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| Search the database of lecture summary for 2019 . | | | |
| 学部・研究科 Faculty/Graduate School |  | 時間割コード  Course Code | 64164 |
| 科目名  Course title  サブテーマ  Subtitle | Object-oriented programming | 授業形態/単位Term/Credits  クラス  Class | Spring / 4 |
| 担任者名  Instructor | Satoshi Kubota | 曜限  Day/Period | Tue 4 / Tue 5 |

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| 授業概要  Course Description  到達目標  Course Objective | **授業方法 / Teaching Methods** |
| lecture |
| **言語 / Language** |
| Japanese / English |
| **授業概要 / Course Description** |
| To understand programming techniques and object-oriented programming , learn using the Java language. Procedural processing programming is handled first, and object-oriented programming is advanced. Through this lecture, students will learn the basics of programming techniques required to create large programs. |
| **到達目標 / Course Objectives** |
| Acquisition of basic programming skills necessary for creating large programs |
| 授業計画  Course Content | **授業計画 / Course Content** |
| 1. About the mechanism of the guidance program, Java 2. Object-oriented basics (1) 3．Object-oriented basics (2) 4．Java Basics 　　Java programming basics, precautions for programming5 . Easy output of Java language, variable 　　variable, identifier, type, declaration of variables and use 6. Expressions and Operators 　　Expressions and operators, operators type, priority, type conversion 7. Conditional statement 　　relational operators and conditions, if statement, if~else statements, switch statements, logical operators 8. Repetition processing 　　for statement, while statement, do-while statement, statement nesting, processing flow change  9. Array 　 array mechanism, array variable, multi-dimensional array 10. Review (1) 11．Method 　　Method Basics, Arguments, Return Value 12. The basic class 　　concept of class, declaration, instance 13. Function of class 　　access restrictions, constructor, overloaded 14. Class variables and class methods15 . Summary of the first half 16. Interim test  17. Class library (1) 　　Class library, handling character strings 18. Class library (2) 　　calculation, wrapper class 19. Variable substitution, the sequence of object types 　　basic variables, objects variables, array of object type 20. Extending inherited classes, superclasses and subclasses21 . Packaging 　　and usage of package classes22 . Abstract classes and interfaces 23. Exception handling 　　Basics of exception handling, exception class 24. Input and output 　　streams, standard input and output, data input and output 25-26. Review (2) 27. Applet (1) 　　basic applet, various applet 28. Applet (2) Applet with movement 29. Summary 30. Confirmation of achievement |
| **授業時間外学習 / Expected work outside of class** |
| Review lesson materials, textbooks, notes, and review the content of the lessons. |
| 成績評価の方法・基準  Grading Policies /  Evaluation Criteria | **方法 / Course Content** |
| Comprehensive evaluation based on achievement (confirmation of academic ability by writing) and normal results without regular examinations. Evaluation is based on confirmation of achievement (40%), intermediate test (40%), and report assignment (20%). |
| **基準 / Evaluation Criteria** |
| A grade of 60% or higher is accepted. |
| 教科書  Textbooks | Sumio Ohno Basics of Java Programming 2 Learning with Active Learning Corona |
| 参考書  References | Sumio Ono Basics of Java programming learned by active learning 1 Corona Corp.　　 Mana Takahashi Easy Java 5th edition Softbank Creative　　 Mana Takahashi Easy Java Utilization 4th edition Softbank Creative |
| 担任者への問合せ方法 /  Contacts |  |
| 備考  Other Comments | Learning / Education Goals: ◎ A, ○ (C, E) Office Hour: Accepted at any time by e-mail. |