

# Chiang Kai Shek College

## 菲律濱中正學院

### CKS COLLEGE INSTITUTIONAL VISION-MISSION

Education for excellence, geared towards a united Filipino-Chinese community equipped with the basic academic skills, wisdom, and the virtues of propriety, righteousness, incorruptibility and honor, committed to nation building and international concern.

### CORE VALUES

*Chiang Kai Shek College challenges stakeholders to lead their lives in accordance to the four Confucian virtues:*

- Lǐ (禮, propriety, proper rite)
- Yì (義, righteousness or justice)
- Lǎn (廉, incorruptibility)
- Chǐ (恥, honor, sense of shame)

*Concomitant to attaining these values are the cultivation and sustenance of the holistic approach to education, an all-around development in five domains:*

- Dé (德, moral)
- Zhì (智, intellectual)
- Tǐ (體, physical)
- Qún (群, team spirit)
- Měi (美, aesthetic)

*Based on these Confucian moral values, CKS College simplifies its Core Values as follows:*

- Relevant Education
- Good Character
- Committed Service

### COLLEGE VISION STATEMENT

To become the preferred Filipino-Chinese college that offers high quality, learner-centered, and outcome-based education to future entrepreneurs, professionals, and managers in the fields of business, IT, and education.

### COLLEGE MISSION STATEMENT

CKS College is a preeminent Filipino-Chinese college that seeks to grow, educate, and train future entrepreneurs and leaders who will make significant contributions to society.

It endeavors to create a learning environment that balances theory with practice, so as to equip students with the necessary knowledge, skills, and values that will enable them to succeed in their respective fields.

In partnership with CKS College faculty, staff, and administration, and through stronger linkages with various organizations, CKSC alumni, businessmen, and professionals, it shall continuously make its degree programs more adaptive and relevant to changing educational, social, technological, and business environments, thereby bridging the gap between academe and industry.

It shall supply various sectors with capable, competent, and pro-active educators, accountants, managers, marketers, IT experts, and entrepreneurs who shall be known for their commitment, excellence, passion, and integrity.

### CKS COLLEGE INSTITUTIONAL OBJECTIVES

1. To train bright and capable leaders of society
2. To prepare people for the task of building a better and stronger nation
3. To harvest and share great ideas from Eastern and Western cultures
4. To enhance friendship and understanding between Filipinos and Chinese

### PROGRAM OUTCOMES (PO)

#### **1. Common to All Programs**

- 1.1 Recognize and examine the trends and developments in one's field of specialization.
- 1.2 Effectively communicate orally and in writing using English, Filipino, mother tongue language, and an appropriate Foreign Language required by the industry.
- 1.3 Work effectively and independently in multi-disciplinary and multi-cultural teams.
- 1.4 Act in recognition of professional, social, and ethical responsibilities.
- 1.5 Preserve and promote Filipino historical heritage and cultural values.
- 1.6 Engage in ongoing, voluntary, and self-motivated pursuit of knowledge (lifelong learning).
- 1.7 Demonstrate the values of propriety, righteousness, incorruptibility, and honor.

#### **2. Common to the Business and Management Discipline**

- 2.1 Perform the basic management functions, such as planning, organizing, staffing, leading, and controlling.
- 2.2 Apply proper decision making tools to critically, analytically, and creatively solve problems and drive results.
- 2.3 Apply the basic concepts that underlie each of the functional areas of business (marketing, finance, human resources management, production and operations management, information technology, and strategic management) and employ these concepts in various business situations.
- 2.4 Apply information and communication technology (ICT) skills as required by the business environment.
- 2.5 Work effectively with other stakeholders and manage conflict in the workplace.
- 2.6 Employ entrepreneurial skills in planning and implementing business activities.
- 2.7 Demonstrate high personal moral and ethical standards, organizational citizenship, and corporate social responsibility.

#### **3. Specific to the Accountancy Program**

- 3.1 Resolve business issues and problems, with a global and strategic perspective using their knowledge and technical proficiency in the areas of financial accounting & reporting, cost accounting & management, management accounting & control, taxation, and accounting information systems;
- 3.2 Conduct accountancy research through independent studies of relevant literature and appropriate use of accounting theory and methodologies;
- 3.3 Employ technology as a business tool in capturing financial and non-financial information, generating reports and making decisions;
- 3.4 Apply knowledge and skills that will enable them to successfully respond to various types of assessments (including professional and certifications);
- 3.5 Confidently maintain a commitment to good corporate citizenship, social responsibility and ethical practice in performing functions as an accountant.
- 3.6 Use financial & non-financial information to conduct sustainability and strategic audit of various business organizations.

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### COURSE SYLLABUS

<b>Course Code</b> : ACSTAT <b>Course Title</b> : Statistical Analysis with Software Application <b>Credit</b> : 3.0 Units <b>Instructor</b> : _____ <b>Class Day</b> : _____ <b>Class Time</b> : _____ <b>Classroom</b> : _____ <b>Consultation Schedule</b> : _____	<b>Course Description:</b>  This is a 3-unit course on the use of basic principles of statistics as applied to accountancy, business and management. Students are initially taught the fundamentals of descriptive statistics such as measures of central tendency and variation, probability and probability distributions. They are likewise taught the basics of inferential statistics such as interval estimation, hypothesis testing, ANOVA, Chi-square, z-test, t-test, as well as regression and correlation analysis.
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Course Outcomes	Program Outcomes Addressed by the Course Outcomes
Understand the basic principles of descriptive and inferential statistics as applied to the context of business and management.	2.2 Apply proper decision making tools to critically, analytically, and creatively solve problems and drive results.
Use the appropriate statistical treatment depending on the nature of variables or problem at hand.	2.2 Apply proper decision making tools to critically, analytically, and creatively solve problems and drive results.
Use available software packages such as Microsoft Excel and SPSS in analyzing and interpreting data.	3.3 Employ technology as a business tool in capturing financial and non-financial information, generating reports and making decisions;
Prepare a simple statistical research paper that applies the basic tools learned in the course	3.1 Resolve business issues and problems, with a global and strategic perspective using their knowledge and technical proficiency in the areas of financial accounting & reporting, cost accounting & management, management accounting & control, taxation, and accounting information systems; 3.2 Conduct accountancy research through independent studies of relevant literature and appropriate use of accounting theory and methodologies; 3.3 Employ technology as a business tool in capturing financial and non-financial information, generating reports and making decisions;
Appreciate the use of statistics in business decision-making and research.	3.2 Conduct accountancy research through independent studies of relevant literature and appropriate use of accounting theory and methodologies;
Appreciate the relevance of CKSian values in conducting statistical research.	2.7 Demonstrate high personal moral and ethical standards, organizational citizenship, and corporate social responsibility.

**Course Requirements:**

- Class Participation. Attendance to all lectures and required alternative activities is highly encouraged. Students are expected to actively participate in discussions and to be respectful of each other’s views, opinions, and insights. It is part of the student’s responsibility to prepare for each class session by reading the assigned materials (textbook, references, journals, websites, hand-outs, etc.), as indicated in the Course Plan.
- Quizzes. Pre-discussion and post-discussion quizzes shall help assess student learning on a more regular basis. Such quizzes are unannounced. Pre-discussion quizzes shall help assess how well the student prepared for the session. They shall help students develop lifelong learning skills. Post-discussion quizzes shall help assess how much students learned from lectures and classroom discussions.
- Long Exams. Two long exams shall be administered before midterms and another two shall be administered after midterms. The schedule for the long exams are indicated in the Course Plan.
- Midterm & Final Exams. The Midterm and Final Exams shall be comprehensive and shall be administered as per the schedule set by the CKS College HEI Deans’ Council.
- Case Analysis. Students shall be assigned to groups and each group shall be assigned a case to work on. Written case reports shall be submitted prior to midterms. Students are required to follow the format provided. The schedules for case presentations and defense are indicated in the Course Plan. Cases are selected and assigned to help students gain a deeper understanding of concepts learned as they observe, analyze, and critique how companies design, implement, and monitor strategies.
- Project (Statistical Research). The end-of-term project is an important course output which will give the student an opportunity to synthesize and apply various lessons learned in the course. Proper presentation skills and proper use of presentation materials should also be exhibited during the oral presentation and defense.

Grading System:		
Midterm Class Standing	=	Quizzes & Exams *70% + Recitation *30%
Midterm Grade	=	Midterm Class Standing *60% + Midterm Exam * 40%
Final Class Standing	=	Quizzes & Exams Before & After Midterms * 50% + Recitation Before & After Midterms * 20% + Project or Research Output *30%
Final Grade	=	Final Class Standing * 60% + Midterm Exam * 20% + Final Exam * 20%

Grade Score Equivalent (GSE):			
Rating	GSE	Rating	GSE
98 to 100	1.00	77 to 79	2.75
95 to 97	1.25	75 to 76	3.00
92 to 94	1.50	< 75	5.00
89 to 91	1.75	No Grade	NG
86 to 88	2.00	Authorized	AW
83 to 85	2.25	Withdrawal	
80 to 82	2.50		

**Textbook:**

- Anderson, D.R., Sweeney, D.J., Williams, T.A. (2015). *Modern business statistics with Microsoft Office Excel* (5th ed.). Stamford, CT: Cengage Learning.

**References:**

- Siegel, A.F. (2016). *Practical business statistics* (7th ed.). San Diego, CA: Academic Press Elsevier.
- Waller, D.L. (2017). *Statistics for business* (2nd ed.). New York, NY: Routledge.
- Bueno, D. (2016). *Introduction to statistics: concepts and applications in research*. Great Books Trading.
- De Belen, R. (2015) *Basic statistics for research* (1st ed.) Wiseman’s Book Trading
- Calmorin, L. (2016) *Research and thesis writing with statistics computer application*. Rex Book Store

**Course Plan:**

Week	Inclusive Date/s	Learning Outcome/s	Topic/s	Reference/s	Teaching-Learning Activities	Assessment Methods
1		<ul style="list-style-type: none"><li>• Define statistics and describe its branches</li><li>• Differentiate the different levels of data measurement</li><li>• Differentiate qualitative vs quantitative data</li><li>• Appreciation of the use of statistics in business</li></ul>	INTRODUCTION TO STATISTICS <ul style="list-style-type: none"><li>• <i>Definition of statistics</i></li><li>• <i>Branches of statistics</i></li><li>• <i>Data vs Information</i></li><li>• <i>Data and Statistics</i></li><li>• <i>Levels of Data Measurement</i></li><li>• <i>Measurement Scales of Data</i></li><li>• <i>Qualitative vs Quantitative</i></li><li>• <i>Uses of applications of statistics in business</i></li></ul>	<ul style="list-style-type: none"><li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 1</li></ul>	<ul style="list-style-type: none"><li>• Lecture</li><li>• Class Discussion</li></ul>	<ul style="list-style-type: none"><li>• Recitation</li><li>• Quiz</li></ul>
2		<ul style="list-style-type: none"><li>• Manually create graphs and charts applicable to a set of data or variables</li><li>• Create graphs and charts proficiently using Microsoft Excel</li></ul>	DESCRIPTIVE STATISTICS: <ul style="list-style-type: none"><li>• <i>Graphical and tabular presentation of data</i></li><li>• <i>Frequency Distributions</i></li></ul>	<ul style="list-style-type: none"><li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 2</li></ul>	<ul style="list-style-type: none"><li>• Lecture</li><li>• Hands on Exercises</li></ul>	<ul style="list-style-type: none"><li>• Recitation</li><li>• Quiz</li></ul>
3		<ul style="list-style-type: none"><li>• Calculate the mean, median and mode for group and ungrouped data using manual, calculator and MS Excel</li><li>• Interpret the results of the measure of central location given the nature of the variable and data set</li></ul>	DESCRIPTIVE STATISTICS <ul style="list-style-type: none"><li>• <i>Measures of Central Location</i></li></ul>	<ul style="list-style-type: none"><li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 3</li></ul>	<ul style="list-style-type: none"><li>• Lecture</li><li>• Classroom exercises</li><li>• Seat works</li></ul>	<ul style="list-style-type: none"><li>• Recitation</li><li>• Quiz</li></ul>
4		<ul style="list-style-type: none"><li>• Calculate the variance, standard deviation, range and interquartile range, coefficient of variation for a set of data</li><li>• Calculate and interpret the coefficient of skewness</li><li>• Identify outliers given a data set</li><li>• Generate the 5 number summary for a set of data</li></ul>	DESCRIPTIVE STATISTICS <ul style="list-style-type: none"><li>• <i>Measures of Central Variability and skewness</i></li><li>• <i>Five Number Summary</i></li></ul>	<ul style="list-style-type: none"><li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 3</li></ul>	<ul style="list-style-type: none"><li>• Lecture</li><li>• Class Discussion</li></ul>	<ul style="list-style-type: none"><li>• Recitation</li><li>• Quiz</li></ul>
5		<ul style="list-style-type: none"><li>• Calculate and interpret the covariance and correlation coefficient for a set of variables</li></ul>	DESCRIPTIVE STATISTICS <ul style="list-style-type: none"><li>• <i>Measures of Association</i></li></ul>	<ul style="list-style-type: none"><li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 3</li></ul>	<ul style="list-style-type: none"><li>• Lecture</li><li>• Class Discussion</li></ul>	<ul style="list-style-type: none"><li>• Recitation</li><li>• Quiz</li></ul>

Week	Inclusive Date/s	Learning Outcome/s	Topic/s	Reference/s	Teaching-Learning Activities	Assessment Methods
6		<ul style="list-style-type: none"> <li>Understanding of the basic rules of probability using one's knowledge of combinatorics.</li> <li>Skillfully distinguish permutations from combinations.</li> <li>Calculate the probability of an event using the rules of probability.</li> </ul>	<b>PROBABILITY</b> <ul style="list-style-type: none"> <li><i>Factorial notation</i></li> <li><i>Fundamental Principle of Counting</i></li> <li><i>Permutation and Combination</i></li> <li><i>Probability</i></li> <li><i>Rules of Probability</i></li> <li><i>Addition Rule and Multiplication Rule</i></li> </ul>	<ul style="list-style-type: none"> <li><b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 4</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Recitation</li> <li>Quiz</li> </ul>
7-8		<ul style="list-style-type: none"> <li>Distinguish a discrete from continuous probability distribution</li> <li>Calculate the mean and variance of probability distributions</li> </ul>	<b>PROBABILITY DISTRIBUTIONS</b> <ul style="list-style-type: none"> <li><i>Discrete probability distribution</i></li> <li><i>Continuous probability distributions</i></li> <li><i>Mean and variance of probability distributions</i></li> </ul>	<ul style="list-style-type: none"> <li><b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 5 &amp; 6</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class Discussion</li> <li>Seat works</li> <li>Board works</li> </ul>	<ul style="list-style-type: none"> <li>Recitation</li> <li>Quiz</li> </ul>
9		<b>M I D T E R M E X A M I N A T I O N</b>				
10		<ul style="list-style-type: none"> <li>Determine the sampling distribution of the mean\</li> <li>Apply the central limit theorem to word problems</li> </ul>	<b>SAMPLING DISTRIBUTION OF THE MEAN</b> <ul style="list-style-type: none"> <li><i>Central Limit Theorem</i></li> </ul>	<ul style="list-style-type: none"> <li><b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 7</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Recitation</li> <li>Quiz</li> </ul>
11		<ul style="list-style-type: none"> <li>Estimate the population mean and population proportion using 0.10, 0.05 and 0.01 levels of significance</li> </ul>	<b>INTERVAL ESTIMATION</b> <ul style="list-style-type: none"> <li><i>Population Mean</i></li> <li><i>Population Proportion</i></li> </ul>	<ul style="list-style-type: none"> <li><b>Suggested Readings</b> Anderson, Sweeney and Williams, Chapter 8</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Recitation</li> <li>Quiz</li> </ul>
12-13		<ul style="list-style-type: none"> <li>Perform hypothesis tests on a population mean and population proportion</li> </ul>	<b>HYPOTHESIS TESTING</b> <ul style="list-style-type: none"> <li><i>Population Mean</i></li> <li><i>Population Proportion</i></li> <li><i>Difference between means</i></li> </ul>	<ul style="list-style-type: none"> <li><b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 9 and 10</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Recitation</li> <li>Quiz</li> </ul>

Week	Inclusive Date/s	Learning Outcome/s	Topic/s	Reference/s	Teaching-Learning Activities	Assessment Methods
			<ul style="list-style-type: none"> <li>• <i>Difference between proportions</i></li> <li>• <i>Type I and II errors</i></li> </ul>			
14		<ul style="list-style-type: none"> <li>• Conduct hypothesis testing of the Goodness of Fit and Independence using a set of data</li> <li>• Determine the equality of three or more population proportions</li> </ul>	HYPOTHESIS TESTING <ul style="list-style-type: none"> <li>• <i>Goodness of Fit</i></li> <li>• <i>Test of independence</i></li> <li>• <i>Test of equality of three or more population proportions</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Suggested Readings</b> Anderson, Sweeney and Williams, Chapter 12</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Classroom Exercises</li> <li>• Seat works</li> <li>• Board works</li> </ul>	<ul style="list-style-type: none"> <li>• Recitation</li> <li>• Quiz</li> </ul>
15		<ul style="list-style-type: none"> <li>• Differentiate a one-way ANOVA from a two-way ANOVA</li> <li>• Conduct a hypothesis testing on variances</li> </ul>	HYPOTHESIS TESTING <ul style="list-style-type: none"> <li>• <i>One-way ANOVA</i></li> <li>• <i>Two-way ANOVA</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 13</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Classroom Exercises</li> <li>• Seat works</li> <li>• Board works</li> </ul>	<ul style="list-style-type: none"> <li>• Recitation</li> <li>• Quiz</li> </ul>
16 - 17		<ul style="list-style-type: none"> <li>• Run a simple and linear multiple regression on a set of data and interpret the results</li> <li>• Use MSEXcel in a regression analysis</li> </ul>	LINEAR REGRESSION <ul style="list-style-type: none"> <li>• Simple linear regression</li> <li>• Multiple linear regression</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Suggested Readings:</b> Anderson, Sweeney and Williams, Chapter 14 and 15</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Classroom exercises</li> <li>• Seat works</li> <li>• Board works</li> </ul>	<ul style="list-style-type: none"> <li>• Recitation</li> <li>• Quiz</li> </ul>
18		<b>FINAL EXAMINATION</b>				

#### Course Policies:

Academic Integrity	<p>CKSian values include propriety, righteousness, incorruptibility, and honor. Students should exercise such values both inside and outside the classroom. Students are expected to value the importance of education and should recognize that such involves hard work and sacrifice.</p> <p>Academic dishonesty— whether in the form of plagiarism (intentional or unintentional), cheating in exams and assignments, non-contribution to the group project, or the like— shall not be tolerated and shall strictly be subjected to the penalties indicated in the CKS College Student Handbook.</p>
Tardiness	<p>A student who incurs more than 12 hours of absences or twenty (20) percent of the prescribed number of class periods during the semester would be given a failing grade and given no credit for the course or subject. A student may be accepted in class even if he/she arrives late provided that it is not more than 25% of the class/session. A recorded tardiness is considered 1/3-absence, which if added to two other recorded tardiness will be equivalent to a full absence recorded against a student.</p>
Use of Mobile Devices	<p>Once inside the classroom, the student is expected to focus on his role as a learner. Distractions should be avoided. Students are not allowed to use mobile phones, tablets, or other gadgets in class. Mobile phones should be switched off or placed in silent mode.</p>
Make-Up Quizzes/ Exams	<p>No make-up quiz shall be given to a student who is absent for the class period. For pre-discussion quizzes administered at the beginning of the class period, students are not allowed to enter the classroom in the middle of the quiz. Latecomers are advised to wait outside the classroom until the students present are finished taking the quiz. No make-up quiz shall be given to latecomers. For long exams, make-up exams may be given only upon presentation of an approved Application for Excuse Absence.</p> <p>For students who are unable to take the Midterm or the Final Exams, an approved Application for Excuse Absence and an approved Application for Special Examination should be submitted to the instructor before the make-up exam can be scheduled and administered.</p>

Group Contribution in Project/s	The groupings for the project/s shall be determined at the beginning of the semester. Once assigned to a group, students shall not, under any circumstance, be allowed to switch groups. Students are expected to exercise teamwork and contribute meaningfully to the group project. A duly accomplished peer evaluation form shall be submitted by each group member along with the group's written report.
Consultation	If needed, students are highly encouraged to schedule consultation with the faculty within the consultation schedule provided. Such shall be conducted at the consultation area in the CKS College Faculty Room.
Others	Both student and faculty are responsible for maximization of class contact hours to ensure satisfaction of course learning outcomes. Once the class period has started, no one is allowed to leave the classroom, unless officially requested by the Administration Office and/or allowed by the instructor. Leaving the classroom at any time within the scheduled class period, whether for short or extended periods of time, is strongly discouraged. Students should go to the toilet before or after class, or during the scheduled break within 3-hour class periods.

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