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| Department | International College of Liberal Arts | | |
| Semester | Spring 2025 | Year Offered (Odd/Even/Every Year) | Every Year |
| Course Number | DATA160 | | |
| Course Title | Coding Bootcamp: Python | | |
| Prerequisites | DATA150 Introduction to Python Programming (can be taken concurrently) | | |
| Course Instructor | PARIDA Abhishek | Year Available (Grade Level) | 1 |
| Subject Area | Data Science | Number of Credits | 1 |
| Class Style | Workshop | Language of instruction | English |

(NOTE 1) Depending on the class size and the capacity of the facility, we may not be able to accommodate all students who wish to register for the course

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| Course Description | A coding boot camp is an activity-oriented training session designed to prepare students with practical problem-solving skills; the boot camp is spread across ten days, each covering a module. A module consists of specific Python exercises/questions for the students to practice and implement. Completing each exercise will give them a better understanding of Python and programming in general. We focus extensively on Python essentials by building on the introductory Python course. Students begin by practicing problems and work their way to problem-solving in an algorithmic way. They are also introduced to many coding interview questions and practice OOP concepts. Students are motivated for G.U.I. or web development projects based on their capacity. |
| Class plan based on course evaluation from previous academic year | N/A |
| Course related to the instructor's practical experience (Summary of experience) | N/A |
| Learning Goals | Python is an extensive topic, and each student has a different learning curve, so we offer a Bootcamp to fulfill their programming needs. A coding boot camp is an activity-oriented training session designed to prepare students with practical problem-solving sessions. |

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| iCLA Diploma Policy | DP1/DP2 |
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iCLA Diploma Policy

(DP1) To Value Knowledge – Having high oral and written communication skills to be able to both comprehend and transfer knowledge

(DP2) To Be Able to Adapt to a Changing World – Having critical, creative, problem-solving, intercultural skills, global and independent mindset to adopt to a changing world

(DP3) To Believe in Collaboration – Having a disposition to work effectively and inclusively in teams

(DP4) To Act from a Sense of Personal and Social Responsibility – Having good ethical and moral values to make positive impacts in the world

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| Active Learning Methods | Problem-Based Learning/Workshop, Fieldwork | | | | |
| More details/supplemental information on Active Learning Methods | N/A | | | | |
| Use of ICT | N/A | | | | |
| Contents of class preparation and review | Students are advised to take handwritten notes; this will drastically increase their ability to retain the information. Further, they are expected to practice regularly. One to two hours of study is required before the class preparation, and an equal amount of practice is needed after each lecture. | Hours expected to be spent preparing for class (hours per week) | 1 hours | Hours expected to be spent on class review (hours per week) | 1 hours |
| Feedback Methods | The best way to correspond during the course is the UNIPA system or direct emails. Please check the UNIPA account regularly for updates related to classes. To have a better grade, be regular in the study, active and attentive in the class, do a revision of classwork regularly, and participate in-class quizzes. | | | | |

| Grading Criteria | | |
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| Grading Methods | Grading Weights | Grading Content |
| Understanding of Concepts | 25% | In-class Discussion, Classroom Exercises |
| Code Functionality | 25% | In-class Discussion, Classroom Exercises |
| Timeliness | 50% | In-class Discussion, Classroom Exercises |

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| Required Textbook(s) | Eric Matthes– Python Crash Course: A Hands-On, Project-Based Introduction to Programming Al Sweigart– Automate the Boring Stuff with Python, 2nd Edition: Practical Programming for Total Beginners Zed Shaw– Learn Python 3 the Hard Way: A Very Simple Introduction to the Terrifyingly Beautiful World of Computers and Code Andrew Bird et al. The Python Workshop |
| Other Reading Materials/URL | N/A |
| Plagiarism Policy | Plagiarism is the dishonest presentation of others' work as if it were one's own. Duplicate submission is also treated as plagiarism. Depending on the nature of plagiarism, one may fail the assignment or the course. The repeated act of plagiarism will be reported to the University, which may apply additional penalties. |

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| Other Additional Notes (Outline crucial policies and info not mentioned above) | N/A |
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(NOTE 2) Class schedule is subject to change

| Class Schedule | |
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| Class Number | Content |
| Class 1 | Miscellaneous practice problems using Python |
| Class 2 | Analysis of algorithms using Big-O notation |
| Class 3 | Analysis of algorithms using Big-O notation |
| Class 4 | Sorting and Searching algorithms |
| Class 5 | Sorting and Searching algorithms |
| Class 6 | Recursion |
| Class 7 | Recursion |
| Class 8 | Pandas |

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| Class 9 | Pandas |
| Class 10 | Object Oriented Programming |
| Class 11 | Object Oriented Programming |
| Class 12 | Object Oriented Programming |
| Class 13 | Object Oriented Programming |
| Class 14 | Web Scraping using BeautifulSoup |
| Class 15 | Web Scraping using BeautifulSoup |