

## Syllabus 2018 Computer and Mathematical Sciences Data Science Training Camp I

Japanese

### Basic information

held this year:	yes
instructor(s)	Mitsuyuki Nakao Kazunori Yamada Aijing XIng Takuro Nakayama Naho Orita
room	Training room, GSIS building
schedule	Whole year
begins on:	An intensive lecture

### Objectives and outline

Currently, a lot of primary data is being cumulated rapidly and the importance of computational skills to handle such big data is emphasized. The goal of the course is to get familiar with the use of computational programming. In this course, students will tackle various type of programming problems and brush up their programming skills. The lecture will be delivered in English.

### Class plan

Attendee will solve 50 compulsory problems and two optional problems. Teaching assistants will help students to solve problems.

[Compulsory problems]

- Basic calculation
- Data structure
- Function
- Library usage
- Matrix calculation
- Random number
- I/O and string processing

[Optional problems]

- String processing
- Machine learning
- Bioinformatics
- Numerical calculation

### Evaluation

Based on exercise problems and the level of class participation.

### Textbook(s)

Nothing special.

### Web site

Last year's website.

[http://gp-ds.tohoku.ac.jp/curriculum/class\\_list\\_en.html](http://gp-ds.tohoku.ac.jp/curriculum/class_list_en.html)

### Office hours

Any time. Make an appointment in advance via e-mail.

### Other information

The date of class will be fixed after an arrangement with DPS and GPDS students.

