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| 科目コード／科目名 (Course Code / Course Title) | BX438／Statistics | | |
| 担当者名 (Instructor) | 西崎 純代(NISHIZAKI SUMIYO) | | |
| 学期 (Semester) | 秋学期(Fall Semester) | 単位 (Credit) | 2単位(2 Credits) |
| 科目ナンバリング (Course Number) | ECX2311 | 言語 (Language) | 英語 (English) |
| 備考 (Notes) | | | |

授業の目標 (Course Objectives)

- Students will become familiar with the basic concepts of statistics and terminologies.
- Students will be able to apply their knowledge of statistics as an analytical tool for research.
- Students will be able to use basic statistical features of Microsoft Excel.

授業の内容 (Course Contents)

This course is designed to help students understand the basics of statistics and apply their knowledge in their research. The class consists of lectures and Excel workshops in which students learn the basic statistical functions. The order of topics may be adjusted to maximize learning outcomes.

授業計画 (Course Schedule)

- Introduction: What's the point? (Chapter 1 of Naked Statistics)
- Descriptive statistics: Who was the best baseball player of all time? (Chapter 2)
- Deceptive description: He's got a great personality (Chapter 3)
Excel Workshop: Basic functions for descriptive statistics
- Correlation: How does Netflix know what movies I like? (Chapter 4)
Excel Workshop: Correlation and data visualization 1
- Statistical inference 1: The central limit theorem (Chapter 8)
Excel Workshop: Correlation and data visualization 2
- Statistical inference 2
Excel Workshop: Calculate t- & p-values
- Statistical inference 3
Excel workshop: Regression analysis 1
- Revision of descriptive statistics, normal distribution, standard deviation 1
- Revision of descriptive statistics, normal distribution, standard deviation 2
- Excel workshop: Revision: Excel pivot tables
- Revision: Statistical inference 1
Polling: How we know that 64 percent of Americans support the death penalty (with a sampling error (plus or minus) 3 percent) (Chapter 10)
- Excel workshop: Regression analysis 2: Simple and multiple linear regression analyses
- Regression analysis 3: Dealing with dummy variables and missing values
- Conclusion

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

Students are encouraged to examine statistical information published in news reports and academic essays.

成績評価方法・基準 (Evaluation)

筆記試験(Written Exam)(42%)/8-10 mini assignments (quizzes and mini papers).(58%)

The contents of mini assignments will be decided after the class size is finalized. [If applicable] A rubric for a presentation and a short essay will be available for students. Academic Honesty: [If applicable] Students are required to prepare original work. Severe penalties are in place for students found guilty of plagiarism offenses. The submission of identical pieces of work for different courses is also considered an academic offense.

テキスト (Textbooks)

- Charles Wheelan. 2014. *Naked Statistics: Stripping the Dread from the Data*. W.W. Norton (ISBN:978-0393347777)

参考文献 (Readings)

その他 (HP 等) (Others(e.g.HP))

Miyoshi, D. (2021). 統計学の基礎から学ぶ Excel データ分析の全知識. Impress.
<https://book.impress.co.jp/books/1119101131>

注意事項 (Notice)