| Module Code | 19349015 | Course Term |
|---|---|---|
| **Course Subject Name** | **Information Processing and Practices** | **Autumn Semester** |
| **Course Tutor** | **Ton V. TA** | |
| Credit | 3 | Taught Day |
| Schools | School of Agriculture | **FRI-1,2** |
| Taught Year | The 3rd year | |
| Campus | Ito campus | |
| Subject Area | Lecture | |
| Course Subject Classification | Common basic subject | Friday, 1th & 2th period (8:40-12:00) |
| Course Requirements | Class attendance, IUPE laptops | |
| Course Requirement (Pre-requisite) | None | |

## Course Outline
To study fundamentals of programming concepts and skills needed for solving basic problems using MATLAB

## key words
MATLAB, Programming

## Study Objectives (General)
How to write codes in MATLAB programming and then solve real problems

## Study Objectives (Specific)
To learn and practise

a) command window, graph window, programming techniques in MATLAB

b) simple and complex calculations using Matlab

c) numerical computations and analyses

d) mathematical concepts upon which numerical methods rely

e) Matlab programming environment competently


## Course Plan
1. Introduction to MATLAB
2. Introduction to MATLAB programming
3. Selection Statements
4. Loop Statements
5. Vectorized Code & Project 1
6. MATLAB Programs
7. MATLAB Programs (continued)
8. String Manipulation
9. Data Strutures   & Project 2
10. Advanced File Input and Output
11. Advanced Functions
12. Advanced Topics for Problem Solving with MATLAB & Project 3


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|---|---|
| **Course Approaches** | Lectures, class exercises, and three projects |
| **Textbooks** | MATLAB: A Practical Introduction to Programing and Problem Solving, Stormy Attaway |
| **Reference Books** | Exercises in Computational Mathematics with MATLAB, Tom Lyche and Jean-Louis Merrien |
| **Study consultation (office hour)** | Make an appointment with the instructor by email or phone |
| | Office: Rm 786, Bldg W5, Ito campus |
| | Email: ta.viet.ton.050@m.kyushu-u.ac.jp          Phone: 092-802-4770 |
| **Exams/Results Evaluation Method** | Attendance: 10%                         Project i: 30%  (i=1,2,3) |
| | |
| **Others** | |