

| | | | | | | | | | | | | |
|--|--|---|---|---|--|--|--|--|--|--|--|--|
| | problems in the context of cities, regions, and coastal areas | | | | | | | | | | | |
| | CPMK-4. Able to manage social, economic, environmental data through the formulation of appropriate data needs in accordance with strategic issues and planning approaches that utilize ICT to produce creative and innovative planning work | | | | | | | | | | | |
| | CPMK-5. Able to analyze spatial characteristics of cities, regions and coasts by understanding the interrelationships between non-spatial and spatial aspects so that information is available as a basis for compiling planning models and concepts | | 1 | 1 | | | | | | | | |
| | CPMK-6. Able to formulate models through qualitative and quantitative approaches to simulate scenario arrangement of urban, regional and coastal areas | 1 | | | | | | | | | | |
| | CPMK-7. Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pay attention to and apply humanities values that are in accordance with their area of expertise | 1 | | | | | | | | | | |
| | CPMK-8. Able to make decisions appropriately in the context of | 1 | | | | | | | | | | |

NATURAL RESOURCES AND ENVIRONMENT SYSTEMS COURSE LEARNING PLAN
ODD SEMESTER OF ACADEMIC YEAR 2021–2022

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentati on, task, discussion, quice, practice) | Grading Policy | Assess ment (%) |
|-----------------------|--|---|---|--|---|-----------------------------|----------------------------|--|------------------------------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Week 1 (Day 1 and 2) | Mastering the principles and philosophy of planning and able to articulate in understanding the problems in the field of environment, especially on the Land and water resources | Planning concept in sustainable development. | Planning concept in sustainable development. | Students are able to explain the concepts / theoretical and basic principles of sustainable environmental management | Syllabus discussion, evaluation, tasks. Definition, concept / theory of planning in the analysis of natural resources and environmental geology | M1 | 100 | Face-to-face lectures, discussions | Individual Activeness | |
| | | | | | Basic principles in analysis of natural resources and environmental geology | M1 | 60 | Face-to-face lectures, discussions | Individual Activeness | |
| | | | | | | | | 60 | Face-to-face lectures, discussions | Individual Activeness |
| Week 2 (Day 1 and 2) | Able to describe spatial characteristics of urban, regional, and coastal (Relate to Land and Aquatic resources) through analysis between aspatial and spatial | The concept of Land Resources : Land, vegetation, water, minerals,air | The concept of Land Resources : Land, vegetation,water, minerals, air | Students are able to explain the concepts / theoretical and basic principles of sustainable environmental management | Syllabus discussion, evaluation, tasks. Definition, concept / theory of planning in the analysis of natural resources and environmental geology | M1 | 160 | Face-to-face lectures, discussi ons | Individual Activeness | |

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentati on, task, discussion, quice, practice) | Grading Policy | Assess ment (%) |
|-----------------------|---|--|--|--|---|-----------------------------|----------------------------|--|---|-----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | aspects relation to provide basis information in formulating planning mode and concept. | | | | Basic principles in analysis of natural resources and environmental geology | M1 | | | | |
| Week 3 (Day 1 and 2) | Able to describe spatial characteristics of urban, regional, and coastal (Relate to Land and Aquatic resources) through analysis between aspatial and spatial aspects relation to provide basis information in formulating planning mode and concept. | The concept of Land Resources : Land, vegetation, water, minerals, air | The concept of Land Resources : Land, vegetation,water, minerals, air | The concept of Land Resources : Land, vegetation, water, minerals, air | The concept of Land Resources : Land, vegetation, water, minerals, air | M1, M3 | 160 | Face-to-face lectures, discussi ons | Individual Activeness | |
| Week 4 (Day 1 and 2) | Able to describe spatial characteristics of urban, regional, and coastal (Relate to Land and Aquatic resources) through analysis between aspatial and spatial aspects relation to provide basis | The concept of Land Resources : Land, vegetation, water, minerals,air | The concept of Land Resources : Land, vegetation, water, minerals, air | The concept of Land Resources : Land, vegetation, water, minerals,air | The concept of Land Resources : Land, vegetation, water, minerals, air | M1, M3 | 160 | Face-to-face lectures, discussi ons | Presentati on and Individual Activeness | 10% |

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentation, task, discussion, quize, practice) | Grading Policy | Assessment (%) |
|----------------------|---|---|---|---|---|-----------------------------|---------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | information in formulating planning mode and concept. | | | | | | | | | |
| Week 5 (Day 1 and 2) | Able to describe spatial characteristics of urban, regional, and coastal (Relate to Land and Aquatic resources) through analysis between aspatial and spatial aspects relation to provide basis information in formulating planning mode and concept. | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | M1, M3 | 160 | Kuliah tatap muka, diskusi, studi kasus | Presentati on and Individual Activeness | 10% |
| Week 6 (Day 1 and 2) | Able to describe spatial characteristics of urban, regional, and coastal (Relate to Land and Aquatic resources) through analysis between aspatial and spatial aspects relation to provide basis information in formulating planning mode and concept. | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | M1, M3 | 160 | Face-to-face lectures, discussions | Presentati on and Individual Activeness | 10% |

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentation, task, discussion, quize, practice) | Grading Policy | Assessment (%) |
|-----------------------|---|---|---|---|---|-----------------------------|----------------------------|---|--|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Week 7 (Day 1 and 2) | Able to describe spatial characteristics of urban, regional, and coastal (Relate to Land and Aquatic resources) through analysis between aspatial and spatial aspects relation to provide basis information in formulating planning mode and concept. | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | The concept of Aquatic Resources : Aquatic ecosystems, oceanography, and marine geomorphology | M1, M3 | 160 | Face-to-face lectures, discussions | Presentation and Individual Activeness | 10% |
| Week 8 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban, regional and coastal spatial settings. | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, Environmental capacity; buffer planning | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, environmental capacity; buffer planning | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, Environmental capacity; buffer planning | Concepts and models of tourism development that can be applied according to characteristics | M1, M3 | 160 | Face-to-face lectures, discussions | Presentation and Individual Activeness | 10% |

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentati on, task, discussion, quice, practice) | Grading Policy | Assess ment (%) |
|--------------|--|---|---|---|---|-----------------------------|----------------------------|--|---|-----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Week 9 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban,regional and coastal spatial settings. | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, environmental capacity; buffer planning | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, environmental capacity; buffer planning | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, environmental capacity; buffer planning | Natural resource management approach in sustainable development: biocentric, catchment area, environmental carrying capacity, environmental capacity; buffer planning | M1, M3 | 160 | Face-to-face lectures, discussions | Presentati on and Individual Activeness | 10% |
| Week 10 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban,regional and coastal spatial settings. | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | M1, M3 | 160 | Face-to-face lectures, discussions | Presentati on and Individual Activeness | 10% |
| Week 11 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, | M1, M3 | 160 | Face-to-face lectures, discussions | Presentati on and Individual Activeness | 10% |

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentati on, task, discussion, quice, practice) | Grading Policy | Assess ment (%) |
|--------------|--|--|--|---|--|-----------------------------|----------------------------|--|---|-----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | urban,regional and coastal spatial settings. | Balance, Air Analysis, Vegetation Analysis | Analysis, Vegetation Analysis | Balance, Air Analysis, Vegetation Analysis | Vegetation Analysis | | | | | |
| Week 12 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban,regional and coastal spatial settings. | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | | Analysis of land resources: Land Capability, Land Balance, Water Balance, Mineral Balance, Air Analysis, Vegetation Analysis | M1, M3 | 160 | Quiz | Quiz | 20% |
| Week 13 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban,regional and coastal spatial settings. | Satellite Image Data Processing | Satellite Image Data Processing | Satellite Image Data Processing | Satellite Image Data Processing | M1, M3 | 160 | Discussi on | Presentati on and Individual Activeness | 10% |
| Week 14 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban,regional and | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | M1, M3 | 160 | Discussi on | Presentati on and Individual Activeness | 10% |

| Face to face | COURSE LEARNING OUTCOME | LESSONS LEARNING OUTCOME | MODULE | LEARNING OUTCOME (from weeklyModule) | Scope | Learning Methods (Week 1-7) | Course Duration (minutes) | Modes of Delivery (Presentati on, task, discussion, quice, practice) | Grading Policy | Assess ment (%) |
|--------------|---|--|--|--|--|-----------------------------|----------------------------|--|---|-----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | coastal spatial settings. | analysis | analysis | analysis | | | | | | |
| Week 15 | Able to formulate models through qualitative and quantitative approaches to simulate scenarios of urban, regional and coastal spatial settings. | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | M1, M3 | 160 | Discussi on | Presentati on and Individual Activeness | 10% |
| Week 16 | | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | Aquatic ecosystems analysis, Oceanographic Analysis, and Marine geomorphology analysis | M1, M3 | 160 | Discussi on | Presentati on and Individual Activeness | 10% |
| | | | | | Task submission | M3, M4 | - | Task submissi on | Task Report | 30% |

EVALUATION 1 WEEKLY GROUP PRESENTATION

A. LEARNING OBJECTIVE

The expected learning outcomes of the SSAL course from evaluation 1 are:

- KNOWLEDGE** : 1. Mastering the principles and philosophy of planning, and being able to articulate in understanding the problems in the field of the environment, especially regarding the SDA of the Land and Water Resources.
2. Applying aspects of urban studies, regional studies, spatial science, data science & computer applications, socio-politics, environmental management, urban design, infrastructure systems, coastal studies, management, economics in relation to environmental management
- Special Skill** : 1. Able to understand planning issues through observing social, economic and environmental conditions so as to be able to formulate strategic issues in the context of cities, regions, and coastal areas
2. Able to manage social, economic, and environmental data through the formulation of appropriate data needs in accordance with strategic issues and planning approaches that utilize ICT to produce creative and innovative planning works
3. Able to analyze the spatial characteristics of cities, regions and coastal areas by understanding the relationship between a spatial and spatial aspects so that information is available as a basis for developing planning models and concepts.
4. Able to formulate models through qualitative and quantitative approaches to simulate scenarios for urban, regional and coastal settings.
- General skill** : 1. Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies the values of humanities in accordance with their fields of expertise
2. Being able to make decisions appropriately in the context of problem solving in his field of expertise, based on the results of analysis of information and data and being able to present it with a good presentation

B. EVALUATION OBJECTIVES

This evaluation is a TASK GROUP where students will be evaluated for the progress of their abilities / competencies when making presentations, whether they are individually or in groups. The objectives of this evaluation are:

- Ensure that students are able to understand and review the material provided
- Ensure that students are able to make presentations properly and correctly
- Ensure that students are able to work together in groups
- Ensure that students can play an active role in each lecture material provided

EVALUATION SUBSTANCE

The Substance of this evaluation includes:

- Presentation Techniques
- The substance of the material presented
- Arguments in the Discussion session

C. EVALUATION IMPLEMENTATION

- Evaluation in the form of weekly material presentations.
- Each class will be divided into 12 groups.
- Presentation assignments are carried out in groups. Each group is expected to provide presentation material a week before the scheduled presentation of the group. Students in groups will present lecture material according to the schedule specified in SAP.
- Each group is asked to provide a copy of presentation material to be given to the Lecturer at the time of the presentation of the group concerned.
- Presentations are held in lectures on the 2nd week until the 7th week, and the 9th week until the 14th week.

D. GRADING CRITERIA

- The evaluation weight for this evaluation is 20%, with the following distribution:
 - ~ Presentation Techniques = 40%
 - ~ Material Substance = 40%
 - ~ Discussion = 20%

| Dimension | Very good | Good | Average | Poor | Very poor |
|-----------------------------------|--|--|--|--|--|
| Presentational skill (40%) | Organized presentations by presenting facts supported by examples examined in accordance with the concepts presented | The presentation is well organized and presents convincing facts to support conclusions | The presentation has a focus and provides some evidence that supports conclusions | Focus enough, but the evidence is insufficient to be used in drawing conclusions | There is no clear organization. Facts are not used to support statements |
| | 86-100 | 76-85 | 66-75 | 56-65 | 0-55 |
| Material Substance (40%) | Content is able to inspire listeners to develop their minds and contain elements of creativity and / or uniqueness | Complete accurate contents. Listeners add new insights to the topic | Accurate but incomplete contents . Listeners are less active in discussing the topic | The contents are not accurate because there are no supporting factual data | Contents are inaccurate and too general. Listeners don't get any learning |
| | 86-100 | 76-85 | 66-75 | 56-65 | 0-55 |
| Discussion (20%) | Arguments are Right with examples or facts | The argument is right but lacks facts | Arguments are incorrect, there are facts or examples | Arguments are not precise, there are no examples | The argument is incorrect or wrong |

EVALUATION 2 MID-TERM EXAM

A. LEARNING OBJECTIVE

The expected achievement of SSAL courses from evaluation 2 are:

- Knowledge** : 1. Mastering the principles and philosophy of planning, and being able to articulate in understanding the problems in the field of environment, especially regarding SDA Mainland
2. Applying aspects of urban studies, regional studies, spatial science, data science & computer applications, socio-politics, environmental management, urban design, infrastructure systems, coastal studies, management, economics in relation to environmental management
- Special Skill** : 1. Able to analyze the spatial characteristics of cities, regions and coastal areas by understanding the relationship between aspatial and spatial aspects so that information is available as a basis for developing planning models and concepts.
2. Able to formulate models through qualitative and quantitative approaches to simulate scenarios for urban, regional and coastal settings.
- General Skill** : 1. Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies the values of humanities in accordance with their fields of expertise

B. EVALUATION OBJECTIVE

This evaluation takes the form of WRITING EXAM with material concerning natural resource systems and terrestrial environments. The objectives of this evaluation are:

- Assess the level of success of teaching and learning activities related to the substance of concepts and management (thematic data and analysis) of natural resources and terrestrial environment in regional and city planning.

C. EVALUATION SUBSTANCE

The substance of evaluation includes:

- Concept of Sustainable Development in Spatial Planning (Planning Arrangement Process)
- Land Resource Concept and Analysis: Thematic data and the process of Land Capability, Land Balance and Water Balance analysis
- Concepts and Analysis of Land Resources: Thematic data and analysis process for Availability of Minerals and Minerals Konsep dan Analisa SDA Darat : Data tematik dan proses analisis Neraca Udara dan Vegetasi

D. EVALUATION IMPLEMENTATION

- Evaluations are individual,
- The evaluation held at the 8th week.
- Evaluation in the form of a written examination.

E. GRADING CRITERIA

- Evaluation weighting 30%

EVALUATION 3 FIELD ASSESSMENT REPORT (ARTICLE / POSTER)

A. LEARNING OBJECTIVE

The expected achievement of SSAL courses from evaluation 3 are:

- Knowledge** : 1. Applying aspects of urban studies, regional studies, spatial science, data science & computer applications, socio-politics, environmental management, urban design, infrastructure systems, coastal studies, management, economics in relation to environmental management
- Special Skill** : 1. Able to understand planning issues through observing social, economic and environmental conditions so as to be able to formulate strategic issues in the context of cities, regions, and coastal areas
2. Able to manage social, economic, and environmental data through the formulation of appropriate data needs in accordance with strategic issues and planning approaches that utilize ICT to produce creative and innovative planning works
3. Able to analyze the spatial characteristics of cities, regions and coastal areas by understanding the relationship between a spatial and spatial aspects so that information is available as a basis for developing planning models and concepts.
4. Able to formulate models through qualitative and quantitative approaches to simulate scenarios for urban, regional and coastal settings.
- General Skill** : 1. Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies the values of humanities in accordance with their fields of expertise

B. EVALUATION OBJECTIVE

This evaluation is in the form of a GROUP TASK where students are asked to provide reports on the results of field study observations on a site / object area related to natural and environmental resource systems in the form of papers or posters. The objectives of this evaluation are:

- Students are able to understand and see conditions in the field related to thematic data collection related to natural resource and environmental systems
- Students are able to make reports on the results of field studies related to natural resource and environmental system lecture materials

C. EVALUATION SUBSTANCE

The substance of evaluation includes:

1. Data collection (thematic data) on natural and coastal and natural resource systems
2. Conformity of material substance to paper reports or posters between lecture material and data obtained in the field.

D. EVALUATION IMPLEMENTATION

1. Field lectures held at the 15th week of lectures (tentative)
2. Evaluation in the form of reporting the results of field lectures in the form of Papers or Posters.
3. Tasks are done in groups
4. Each class consists of 6 (six) groups, with the provisions being a combination of 2 groups from evaluation 1 (weekly presentation), with the same presentation material theme.

E. TASK MATERIAL

Paper Reports must contain the following:

1. CHAPTER 1 Introduction: contains background, problem formulation, goals and objectives, and scope
 2. CHAPTER 2 Literature Review
 3. CHAPTER 3 Methodology: (stages in obtaining data)
 4. CHAPTER 4 Discussion: contains thematic data (and interpretations) and the concept of analysis
 5. CHAPTER 5 Conclusions
Laporan Makalah harus diketik pada kertas A4 (potrait), spasi 1.15, margin atas 2.5 cm, margin kiri 3 cm, margin kanan 2.5 cm, dan margin bawah 2 cm.
1. Paper reports must be bound and given cover (title and name of group member + NRP), preface, table of contents, list of tables, list of images / maps, and bibliography.
 2. Poster reports must contain the following:
 3. Poster reports must be printed on A2 size (full)
 4. Reports on Papers or Posters must be certified first.

F. TASK COLLECTION

1. Collection of evaluation assignments (paper / poster reports) collected at 16 weeks.
2. Files collected in the form of hardcopy data files (paper report documents / posters) and softcopy. Especially for softcopy (* .pdf format) collected in 1 group CD (CD must be given a CD cover with the title and name of the group members)

G. GRADING CRITERIA

1. The evaluation weight for this evaluation is 20%.

| Sub Bab | 86-100 | 76-85 | 66-75 | 56-65 | 0-55 |
|--------------------------|--|--|--|---|---|
| Preface | The empirical facts are very complete and very relevant, the urgency of the problem is high | Complete and relevant empirical facts, but the urgency of the problem is lacking | Empirical facts exist but are irrelevant and not urgent | Empirical facts are incomplete, irrelevant, not urgent | There are no empirical facts and cannot formulate problems |
| Literature review | The substance of the complete literature review mentions more than the specified reference | complete substance of the literature review in accordance with TOR | Less complete but according to the topic of the assignment | Less complete and not in accordance with the topic of the assignment | Incomplete and inappropriate |
| Methodology | Data needed, how to obtain data and techniques to process data precisely and explained in detail | Data needed and how to get the right data but the technique of processing data is not right | How to get the right data, the data needed is less, the data processing technique is not right | Data needed, how to obtain data and data processing techniques is not right | Data needed, how to obtain data and data processing techniques is not appropriate |
| Discussion | Complete data, appropriate interpretation | Complete data, less interpretation | Complete data without interpretation | Incomplete data | Incomplete and incompatible data |
| Conclusion | The quality of conclusions is appropriate according to the results of the analysis and answers the research objectives | The quality of conclusions is appropriate according to the results of the analysis but does not answer the research objectives | The quality of conclusions is appropriate according to the results of the analysis but does not answer the research objectives | The quality of conclusions is not in accordance with the analysis and does not answer the research objectives | The quality of conclusions is very inappropriate |

EVALUATION 4 FINAL EXAMINATION

A. LEARNING OBJECTIVE

The expected achievement of SSAL courses from evaluation 4 are:

- Knowledge** : 1. Mastering the principles and philosophy of planning, and being able to articulate in understanding the problems in the field of the environment, especially regarding Marine Water Resources
2. Applying aspects of urban studies, regional studies, spatial science, data science & computer applications, socio-politics, environmental management, urban design, infrastructure systems, coastal studies, management, economics in relation to environmental management
- Special Skill** : 1. Able to analyze the spatial characteristics of cities, regions and coastal areas by understanding the relationship between a spatial and spatial aspects so that information is available as a basis for developing planning models and concepts.
2. Able to formulate models through qualitative and quantitative approaches to simulate scenarios for urban, regional and coastal settings.
- General Skill** : 1. Able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies the values of humanities in accordance with their fields of expertise

B. EVALUATION OBJECTIVE

This evaluation takes the form of WRITING EXAM with material concerning natural resource systems and terrestrial environments. The objectives of this evaluation are:

- Assess the level of success of teaching and learning activities related to the substance of the concept and management (thematic data and analysis) of natural resources and marine environments in regional and city planning (coastal planning).

C. EVALUATION SUBSTANCE

The substance of evaluation includes:

- Concept and Analysis of Marine Water Resources: Thematic Data and analysis processes of Coastal Ecosystems (Mangroves, Coral Reefs and Seagrass beds) and Fish Resources (SDI Plagis and SDI Demersal)
- Concept and Analysis of Marine Water SDA: Thematic Data and Ocean Oceanographic analysis processes (Flow, Wave, Temperature, Brightness, Salinity, PH, Chlorophyll, Conductivity, and DO)

- Concept and Analysis of Marine Water Resources: Thematic data and processes of Geomorphological analysis and Marine Bathymetry

D. EVALUATION IMPLEMENTATION

- Evaluations are individual,
- Evaluation held at the 16th week.
- Evaluation in the form of a written examination.

E. GRADING CRITERIA

- Evaluation weighting 30%