Course Syllabus (Academic Year 2022)

## School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

1. Course No. and Title : KAID271 Statistics and Data Analysis

Credit (study hours) : 3(3-0-6)
2. Program Name
: Bachelor of Accountancy Program
3. Course Module : Major Required Courses

Pre/co-requisite
4. Class Semester$1^{\text {st }}$ Semester $2^{\text {nd }}$ Semester Academic Year 2022
5. Class Schedule \& Venue : M 09:00-12:00, Room L-316, Laboratory Building, WebEx

MUKA e-learning KAID271_65
6. Class Coordinator : Dr. Nuengruithai Tharawatcharasart Contact No. : $\qquad$ Email : Nuengruithai.tha@mahidol.edu

## 7. Course Description

Application of basic statistics for business analysis. It consists of probability distributions and random variables, descriptive statistics, parameter estimation, hypothesis testing, analysis of variance, chi-square test, regression and correlation analysis and application of case studies.
8. Course Objectives / Course Learning Outcomes (CLOs)

| No. | Objectives / CLOs | Expected Skills / Knowledge |  |  | PLOs |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Specific | Generic | Knowledge |  |
| 8.1 | To provide students with a better <br> understanding of statistics and business <br> statistics. |  |  |  |  |
| 8.2 | To provide students with business <br> problem-solving skills by statistics. |  |  |  |  |
| 8.3 | To provide students able to use statistical <br> software packages |  |  |  |  |

9. Class Instructor List
9.1 Name : Name : Dr. Nuengruithai Tharawatcharasart (NT) Contact No. :

Email : Nuengruithai.tha@mahidol.edu
9.2 Name : Name: Dr. Kwanchanok Chansawang (KC)

| Week | Date | Contents | CLOs | Teaching \& Learning | Instructor's <br> Names |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{aligned} & 9 \text { Jan } 23 \\ & \text { (เช้า) } \end{aligned}$ | Introduction, Descriptive statistics | 1 | Lecture/Discussion | NT |
| 2 | $\begin{gathered} 9 \text { Jan } 23 \\ \text { (บ่าย) } \end{gathered}$ | Distribution of probability and random variables $\mathrm{P}(32-45)$ | 1 | Lecture/Discussion | NT |
| 3 | $23 \text { Jan } 23$ <br> (เช้า) | Distribution of probability and random variables P (4651)+แบบฝึกหัดท้ายบท | 1 | Lecture/Discussion | NT and KC |
| 4 | 23 Jan 23 | การใช้ Data Studio | 1 | Lecture/Discussion | NT and KC |
| 5 | 6 Feb 23 | Parameter estimation | 1 | Lecture/Discussion | NT |
| 6 | 6 Feb 23 | แบบฝึกหัดท้ายบท | 1 | Exercise | NT |
| 7 | 20 Feb 23 | Hypothesis testing | 1 | Lecture/Discussion | NT |
| 8 | 20 Feb 23 | แบบฝึกหัดท้ายบท |  | Exercise | NT |
| 9 | Mid-term Examination |  |  |  |  |
| 10 | 13 Mar 23 | Chi-square test | 1 | Lecture/Discussion | NT |
| 11 | 13 Mar 23 | Variance analysis |  | Lecture/Discussion | NT |
| 12 | 27 Mar 23 | SPSS Test Hypothesis |  | Exercise | NT |
| 13 | 27 Mar 23 | SPSS ANOVA |  | Exercise | NT |
| 14 | 10 Apr 23 | Regression and correlation analysis |  | Lecture/Discussion | NT |
| 15 | 10 Apr 23 | Time series analysis |  | Lecture/Discussion | NT |
| 16 | 24 Apr 23 | Application and Presentation 1 |  | Reflection | NT and KC |
| 17 | 24 Apr 23 | Application and Presentation 2 |  | Reflection | NT and KC |
| 18 | Final Examination |  |  |  |  |

10. Course Assessment

| No. | Methods / Activities | Regulations | CLOs | Week | Weight <br> Distribution (\%) |
| :---: | :--- | :--- | :--- | :---: | :---: |
| 11.1 | Mid-term exam | Writing examination (Open book) | $8.1,8.2$ | 9 | 35 |
| 11.2 | Final exam | Writing examination (Open book) | $8.1,8.2$, | 17 | 35 |
| 11.3 | Reports / Assignments | Complete and On time | 8.3 | $8.1,8.2$, | $2-16$ |

11. Grading System
$\boxed{\square}$ Criterion-referenced evaluation

| Grade | Score | Grade | Score | Grade | Score | Grade | Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\geq 80 \%$ | B | $70-74.99 \%$ | $C$ | $60-64.99 \%$ | $D$ | $50-54.99 \%$ |
| B+ | $75-79.99 \%$ | $C+$ | $65-69.99 \%$ | D+ | $55-59.99 \%$ | $F$ | $<50 \%$ |

$\boxed{\square}$ Norm-referenced evaluation
*If use both criterion and norm-referenced evaluation, please tick two boxes.

## 12. References

12.1 Brook, R. J., And Arnold, G. C. (1985). Applied Regression Analysis and Experimental Design. New

York and Basel : Marcel Dekker, Inc.
12.2 Johnson RA. 1992. Statistics: principles and methods. 3rd ed. John Wiley \& Sons.13.3
12.3 Kuehl, R. O.(1994). Statistical Principles of Research Design and Analysis. California : Duxbury Press.
13.4 Weiss NA. 1995. Introductory statistics. 4th ed. Addison-Wesley.

