CLs before registering for the courses.) |
| <b>Credit Units:</b>                                         | 3                                                                                                                                                                                                       |
| <b>Level:</b>                                                | P5                                                                                                                                                                                                      |
| <b>Medium of Instruction:</b>                                | English                                                                                                                                                                                                 |
| <b>Medium of Assessment:</b>                                 | English                                                                                                                                                                                                 |
| <b>Prerequisites:</b><br><i>(Course Code and Title)</i>      | Nil                                                                                                                                                                                                     |
| <b>Precursors:</b><br><i>(Course Code and Title)</i>         | Nil                                                                                                                                                                                                     |
| <b>Equivalent Courses:</b><br><i>(Course Code and Title)</i> | BC5603 Professional Research Methods                                                                                                                                                                    |
| <b>Exclusive Courses:</b><br><i>(Course Code and Title)</i>  | Nil                                                                                                                                                                                                     |

## Part II Course Details

### 1. Abstract

To inspire the students a thorough understanding of the basic philosophy and requirements of research works in terms of concepts, methodology, logic thinking and importance of presentation.

### 2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

| No. | CILOs                                                                                                     | Weighting<br>(if applicable) | Discovery-enriched curriculum related learning outcomes (please tick where appropriate) |    |    |
|-----|-----------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------|----|----|
|     |                                                                                                           |                              | A1                                                                                      | A2 | A3 |
| 1.  | equip the technique for handling the dissertation with confidence;                                        |                              | ✓                                                                                       | ✓  |    |
| 2.  | identify and reflect the basic foundation of scientific research;                                         |                              |                                                                                         | ✓  |    |
| 3.  | conduct the research work rigorously and accurately;                                                      |                              |                                                                                         | ✓  |    |
| 4.  | actually implement the knowledge and produce a small piece of research work without detailed supervision. |                              |                                                                                         | ✓  | ✓  |
|     |                                                                                                           | 100%                         |                                                                                         |    |    |

#### A1: Attitude

*Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.*

#### A2: Ability

*Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.*

#### A3: Accomplishments

*Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.*

### 3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

| TLA       | Brief Description                                                      | CILO No. |   |   |   | Hours / week (if applicable) |
|-----------|------------------------------------------------------------------------|----------|---|---|---|------------------------------|
|           |                                                                        | 1        | 2 | 3 | 4 |                              |
| Lectures  | On the topics related to research methodologies                        | ✓        | ✓ | ✓ |   |                              |
| Workshops | In class workshops to teach student learn tools for their dissertation | ✓        | ✓ | ✓ |   |                              |
| Project   | Sample research work for student to implement the knowledge            | ✓        | ✓ | ✓ | ✓ |                              |

|                                  |                                                                                          |
|----------------------------------|------------------------------------------------------------------------------------------|
| Semester Hours:                  | 3 hours per week                                                                         |
| Lecture/Tutorial/Laboratory Mix: | Lecture (-); Tutorial (-); Laboratory (-)                                                |
|                                  | 3 hrs/wk for the first 3 weeks, workshop and student presentations for the last 2 weeks. |

### 4. Assessment Tasks/Activities

(ATs are designed to assess how well the students achieve the CILOs.)

| Assessment Tasks / Activities | CILO No. |   |   |   | Weighting | Remarks |
|-------------------------------|----------|---|---|---|-----------|---------|
|                               | 1        | 2 | 3 | 4 |           |         |
| Continuous Assessment: 100%   |          |   |   |   |           |         |
| Coursework                    | ✓        | ✓ | ✓ | ✓ | 20%       |         |
| Discussion in class           | ✓        | ✓ | ✓ |   | 20%       |         |
| Research Summary              | ✓        | ✓ | ✓ | ✓ | 20%       |         |
| Term projects                 | ✓        | ✓ | ✓ | ✓ | 40%       |         |
| Examination: 0%               |          |   |   |   |           |         |
|                               |          |   |   |   | 100%      |         |

## 5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

| Assessment Task     | Criterion                                                                                              | Excellent<br>(A+, A,<br>A-) | Good<br>(B+, B,<br>B-) | Fair<br>(C+, C,<br>C-) | Marginal<br>(D)/ Pass<br>(P) on<br>P/F basis | Failure<br>(F)                    |
|---------------------|--------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|------------------------|----------------------------------------------|-----------------------------------|
| Coursework          | ABILITY to UNDERSTAND, ANALYZE, and DISCUSS research articles                                          | High                        | Significant            | Moderate               | Basic                                        | Not even reaching marginal level  |
| Discussion in class | ABILITY to UNDERSTAND, ANALYZE, and RESPONSE to the in-class discussion                                | High                        | Significant            | Moderate               | Basic                                        | Not even reaching marginal levels |
| Research Summary    | ABILITY to UNDERSTAND, ANALYZE, and DISCUSS research articles on the topics                            | High                        | Significant            | Moderate               | Basic                                        | Not even reaching marginal levels |
| Term projects       | ABILITY to UNDERSTAND, ANALYZE, and DISCUSS the implement of research methodology in research projects | High                        | Significant            | Moderate               | Basic                                        | Not even reaching marginal levels |

**Part III Other Information** (more details can be provided separately in the teaching plan)

**1. Keyword Syllabus**

*(An indication of the key topics of the course.)*

Philosophy of research; documentation; word processing; presentation; ethics of research; research support; creativity; research types; measurement.

**2. Reading List**

**2.1 Compulsory Readings**

*(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)*

|    |     |
|----|-----|
| 1. | Nil |
|----|-----|

**2.2 Additional Readings**

*(Additional references for students to learn to expand their knowledge about the subject.)*

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|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Fellows, R., & Liu A. (eds), 2008, Research Methods for Construction. (3rd Edition). Blackwell Science, Oxford, (TH213.5 .F45 2008)                              |
| 2. | Greenfield, T. (ed.), 2002, Research Methods for Postgraduates, Arnold, London, (Q180.A1 R47 2002)                                                               |
| 3. | McBurney, D. H. 2001, Research Methods (5th Edition), Wadsworth Thomson Learning, Belmont, (BF181 .M22 2001)                                                     |
| 4. | Kumar, R. 2011, Research Methodology: A Step-by-step Guide for Beginners (3rd Edition), SAGE, Los Angeles, London, (Q180.55.M4 K85 2011)                         |
| 5. | Kothari, C.R. 2004, Research Methodology: Methods and Techniques (2nd Revised edition), New Age International (P) Ltd., Publishers, New Delhi, (H62 .K68 2004eb) |
| 6. | San Filippo, R.D. 1991, Scientific vs Pseudoscientific Methods, [online]. Available at: [Accessed 11 March 2010].                                                |