STATHE2 Statistical Theory 2
Prerequisite:
Prerequisite to:
Instructor:
Consultation Hours:
Contact details:
Class Schedule and Room:

## Course Description

A course in estimation of parameters and tests of hypotheses. Topics include order statistics, limiting distributions, methods of estimation, properties of estimators, hypothesis testing.

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)

|  | 2.5 Exponential Family of Distributions <br> 2.6 Location of Scale Invariance <br> 2.7 Bayesian Estimation |  |
| :---: | :---: | :---: |
|  | Quiz No. 2 | 2 hours / Week 8 |
|  | 3. Parametric Interval Estimation <br> 3.1 Definition of Confidence Interval <br> 3.2 Confidence Intervals <br> 3.2.1 Mean, Variance, Proportion One Population <br> 3.2.2 Mean, Variance, Proportion Two Populations | 4 hours / <br> Week 9 |
|  | 4. Hypothesis Testing <br> 1.1 Preliminaries on Testing Hypotheses <br> 1.2 The Neyman Pearson Lemma and the Most <br> Powerful Test <br> 1.3 Generalized Likelihood Ratio Tests <br> 1.4 Confidence Intervals and Hypothesis Tests | 8 hours <br> Weeks <br> 10-11 |
|  | Quiz No. 3 | 2 hours / <br> Week 12 |
|  | 5. Inquiry-based Group Project | 4 hours Week 13 |
|  | Final Examination | 2 hours <br> Week 14 |
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special/make-up quiz will not be eligible for exemption.
Learning outputs are required and not optional to pass the course.
Mobile phones and other forms of communication devices should be on silent mode or turned off during
class.
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.
Sleeping, bringing in food and drinks, and wearing a cap and sunglasses in class are not allowed.
Students who wish to go to the washroom must politely ask permission and, if given such, they should
be back in class within }5\mathrm{ minutes. Only one student at a time may be allowed to leave the classroom for
this purpose.
Students who are absent from the class for more than 5 meetings will get a final grade of 0.0 in the
course.
Only students who are officially enrolled in the course are allowed to attend the class meetings.
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Approved by:

## DR. ARTURO Y. PACIFICADOR, JR.

Chair, Department of Mathematics

