Course Title	Exercise in Data Science		
Department/Course	Graduate School of Marine Science and Technology　Master's Course		
Category/Spacializations	<Graduate School Subjects>、<Other Courses' Subjects>		
Year Offered	1st	Class	10
Required or Elective	elective	Credit	1
Semester	Intensive Course	Course Type	
Day/Period	INTENSIVE	Lecture Room	Others
Chief Instructor	Takenawa Tomoyuki		
Instructors	Takenawa Tomoyuki、		
Theme & Objects	Acquire data handling and analysis techniques through exercises using actual data in various fields of oceanography.		
Learning Outcomes	Understand data science methods in various fields of oceanography.		
Styles of Class	combination: in-person classes/online (real-time/on-demand)		
Course Contents	(1) Case study exercise on analysis of genome information of marine species (Kondo (Hidehiro), Hirono, Koiwai: 4 lectures) (2) Case study exercise on ocean observation (Kashima: 3 lectures) (3) Case study exercise on smart fisheries (Shiode, Amakasu, Miyamoto (Ryusuke): 1 lecture for each) (4) Case study exercise on food products (Hagiwara: 3 lectures)		
Prerequisites	Must have earned (or be in the process of earning) credits for "Artificial Intelligence and Machine Learning" and "Deep Learning"		
Textbook / References	None		
Preparation & Review	Prior study and work on assignments specified in the lecture.		
Assessment and Examinations	Participation in each exercise and submitted assignments will be evaluated		
Evaluation Criteria	The criterion for passing the course is a good understanding of the methodology of each exercise		
Teaching activities & methods			
Instructor Contact Information	For each class: contact to each lecturer For the whole course: Tomoyuki Takenawa: takenawa@kaiyodai's address		
Other Information	Classes are scheduled in late September. Please keep your schedule free. If there are many applicants, students of WISE program may be given priority. (Even if you meet the course requirements, you may not be able to take the course.)		
URL			
Code			
Teaching Language	Japanese/English At least the materials are provided in English.		
Workload Calculation	(1) Class hours: 30 hours (2) Laboratory activities: 0 hours (3) Preparation: 20 hours (4) Review: 20 hours (5) Preparation for presentation: 0 hours (6) Report writing: 20 hours (7) Discussions with faculty: 0 hours (8) Participation in related seminars: 0 hours (9) Other laboratory activities: 0 hours Total hours of study: 90 hours		
Related Degree Awarding Policy	https://www.kaiyodai.ac.jp/student/syllabus/curriculum-map.html		
Relation to SDGs	4 Quality education 9 Industry, innovation and infrastructure		