**2023Year 1st Semester Syllabus**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Created Date | 2023-01-04 20:50:36 | | |  | Last-Modified | 2023-01-04 21:11:06 | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Course Title | R AND PYTHON PROGRAMMING | | | | Course | STA2104-01 | |  |  |  |
| Code-Section |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Credit/Time/ |  |  |  |  |  |  |  |  |  |  |
| Experiment,Lab,Pr | 3/Mon3,4,Wed4 | |  |  | Department | Applied Statistics | |  |  |  |
| actical Technique |  |  |  |  |  |
| Time |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Time | Mon3,4,Wed4 | |  |  | Location | DWHMB101 | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Exam Date & Time | Midterm exam | |  |  | Final exam |  |  |  |  |  |
|  |  |  |  |  |  |  |  | |  |  |
| Class Language |  |  |  |  | Evaluation Type | Absolute evaluation | | | |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Name |  | Chung Jong Hee | |  | Telephone |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Instructor's Profile | Department | | DEPARTMENT OF APPLIED | | Contact | Mail |  | JOCHUNG947@GMAIL.COM | |  |
| STATISTICS |  | Information |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Office |  |  |  |  | Interview |  | JOCHUNG947@GMAIL.COM | |  |
|  |  |  |  |  | information |  |  |
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| TA's Name & |  |  |  |  | Contact |  |  |  |  |  |
| Contact | Name |  |  |  | Telephone |  |  |  |  |
|  |  |  | Information |  |  |  |  |
| Information |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  | |  |  |  |  |  |
|  |  | Learn basic structures and coding methods for R and Python. | | | |  |  |  |  |  |
|  |  | Learn about basic statistics and data aggregation. | | | |  |  |  |  |  |
| Course Description |  | Use examples to explain and practice how to code R and Python. | | | |  |  |  |  |  |
| Brief Introduction of the | |  |  |  |  |  |
| - In addition, make it possible to practice and learn sufficiently through assignments and tests. | | | | | |  |  |  |
| Course |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | | | |  |  |  |
|  |  |  | Korean | Learn basic structures and coding methods for R and Python. | | | |  |  |  |
|  |  | 1. |  |  |  |  |  |  | 50% |  |
|  |  | English | Learn the R and python's basic programming. | | | |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  | | | |  |  |  |
|  |  |  | Korean | Learn about basic statistics and data aggregation. | | | |  |  |  |
|  |  | 2. |  |  |  |  |  |  | 25% |  |
|  |  | English | Learn how to use R and python to calculate descriptive statistics. | | | | |  |
|  |  |  |  |  |
|  |  |  |  |  | | | |  |  |  |
|  |  |  | Korean | Practice programming for basic problems. | | | |  |  |  |
| Course Goals |  | 3. |  |  |  |  |  |  | 25% |  |
|  | English | Practice programming skills with problems of basic Programming. | | | | |  |
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|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Korean |  |  |  |  |  |  |  |
|  |  | 4. |  |  |  |  |  |  |  |  |
|  |  | English |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Korean |  |  |  |  |  |  |  |
|  |  | 5. |  |  |  |  |  |  |  |  |
|  |  | English |  |  |  |  |  |  |  |
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|  | The total measurable competencies must be 100%. Each course objective should set the competency as | | | | | |  |
| Core Competencies | 25%. The core and major competencies should equal at least 50%. | | | | |  |  |
|  |  |  |  |  |  |  |
| logical thinking ability | 50% | creative imagination | 30% | fusion thinking ability | 20% |  |
|  |  |
|  |  |  |  |  |  |  |  |
| Sub-Competencies/Learning |  |  |  |  |  |  |  |
| Unit1 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sub-Competencies/Learning |  |  |  |  |  |  |  |
| Unit2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sub-Competencies/Learning |  |  |  |  |  |  |  |
| Unit3 |  |  |  |  |  |  |  |
|  |  | |  | |  | |  |
| Core Competencies(Liberal | **Must reflect the interrelationship between core competencies (elective courses) and major competencies** | | | | | |  |
| Arts)Major competency( |  |  | **(major studies).** |  |  |  |  |

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| Sustainable Development |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Goals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average Recommended | Average Reading | |  |  |  |  |  |  |  | Average amount of | | |  |  |  |  |  |
| Amount of Learning per | Volume |  |  |  |  |  |  |  |  | writing(Based on A4) | | |  |  |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
| Course Methods (%) | Lecture |  | Practice Training | | | |  |  | Presentation | | | Dabate | | | Team Project | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Amount 100 |  | 70% |  |  |  | 30% | |  | 0% | | |  | 0% | |  | 0% |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  | PBL Subject | | Capstone Design | | | |  |  | CBL, Social | | | Flipped Classroom | | |  | Work |  |
| Course Methods 2 |  | Innovation Course | | | | Experience,Internsh | |  |
| Select Relevant Items |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
| Grading Policy(%) | Midterm | Final exam | | |  | Quiz |  |  | Individual | |  | Team | Attendance | | | Others |  |
| exam |  |  |  | Assignment | | Assignment | |  |
| Total Amount 100 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Free Input for Other | 40% |  | 40% | |  |  | 0% | | 10% | |  | 0% |  |  | 10% | 0% |  |
| Information |  |  |  |  |  |  |  |
|  |  |  | | |  | |  |  |  | |  |  |  |  |  |  |  |
|  | Title of Assignment/Project Name, and | | | | | |  |  | Submission | | | Type of Submission and Method | | | | |  |
|  | Method of Filling Out | | | | |  |  |  | Deadline | | |  |
|  |  |  |  |  |  |  |  |  |  |
| Assignment/ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Report, Project Guide |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| Prerequisite | - |  | Online Course | LearnUs |  |  |
|  | Address |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Course | Course Material Name | Author | Publisher | Publish Year | ISBN |  |
| Material |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

whole

Main Learner Precautions

Attatchment



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**Weekly Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| week | Period | Weekly Topic & Contents | Remarks |  |
|  |  |  |  |  |
|  |  |  | (3.2.) Spring |  |
|  | 2023-03-02 | Python Foundation | semester classes |  |
| 1 | begin |  |
| 2023-03-08 | - Python installation, data type, etc. |  |
|  | (3.6. - 3.8.) Course |  |
|  |  |  |  |
|  |  |  | add and drop period |  |
|  |  |  |  |  |
| 2 | 2023-03-09 | Python Foundation |  |  |
| 2023-03-15 | - Data Type |  |  |
|  |  |  |
|  |  |  |  |  |
| 3 | 2023-03-16 | Python Foundation |  |  |
| 2023-03-22 | - Control statement |  |  |
|  |  |  |
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| 4 | 2023-03-23 | Python Foundation |  |  |
| 2023-03-29 | - Functions and Input/Output |  |  |
|  |  |  |
|  |  |  |  |  |
| 5 | 2023-03-30 | Python Numpy |  |  |
| 2023-04-05 | structures and functions |  |  |
|  |  |  |
|  |  |  |  |  |
| 6 | 2023-04-06 | Python Numpy | (4.7.) First third of |  |
| 2023-04-12 | structures and functions | the semester ends |  |
|  |  |
|  |  |  |  |  |
| 7 | 2023-04-13 | Python Pandas |  |  |
| 2023-04-19 | structures and functions |  |  |
|  |  |  |
|  |  |  |  |  |
|  | 2023-04-20 | Python Pandas | (4.20. - 4.26.) |  |
| 8 | Midterm |  |
| 2023-04-26 | structures and functions |  |
|  | Examinations |  |
|  |  |  |  |
|  |  |  |  |  |
|  |  |  | (4.27. - 5.1.) Course |  |
|  | 2023-04-27 | Python Matplotlib | withdrawal period |  |
| 9 | structures and functions | (5.2. - 5.4.) |  |
| 2023-05-03 |  |
|  | \* Mid-term examination on May 1st | Application period |  |
|  |  |  |
|  |  |  | for S/U evaluation |  |
|  |  |  |  |  |
|  |  |  | (5.2. - 5.4.) |  |
|  | 2023-05-04 | R foundation | Application period |  |
| 10 | for S/U evaluation |  |
| 2023-05-10 | -R installation and data frames, etc. |  |
|  | (5.5.) Children's day |  |
|  |  |  |  |
|  |  |  | 05.05 Children's Day |  |
|  |  |  |  |  |
| 11 | 2023-05-11 | R foundation | (5.15.) Second third |  |
| 2023-05-17 | - Control statements and basic functions | of the semester ends |  |
|  |  |
|  |  |  |  |  |
| 12 | 2023-05-18 | R foundation |  |  |
| 2023-05-24 | - Create a function |  |  |
|  |  |  |
|  |  |  |  |  |
|  | 2023-05-25 | R ggplot | (5.27.) The day of |  |
| 13 | Buddha's coming |  |
| 2023-05-31 | - Scatterplot, bar graph, box drawing, etc. |  |
|  | 05.27 Buddha's Birthday |  |
|  |  |  |  |
|  |  |  |  |  |
| 14 | 2023-06-01 | R dplyr | (6.6.) Memorial day |  |
| 2023-06-07 | -filter,select,summarise,bind, join,etc | 06.06 Memorial Day |  |
|  |  |
|  |  |  |  |  |
| 15 | 2023-06-08 | R dplyr | (6.8. - 6.14.) |  |
| 2023-06-14 | -filter,select,summarise,bind, join,etc | Self-study |  |
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| 16 | 2023-06-15 | 19th of the final exam. | (6.15. - 6.21.) Final |  |
| 2023-06-21 | Examinations |  |
|  |  |  |
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• Students with disabilities(SWDs) can request accommodations related to lectures, assignments, or tests by contacting t he course professor at the beginning of semester.

(However, accommodations may vary depending on the essentiality of lecture and discretion of professors.) [Lecture]

* Visual Impairment: alternative, braille, enlarged reading materials, note-taker
* Physical Impairment: alternative reading materials, access to classroom, note-taker, assigned seat
* Hearing Impairment: note-taker/stenographer, recording lecture



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* Intellectual Disability/Autism: note-taker [Assignments and Test]
* Visual/Physical/Hearing Impairment: (reasonable) extra days for submission, alternative type of assignment, extende

d test time, alternative type of test, arranging separate test room, and proctors, test ghostwriter

- Intellectual Disability/Autism: (reasonable) extra days for submission, alternative type of assignment



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