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|---|--|------------------|-----------------|
| 科目コード/科目名<br>(Course Code / Course Title) | Introduction to Statistics 2   |                  |                 |
| テーマ/サブタイトル等<br>(Theme / Subtitle)         | Statistical Inference  |                  |                 |
| 担当者名<br>(Instructor)                      | 山口 和範(YAMAGUCHI KAZUNORI)<br>ドイ, ジミー(DOI JIMMY)  |                  |                 |
| 学期<br>(Semester)                          | 秋学期他(Fall Others)  | 単位<br>(Credit)   | 2単位(2 Credits)  |
| 科目ナンバリング<br>(Course Number)               | CMP2231  | 言語<br>(Language) | 英語<br>(English) |
| 備考<br>(Notes)                             | <ul style="list-style-type: none"> <li>・オンデマンド授業</li> <li>・TOEIC®550 点相当以上の英語力を有していることを前提に授業を実施する</li> </ul> |                  |                 |

#### 授業の目標 (Course Objectives)

This class is an introductory course that assumes no prior knowledge of statistics. Basic statistical concepts and methods are presented in a manner that emphasizes understanding the principles of data collection and analysis rather than theory. Much of the course will be devoted to discussions of how statistics is commonly used in the real world. The primary goal of the course is to help students understand how the process of problem solving using data, collecting data relevant to that problem, analyzing data, and interpreting data can help them find answers to real problems from their world.

#### 授業の内容 (Course Contents)

The following contents will be studied; Basics of statistical inference, population and sample, estimation, statistica test and so on.

#### 授業計画 (Course Schedule)

1. Role of Statistics
2. Random Sample and Sampling Error
3. Probability and Distributions
4. Sampling distribution and the Central limit Theorem
5. Statistical Estimation 1: Introduction
6. Statistical Estimation 2 ; Estimation of means
7. Statistical Estimation 3 ; Estimation of proportions
8. Hypothesis Test 1 : Introduction
9. Hypothesis Test 2 : Hypothesis and two types of errors
10. Hypothesis Test 3 : Difference of means
11. Analysis of Variance
12. Chi-squared Test
13. Analysis of Multiway Table
14. Correlation and Regression

#### 授業時間外(予習・復習等)の学習 (Study Required Outside of Class)

Assignments will be provided at each class.

#### 成績評価方法・基準 (Evaluation)

QUIZ 70% (10% × 7 回) (70%) / Final Report (30%)

#### テキスト (Textbooks)

None

#### 参考文献 (Readings)

#### その他 (HP 等) (Others (e.g. HP))

This class is e-learning course on the Blackboard.

#### 注意事項 (Notice)