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| 2017-FPTU-L-01 | **KẾ HOẠCH TRIỂN KHAI HỌC PHẦN**  PLAN OF COURSE IMPLEMENTATION |

QUYNHON CAMPUS

**Tên học phần/***Course name:* Statistics & Probability - MAS291  
Xác suất thống kê

1. **Thời gian triển khai: Học kỳ Fall 2023 từ 05/09/2023 đến 31/12/2023**

*Duration: Semester ………from………to……*

1. **Số lớp triển khai/***Number of classes*: 2
2. **Đề cương triển khai:** Syllabus MAS291 Fall 2023

*Implement in accordance with Syllabus:* https://lmsqn.fpt.edu.vn/login/index.php

1. **Danh sách Giảng viên triển khai học phần/** *List of Classes and Lecturers:*

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| STT  *No.* | Tên giảng viên  *Lecturer* | STT  *No.* | Tên giảng viên  *Lecturer* |
| 1 | SE17C02, SE17C03  Nguyễn Hoàng Tường Vy | 4 |  |
| 2 |  | 5 |  |
| 3 |  | 6 |  |

1. **Danh sách giảng viên hỗ trợ, trợ giảng, khách mời (nếu có),**

*Supporting Lecturers, assistants, guest speakers (if any)*

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| STT  No. | Họ và tên  Full name | Vai trò  Role | Nội dung  Content | Thời lượng  Duration | Thời gian  Time | Số lớp  No of Class | Kinh phí  Budget |
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1. **Các hoạt động phát sinh:** *Addtional Activities:*

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| STT  No. | Họ và tên  Full name | Mục tiêu  Target | | Thời lượng  Duration | Thời gian  Time | Số lớp  No of Class | Kinh phí  Budget |
|  |  |  |  |  |  |  |  |
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1. **Tài liệu tham khảo bổ sung/***Additional References:*

*- Textbook:* Applied Statistics and Probability for Engineers

- *Link*: https://drive.google.com/file/d/1eCKoSfTrw8KgKoxkAOFkERU2pr1i8sl4/view

- Elementary Statistics Using Excel, 3rd, Mario F. Triola

- Course slides (.pptx, .pdf,…)

1. **Môi trường, công cụ triển khai bổ sung/** *Update Environments and Tools (if any):*
2. Thực hiện giảng dạy hoặc sử dụng trên những website nào:

*Websites for Teaching or Using:*

*https://lmsqn.fpt.edu.vn/*

1. Yêu cầu về công cụ, kỹ thuật đặc thù gì *(cái gì, ở đâu, như thế nào…)*

*Specific Tools and technical required (What? Where? How?, etc.)*

*Mathematics for Engineering MAE101, Computerized tools (Excel,…)*

1. Kênh trao đổi thông tin giữa thầy và trò *(kể cả việc nộp bài, cho điểm, nhận xét…)*

*Communication channels among lecturers and students (including submitting assignments, marking, and giving comment)*

https://lmsqn.fpt.edu.vn/

***10. Lịch triển khai môn học***

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| *Slot* | *Week* | *Chapter -Topic -Content* | *Assessment* | *Assignment Homework* | *Note* |
| *1* | **1** | **Chapter 1**. The Roles of Statistics in Engineering  1.1 The Engineering Method and Statistical Thinking  1.2 Collecting Engineering Data  1.3 Mechanistic and Empirical Models  1.4 Probability and Probability Models  **Chapter 2**. Probability  2.1 Sample Spaces and Events |  |  |  |
| *2* | 2.2 Interpretations of Probability  2.3 Addition Rules  2.4 Conditional Probability  2.5 Multiplication and Total Probability Rules  2.6 Independence |  | *Assignment 1* |  |
| *3* | **2** | 2.7 Bayes' Theorem  2.8 Random Variables  **Chapter 3**. Discrete Random Variables and Probability Distribution  3.1 Discrete Random Variables |  | *Assignment 1* |  |
| *4* | 3.2 Probability Distributions and Probability Mass Functions  3.3 Cumulative Distribution Functions  3.4 Mean and Variance of a Discrete Random Varibale |  | *Assignment 1* |  |
| *5* | **3** | 3.5 Discrete Uniform Distribution  3.6 Binomial Distribution  3.7 Geometric and Negative Binomial Distributions  3.8 Hypergeometric Distribution |  | Assignment 1 |  |
| *6* | 3.9 Poisson Distribution  **Review**  **Progress Test 1** |  | Submit Assignment 1 |  |
| *7* | **4** | **Chapter 4**. Continuous Random Variables and Probability Distribution  4.1 Continuous Random Variables  4.2 Probability Distributions and Probability Density Functions  4.3 Cumulative Distribution Functions  4.4 Mean and Variance of a Continuous Random Variable |  | Assignment 2 |  |
| *8* | 4.5 Continuous Uniform Distribution  4.6 Normal Distribution |  | Assignment 2 |  |
| *9* | **5** | 4.7 Normal Approximation to the Binomial and Poisson Distributions  4.8 Exponential Distribution  **Chapter 6**. Descriptive Statistics  6.1 Numerical Summaries |  | Assignment 2 |  |
| *10* | 6.2 Stem-and-Leaf Diagrams  6.3 Frequency Distributions and Histograms  6.4 Box Plots  6.5 Time Sequence Plots |  | Assignment 2 |  |
| *11* | **6** | **Chapter 7**. Sampling Distributions and Point Estimation of Paramaters  7.1 Introduction  7.2 Sampling Distributions and the Central Limit Theorem"  **Review** |  | Assignment 2 |  |
| *12* | **Progress Test 2**  **Chapter 8**. Statistical Intervals for a Single Sample  8.1 Confidence Interval on the Mean of a Normal Distribution, Variance Known |  | Submit Assignment 2  Project |  |
| *13* | **7** | 8.2 Confidence Interval on the Mean of a Normal Distribution, Variance Unknown  8.4 Large-Sample Confidence Interval for a Population Proportion |  | Project |  |
| *14* | 8.4 Large-Sample Confidence Interval for a Population Proportion (cont.)  **Chapter 9**. Test of Hypotheses for a Single Sample  9.1 Hypothesis Testing |  | Project |  |
| *15* | **8** | 9.2 Tests on the Mean of a Normal Distribution, Variance Known  9.3 Tests on the Mean of a Normal Distribution, Variance Unknown |  | Project |  |
| *16* | 9.5 Tests on a Population Proportion  **Chapter 10**. Statistical Inference for Two Samples  10.1 Inference on the Difference in Means of Two Normal Distributions, Variance Known  10.2 Inference on the Difference in Means of Two Normal Distributions, Variance Unknown |  | Project |  |
| *17* | **9** | 10.6 Inference on the Two Proportions  **Chapter 11**. Simple Linear Regression and Correlation  11.1 Empirical Models |  | Project |  |
| *18* | 11.2 Simple Linear Regression  11.3 Properties of the Least Squares Estimators  11.4 Hypothesis Tests in Simple Linear Regression |  | Project |  |
| *19* | **10** | 11.8 Correlation  **Project presentation** |  | Project |  |
| *20* | **Project presentation (cont.)**  **Progress Test 3** |  |  |  |

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| Người phê duyệt/*Approver*  *GĐCS/Campus’s Director* | Người kiểm tra/*Reviewer*  *TBĐT/Head of Academic Affairs Board)* | Người lập/*Creator*  *CNBM/Head of department* |
|  |  |  |
| Họ tên/*Name:*  Ngày/*Date:* | Họ tên/*Name:*  Ngày/*Date:* | Họ tên/*Name: Nguyễn Hoàng Tường Vy*  Ngày/*Date: 03/09/2023* |