DE LA SALLE UNIVERSITY
College of Science
Department of Mathematics

STATPAC – *Statistical Packages*
Prerequisite: INTSTA2   *Prerequisite to:*

Instructor:_____   Contact details:_____
Consultation Hours:_____   Class Schedule and Room:_____

Course Description

Statistical Package (STATPAC) is a course, designed for Statistics/Mathematics majors, to familiarize students on the use of different statistical software (Microsoft Excel/PHSTAT/MegaStat, Statistica and SAS) for creating and managing databases, as well as, conducting simple statistical data analyses.

Learning Outcomes

On completion of this course, the student is expected to present the following learning outcomes in line with the Expected Lasallian Graduate Attributes (ELGA)

ELGA	Learning Outcome
Critical and Creative Thinker Effective Communicator Lifelong Learner Service-Driven Citizen	At the end of the course, the student will apply appropriate statistical concepts and processes using different statistical software in solving various conceptual and real-world problems.

Final Course Output

As evidence of attaining the above learning outcomes, the student is required to submit the following during the indicated dates of the term.

Learning Outcome	Required Output	Due Date
At the end of the course, the student will apply appropriate statistical concepts and processes using different statistical software in solving various conceptual and real-world problems.	An inquiry-based group project highlighting the use of different statistical software in managing and analyzing data in different real-life situations	Week 13

Rubric for assessment

CRITERIA	EXEMPLARY 4	SATISFACTORY 3	DEVELOPING 2	BEGINNING 1
Formulation of the Research Problem and Objectives (10%)	Research problem and objectives are clearly defined and significant; demonstrates evidence that the research problem was researched and designed well.	Research problem and objectives are clearly defined and significant.	Research problem is clearly defined but some objectives are insignificant.	Research problem and objectives are vague and insignificant.
Correct Application of the Statistical Concepts (25%)	Statistical analyses are appropriate with correct interpretations and relevant conclusions.	Statistical analyses are appropriate with correct interpretations.	Some statistical analyses are inappropriate.	Statistical analyses are inappropriate.
In-Depth Use of Statistical Software (40%)	Appropriate data analyses using at least three different statistical software were conducted. Applications of statistical software are well-explained leading the readers to appreciate computer technology in managing and analyzing large databases.	Appropriate data analyses using at least 3 different statistical software were conducted	Data analyses have limited applications of statistical software.	Data analyses have incorrect applications statistical software.
Clarity and Organization of Written Report (10%)	Written report is organized logically and presented clearly with effective transitions.	Written report is organized logically and presented clearly.	Written report is organized and some discussions are not clear.	Written report is not organized.

Oral Presentation (15%)	Overall presentation is creative and well organized with innovative ideas.	Overall presentation is creative and well organized.	Overall presentation is organized.	Overall presentation is not organized.

Additional Requirements

Aside from the final output, the student will be assessed at other times during the term by the following:
- Quizzes
- Class Participation (seatwork and group exercises, homework, recitation)
- Computer hands-on exercises using SAS
- Final Examination

Grading System

	FOR STUDENTS with FINAL EXAM	
	with no missed quiz	*With one missed quiz*
Average of quizzes	60%	50%
Class Participation and Lab Exercises	10%	10%
Final exam	30%	40%

Scale:

95-100%	4.0
89-94%	3.5
83-88%	3.0
78-82%	2.5
72-77%	2.0
66-71%	1.5
60-65%	1.0
<60%	0.0

Learning Plan

LEARNING OUTCOME	TOPIC	WEEK NO.	LEARNING ACTIVITIES
At the end of the course, the student will apply appropriate statistical concepts and processes using different statistical software in solving various conceptual and real-world problems.	**1. MICROSOFT EXCEL (PhStat2)** 1.1 Introduction to Microsoft Excel / PHSTAT/MegaStat 1.2 Data management 1.3 Generation of Graphs 1.4 Basic statistical analysis	9 hours / Weeks 1-3	Prior knowledge and beliefs survey Concept mapping Library work Group discussion and presentations Computer laboratory activities Skills exercises Student self-assessment and reflection
	Quiz 1	1.5 hours / Week 3	
	2. STATISTICA 2.1 Introduction to Statistica 2.2 Data management 2.3 Tabular and graphical presentation of data 2.4 Descriptive statistics 2.5 Basic Statistical Analysis	12 hours / Weeks 4-7	
	Quiz 2	1.5 hours / Week 8	
	3. SAS 3.1 Introduction to SAS 3.2 Data Management 3.3 Tabular and graphical presentation of data 3.4 Descriptive statistics 3.5 Basic Statistical Analyses	13.5 hours / Weeks 9-12	
	Quiz 3	1.5 hours / Week 13	
	Learning Output	3 hours / Week 14	

References

Arcilla, R., Co, F., Ocampo, S. & Trevalles, R. (2012). *Statistical Literacy for Lifelong Learning*.
            Manila: ABIVA Publishing House, Inc
Delwiche, Lora D. Slaughter, and Susan J (2003) *The Little SAS Book: A Primer (3rd Edition)*. SAS Publishing
Walpole, et al. (2007), *Probability and Statistics for Engineers and Science (7th Edition)* Singapore: Pearson
            Education (Asia)

Online Resources

National Statistic Office. Accessed October 15, 2012 from: http://www.census.gov.ph/
Math Goodies. Accessed October 15, 2012 from: http://www/mathgoodies.com
http://www.ruf.rice.edu~lane/statsim/samplingdist/
Big Data Analytics, Enterprise Analytics, Data Mining Software, Statistical Analysis, Predictive Analtyics.
Accessed October 15, 2012 from:http://www/statsoft.com
Shodor: a National Resource for Computational Science Education. Accessed October 15, 2012 fom:
http://www.shodor.org

Class Policies

1. The required minimum number of quizzes for a 3-unit course is 3, and 4 for 4-unit course. No part of the final exam may be considered as one quiz.
2. Cancellation of the lowest quiz is not allowed even if the number of quizzes exceeds the required minimum number of quizzes.
3. As a general policy, no special or make-up tests for missed exams other than the final examination will be given. However, a faculty member may give special exams for
   A. approved absences (where the student concerned officially represented the University at some function or activity).
   B. absences due to serious illness which require hospitalization, death in the family and other reasons which the faculty member deems meritorious.
4. If a student missed two (2) examinations, then he/she will be required to take a make up for the second missed examination.
5. If the student has no valid reason for missing an exam (for example, the student was not prepared to take the exam) then the student receives 0% for the missed quiz.
6. Students who get at least 89% in every quiz are exempted from taking the final examination. Their final grade will be based on the average of their quizzes and other prefinal course requirements. The final grade of exempted students who opt to take the final examination will be based on the prescribed computation of final grades inclusive of a final examination. Students who missed and/or took any special/make-up quiz will not be eligible for exemption.
7. Learning outputs are required and not optional to pass the course.
8. Mobile phones and other forms of communication devices should be on silent mode or turned off during class.
9. Students are expected to be attentive and exhibit the behavior of a mature and responsible individual during class. They are also expected to come to class on time and prepared.
10. Sleeping, bringing in food and drinks, and wearing a cap and sunglasses in class are not allowed.
11. Students who wish to go to the washroom must politely ask permission and, if given such, they should be back in class within 5 minutes. Only one student at a time may be allowed to leave the classroom for this purpose.
12. Students who are absent from the class for more than 5 meetings will get a final grade of 0.0 in the course.
13. Only students who are officially enrolled in the course are allowed to attend the class meetings.

Approved by:

DR. ARTURO Y. PACIFICADOR, JR.
  Chair, Department of Mathematics