

Subject: Computer Programming

Course number : DMP1800E

Instructor : Assoc. Prof. Tomoki USHIYAMA, Dr. Akira HASEGAWA, Assoc. Prof. Rasmy MOHAMED

Term / Time : Fall through Winter

1 Course Description

This course provides general knowledge on Fortran90 computer programming and its skills for solving water-related problems covered in Course No. DMP2800E “Hydrology”, No. DMP2810E “Hydraulics”, No. DMP3800E, No. DMP3810E “Flood Hydraulics and Sediment Transport” and No. DMP2860E “Basic Practice on Flood Forecasting & Inundation Analysis”.

2 Course Outline (Course Topics)

Week

- 1 : Introduction of Computer Programming with Fortran90
- 2 : Variables
- 3 : Arithmetic Calculation
- 4 : Program Structure (if)
- 5 : Program Structure (if)
- 6 : I/O Statement
- 7 : Program Structure (do loop)
- 8 : Program Structure (do loop)
- 9 : Quiz(1)
- 1 0 : Hydrologic Application Exercise (1)
- 1 1 : Arrays
- 1 2 : Arrays
- 1 3 : Procedures and Structured Programming (subroutine, function)
- 1 4 : Quiz(2)
- 1 5 : Hydrologic Application Exercise (2)

3 Grading

Quiz (50%), Reports (50%)

If a report is late for the deadline, it will be not evaluated.

4 Textbooks

Reference: Fortran95/2003 for Scientists and Engineers (Third Ed.), by Stephen J. Chapman, McGraw-Hill,