HANDBOOK MODULE

OPHTHALMOLOGY SPECIALIST PROGRAM MEDICAL FACULTY HASANUDDIN UNIVERSITY

Makassar, 2021

FOREWORD

Assalamu'alaikum Warahmatullahi Wabarakatuh

Praise our gratitude for the presence of Allah SWT and do not forget to also convey greetings and prayers to our lord, Rasulullah SAW, because thanks to His grace, the Handbook Module of Ophthalmology Specialist Program can be present.

This module is structured according to collegium standard, consist of 6 basic science and concepts modules, 2 basic ophthalmology modules, 13 core competences modules, and 5 final year project modules. Hopefully this Handbook Module of Ophthalmology Specialist Program can be a guidance in the learning process.

Wabillahi taufik wal hidayah,
Wassalamu'alaikum Warahmatullahi Wabarakatuh

Director of Ophthalmology Specialist Program

dr. Muhammad Abrar Ismail, Sp.M(K), M.Kes

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BASIC SCIENCE AND CONCEPT CLUSTER

APPENDIX MODULE 1 : PHILOSOPHY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20Y00510602
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	I (first)
Person responsible for the module	Prof. Dr. dr. Syarifuddin Rauf, Sp.A(K)
Lecturer	Prof. Dr. dr. Syarifuddin Rauf, Sp.A(K)
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the first semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture/tutorial Structure assignment Independent study Contact hours for lecture and literature reading are 79.33 hours The class size for teaching activities is approximately 3-5 students for each activity.
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours).
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO 1**: After knowing the definition of philosophy and philosophy of science, it is expected that MPPD participants: Able to explain the similarities and differences in philosophy and philosophy of science

	Being able to provide a definition of philosophy in their own words according to their field / scientific discipline, it is hoped that OSP participants will be able to think critically, trying to "find out" how to know the best method in providing health services according to their field of knowledge.
Content	This course aims to study basic theory of philosophy in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Multiple Choice Question
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** Formative Multiple Choice Question
Media employed	Video and PowerPoint Presentation.
Reading list	PHILOSOPHY OF SCIENCE, Muhammad Muslih THE PHILOSOPHY OF ADVANCED SCIENCE, Prof. Subakti Akhadiah, MK., Winda DewiL., M.Pd Philosophy of Science and Research Methodology, Prof. Dr. Ir. Satriono, MP., SRDm, Rita Hanafi, MP.

APPENDIX MODULE 2 : ETHICS-MEDICO-LEGAL

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20Y00510102
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	I (first)
Person responsible for the module	Dr. Cahyono Kaelan, Ph.D, Sp.PA (K), Sp.S
Lecturer	Dr. Cahyono Kaelan, Ph.D, Sp.PA (K), Sp.S R.Dr. Gatot Susilo Lawrence, Sp.PA (K), Sp.F, FESC
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the first semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture/tutorial Structure assignment Independent study Contact hours for lecture and literature reading are 79.33 hours The class size for teaching activities is approximately 3-5 students for each activity.
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours).
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO 1**: Students are expected able to master, live up to the principles of medical professional ethics and apply them in the services of the medical profession, health, education, research and be able to detect ethical violations of the medical and medicolegal professions so as to improve the quality and quality of medical professional services.

Content	This course aims to study basic theory of medical professional ethics and ethical violations of the medical profession in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Multiple Choice Question
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** Formative Multiple Choice Question
Media employed	Video and PowerPoint Presentation.
Reading list	Competency Standards for Indonesian Doctors, KKI, 2012 UNESCO Standards of Bioethics in Medical Education, 2014 WHO Framework of Interprofessional Collaboration Practice, 2010

APPENDIX MODULE 3 : RESEARCH METHODOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20Y00510202
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	I (first)
Person responsible for the module	Prof.Dr.dr.Dasril Daud, Sp.A (K)
Lecturer	Prof. Dr. dr. Dasril Daud, Sp. A (K) Prof. Dr. dr. Suryani As'ad, Msc Sp.GK
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the first semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture/tutorial Structure assignment Independent study Contact hours for lecture and literature reading are 79.33 hours The class size for teaching activities is approximately 3-5 students for each activity.
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours).
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO 1**: After understanding and mastering the knowledge and skills regarding Research Methodology in the field of Medical and Health sciences, it is hoped that PPDS participants will be able to apply procedures to compile research proposals, assess research results and publish them.

Content	This course aims to study basic theory of research methodology in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Presentation : 60% Face to face meeting : 40%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** Formative Face to face checklist Summative Skills : presentation checklist
Media employed	Video and PowerPoint Presentation.
Reading list	Designing Clinical Research, Stephen B. Hulley & Steven Cummings Medical Epidemiology, Raymond S. Greenberg Cs Basics of Clinical Research Methodology, Sudigdo Sastroasmoro & Sofyan Ismael,

APPENDIX MODULE 4 : BIOSTATISTICS AND COMPUTER STATISTICS

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20Y00510302
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	I (first)
Person responsible for the module	Dr. dr. Burhanuddin Bahar, MS
Lecturer	Dr. dr. Burhanuddin Bahar, MS Dr. dr. Andi Alfian Zainuddin, MKM dr. Gita Vita Soraya, PhD
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the first semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture/tutorial Structure assignment Independent study Contact hours for lecture and literature reading are 79.33 hours The class size for teaching activities is approximately 3-5 students for each activity.
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours).
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing all lecture activities, students are capable apply appropriate statistical tests in processing research data to reach appropriate conclusions and can be scientifically justified and able to properly compile systematic reviews and meta analyses.
Content	This course aims to study basic theory of biostatistics and computer statistics in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.

Forms of Assessment	Formative Multiple Choice Question
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** Formative Multiple Choice Question
Media employed	Video and PowerPoint Presentation.
Reading list	Dunn JO, Clark VA. (2009). Basic Statistics: a primer for the biomedical sciences (p.1 - 34). Yan F, Robert M, Li Y. (2017). Statistical methods and common problems in medical or biomedical science research (p. 1 - 7). Dahlan MS. (2011). Statistics for medicine and health: description, bivariate, and multivariate complementary applications using SPSS. Jakarta: Publisher Salemba Medika. Tawfik GM, et al. A step by step guide for conducting a systematic review and meta-analysis with simulation data. Tropical Medicine and Health (2019) 47:46. Munn Z, et al. What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. BMC Medical Research Methodology (2018) 18: 5 Mikolajewicz N, Komarova SV. Meta-Analytic Methodology for Basic Research: A Practical Guide. Front. Physiol., 27 March 2019.https://doi.org/10.3389/fphys.2019.00203 Text books / research articles / review articles from various journals provided by supervisors

APPENDIX MODULE 5 : CLINICAL EPIDEMIOLOGY AND MEDICINE

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20Y00510402
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	I (first)
Person responsible for the module	Prof. Dr. Nur Nasry Noor, MPH
Lecturer	Prof. Dr. Nur Nasry Noor, MPH Prof. dr. Husein Albar, Sp.A (K)
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the first semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture/tutorial Structure assignment Independent study Contact hours for lecture and literature reading are 79.33 hours The class size for teaching activities is approximately 3-5 students for each activity.
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours).
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	**CLO1**: After mastering the knowledge of the definition and limitations of clinical epidemiology and evidence-based medicine from diagnosis, morbidity and mortality, frequency, validity, bias and risk as well as the use of data from evidence-based medical material, it is hoped that students will be able to explain clinical epidemiology and evidence-based medicine.

Content	This course aims to study basic theory of clinical epidemiology and medicine in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Multiple Choice Question
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** Formative Multiple Choice Question
Media employed	Video and PowerPoint Presentation.
Reading list	Fletcher, Robert H., Fletcher, Suzanne W. Fletcher, and Wagner, Edward H.Clinical Epidemiology, The Essentials, Third Edition, 1996, Williams & Wilkinsm A Wavehy Company, Baltimore, Maryland Strauss SE, Richardson WS, Glasziou P, Haynes RB. 3rd Edition Elsevier Churchill Livingstone. Edinburgh, London, New York, Oxford, Philadelphia, Toronto 2005 Dan Mayer, 2010, Essential Evidence-Based Medicine, Second Edition, University Press, Cambridge

APPENDIX MODULE 6 : IMMUNOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20Y00510902
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	I (first)
Person responsible for the module	dr. Upik A.Miskad, Ph.D, Sp.PA (K)
Lecturer	Prof.dr. Syarifuddin Wahid, PhD, Sp.PA (K), SpF dr. Upik A.Miskad, Ph.D, Sp.PA (K) dr. St. Wahyuni, PhD dr. Agussalim Bukhari, M.Med, Ph.D, Sp.GK (K)
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the first semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture/tutorial Structure assignment Independent study Contact hours for lecture and literature reading are 79.33 hours The class size for teaching activities is approximately 3-5 students for each activity.
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours).
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: CLO 1: Students are expected able to master the basics of medical immunology and apply it for the development of medical immunology in the fields of education, research, and health services

Content	This course aims to study basic theory of medical immunology in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Multiple Choice Question
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** Formative Multiple Choice Question
Media employed	Video and PowerPoint Presentation.
Reading list	Abbul K Abbas & Andrew H. Litchman: Cellular and Molecular Immunology Eighth Edition Immunology is easier to understand: Prof.dr. Syarifuddin Wahid, PhD, Sp.PA (K), SpF, dr. Upik A. Miskad, PhD, Sp.PA (K). Surabaya. Brilliant International. 2019 Abbas AK, Lichtman AH. Basic Immunology. 4th Ed. Philadelphia: WB Saunders Company, 2012.

BASIC OPTHALMOLOGY CLUSTER

APPENDIX MODULE 7 : OUTPATIENT AND INPATIENT

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02510202
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	II (second)
Person responsible for the module	dr. Idayani Panggalo, Sp.M
Lecturer	dr. Ririn Nislawati, Sp.M., M.Kes dr. Junaedi Sirajuddin, Sp.M(K) Dr. dr. Halimah Pagarra, Sp.M(K) Dr. dr. Yunita, Sp.M(K)., M.Kes dr. Andi Pratiwi,Sp.M,M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the 2nd semester.
Type of teaching, contact hours	Teaching methods used in this course are: Role Modeling Lectures Clinical Tutorials Bedside Teaching Video Assisted Learning The class size for teaching activities is approximately 3-5 students for each activity. Contact hours for literature review/case report/journal/seminar are 39,67 hours, and BST/OR/Social Service 46,67 hours.
Workload	For this course, students are required to meet a minimum of 69,06 hours in one semester (80% from total hours), which consist of: - 31,74 hours for literature review/case report/journal/seminar - 37,33 hours for BST/OR/Social Service
Credit points	2 credit points (equivalent with 3.45 ECTS)

Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning outpatient and inpatient care (A) **CLO2**: Able to determine basic therapeutic clinical decision according to Competency Standards for Indonesian Ophthalmologist (C1) **CLO3**: Able to implement the basic diagnostic skills according to Competency Standards for Indonesian Ophthalmologist (C1)
Content	This course aims to study basic theory and skill in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Workplace based assessment (DOPS) Summative Multisource feedback: 10% Skill examination (OSCE): 90%
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. **Form of examination:** Formative Skills: DOPS Competence: DOPS Summative Attitude: Multisource feedback Skills: OSCE Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology Will's eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 8 : BASIC OPHTHALMOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02510202
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	II (second)
Person responsible for the module	dr. Dyah Ayu Windy, Sp.M
Lecturer	dr. Marliyanti N. Akib, Sp.M(K), M.Kes dr. Yunita, Sp.M(K), M.Kes dr. Muh. Abrar Ismail, Sp.M(K), M.Kes dr. Andi Suryanita Tadjuddin, Sp.M dr. Muhammad Irfan, Sp.M, MARS dr. Idayani Panggalo, Sp.M dr. Dyah Ayu Windy, Sp.M
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the second semester.
Type of teaching, contact hours	Teaching methods used in this course are: Role Modelling Interactive Lecture Clinical Tutorial Literature reading The class size for teaching activities is approximately 3-5 students for other activities. Contact hours for lecture and literature reading (textbook and journal reading) are 39.67 hours, and day care activities, discussion or shift are 39,67 hours
Workload	For this course, students are required to meet a minimum of 63,44 hours in one semester (80% from total hours), which consist of: 31,72 hours for literature review/case report/journal/seminar 31.72 hours for Day care activities/discussion/shift
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist

	collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in Basic Ophthalmology subjects (A) **CLO2 :** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the Basic Ophthalmology subject (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the Basic Ophthalmology (K2) **CLO4 :** Able to compile ideas, thoughts and scientific arguments responsibly and based on academic ethics, as well as communicate through the media to the academic community and the wider community (S2) **CLO5 :** Able to determine basic therapeutic clinical decision in diseases of the Basic Ophthalmology subject according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6 :** Able to implement the basic diagnostic skills in the field of vitreoretina diseases according to the Competency Standards for Indonesian ophthalmologists (C2)
Content	This course aims to study basic theory and skill in ophthalmology according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Workplace based assessment (DOPS) Summative Multisource feedback: 10% Oral presentation: 50% Skill examination (OSCE): 40%
Study and examination requirements and forms of examinatio	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. **Form of examination:** Formative Skills: DOPS, Discussion Competence: DOPS Summative

	Attitude: Multisource feedback Cognitive: Oral Presentation Skills: OSCE Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology Will’s eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

CORE COMPETENCE CLUSTER

APPENDIX MODULE 9 : NEURO-OPHTHALMOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02510405
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	II (second)
Person responsible for the module	Dr. dr. Yunita, Sp.M(K), M.Kes
Lecturer	Dr. dr. Batari Todja Umar, Sp.M(K) Dr. dr. Yunita, Sp.M(K), M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the second semester.
Type of teaching, contact hours	Teaching methods used in this course are: ● Lecture ● Dry Lab ● Clinical Tutorial ● Bedside Teaching (BST) ● Case Reflection ● Video assisted learning ● Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activity. Contact hours for dry labs and video assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours.

Workload	For this course, students are required to meet a minimum of 217.6 hours in one semester (80% from total hours), which consist of: - 36,25 hours for dry lab and video assisted learning. - 36,25 hours for lecture and literature reading (textbook and journal reading). - 72,55 hours for day care activities, case reflection (case review /case report) and shift. - 72,55 hours for clinical tutorial, BST and social service
Credit points	6 credit points (equivalent with 9.05 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1 competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in Neuro-ophthalmology subjects (A) **CLO2:** Able to associate basic knowledge in neuro-anatomy, embryology, physiology, and genetics of the visual pathway, cranial nerves, pupil and ocular motility (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the visual pathway, cranial nerves, pupil and ocular motility (K2) **CLO4:** Able to implement the diagnostic skills in the visual pathway, cranial nerves, pupil and ocular motility diseases according to the Competency Standards for Indonesian ophthalmologists (C2) **CLO5:** Able to determine therapeutic clinical decision in diseases of the visual pathway, cranial nerves, pupil and ocular motility according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6:** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the visual pathway, cranial nerves, pupil and ocular motility according to the Competency Standards for Indonesian Ophthalmologists (S1)
Content	This course aims to study basic science, pathogenesis, and disease management of the visual pathway, cranial nerves,

	pupil and ocular motility according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Workplace based assessment (CbD, DOPS) Summative 1. Written examination (MCQ): 30% 2. Skill examination (OSCE): 40% 3. Self-reflection interview: 10% 4. Portfolio interview: 10% 5. Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get final grade. **Form of examination:** Formative Cognitive: CBD Skills: DOPS Competence: DOPS Summative Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Oral presentation Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Will's eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology *Kanski's Clinical Ophthalmology: A Systematic Approach Ninth Edition.* United Kingdom: Elsevier *Practical Ophthalmology*

APPENDIX MODULE 10 : REFRACTION AND LOW VISION

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02510306
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	II (second)
Person responsible for the module	dr. Adelina T. Poli, Sp.M, M.Kes
Lecturer	dr. Adelina T. Poli, Sp.M, M.Kes Dr. dr. Purnamanita Syawal, Sp.M, MARS dr. Nursyamsi, Sp.M, M.Kes dr. Muhammad Irfan, MARS, Sp.M
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the second semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Dry Lab Clinical Tutorial Bedside Teaching (BST) Case Reflection Video assisted learning Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activity. Contact hours for dry labs and video assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours.

Workload	For this course, students are required to meet a minimum of 217.6 hours in one semester (80% from total hours), which consist of: 36,25 hours for dry lab and video assisted learning. 36,25 hours for lecture and literature reading (textbook and journal reading). 72,55 hours for day care activities, case reflection (case review /case report) and shift. 72,55 hours for clinical tutorial, BST and social service
Credit points	6 credit points (equivalent with 10.92 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1 competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in refraction and low vision (A) **CLO2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the refraction and low vision (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the refraction and low vision diseases (K2) **CLO4:** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the refraction and low vision according to the Competency Standards for Indonesian Ophthalmologists (S1) **CLO5:** Able to determine therapeutic clinical decision in diseases of the refraction and low vision according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6:** Able to implement the diagnostic skills in the field of refraction and low vision diseases according to the Competency Standards for Indonesian ophthalmologists (C2)
Content	This course aims to study basic science, pathogenesis, and disease management of the refraction and low vision according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace based assessment (CbD, DOPS) <u>Summative</u>

	Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10% Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Oral presentation Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology IACLE Contact Lens Course, International Association of Contact Lens Educator Low Vision Evaluation and Manual Will's eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 11 : GLAUCOMA

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02520207
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	III (third)
Person responsible for the module	dr. Ririn Nislawati, Sp.M, M.Kes
Lecturer	Dr. dr Noro Waspodo, Sp.M dr. A. Tenrisanna Devi, Sp.M(K), MARS dr. Ririn Nislawati,Sp.M, M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the third semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Dry Lab Clinical Tutorial Bedside Teaching (BST) Case Reflection Video-assisted learning Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activities. Contact hours for dry labs and video-assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day-care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours.
Workload	For this course, students are required to meet a minimum of 255.7 hours in one semester (80% from total hours), which consist of: 36,25 hours for dry lab and video-assisted learning. 36,25 hours for lecture and literature reading (textbook and journal reading). 72,55 hours for day-care activities, case reflection (case review /case report) and shift. 72,55 hours for clinical tutorial, BST and social service

Credit points	7 credit points (equivalent with 12.79 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1 and 2 competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics conducting relationship within educational environment during learning process in glaucoma subjects (A) **CLO2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of glaucoma subjects (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of glaucoma diseases (K2) **CLO4:** Able to implement the diagnostic skills in the field of glaucoma diseases according to the Competency Standards for Indonesian Ophthalmologists (C2) **CLO5:** Able to determine therapeutic clinical decisions in the field of glaucoma subjects according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6:** Able to perform surgical skills to manage diseases in the field of glaucoma subjects according to the Competency Standards for Indonesian Ophthalmologists (C3) **CLO7:** Able to implement logical and critical thinking to appraise a scientific paper related to glaucoma subjects according to the Competency Standards for Indonesian Ophthalmologists (CLO 7)
Content	This course aims to study basic science, pathogenesis, and disease management of glaucoma diseases according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace-based assessment (CbD, DOPS) <u>Summative</u> Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10% Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc.

	Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, Self-reflection Skills: Portfolio Competence: MCQ, OSCE, OSCAR
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology Asia Pacific Glaucoma Guidelines, Asia-Pacific Glaucoma Society ICO Guidelines for Glaucoma Eye Care, International Council of Ophthalmology Becker-Shaffer's Diagnosis and Therapy of the Glaucomas Chandler and Grant's Glaucoma Will's eye manual *Kanski's Clinical Ophthalmology: A Systematic Approach Ninth Edition.* United Kingdom: Elsevier Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology

APPENDIX MODULE 12 : INFECTION AND IMMUNOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02520107
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	III (third)
Person responsible for the module	dr. Hasnah, Sp.M(K), M.Kes
Lecturer	dr. Junaedi Sirajuddin, Sp.M(K) dr. Hasnah, Sp.M(K), M.Kes dr. Sitti Soraya Taufik, Sp.M(K), M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the third semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Dry Lab Wet Lab Clinical Tutorial Bedside Teaching (BST) Case Reflection Video assisted learning Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activity. Contact hours for dry labs and video assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours.
Workload	For this course, students are required to meet a minimum of 217.6 hours in one semester (80% from total hours), which consist of: 36,25 hours for dry lab and video assisted learning. 36,25 hours for lecture and literature reading (textbook and journal reading). 72,55 hours for day care activities, case reflection (case review /case report) and shift.

	72,55 hours for clinical tutorial, BST and social service
Semester credit point	7 semester credit point (equivalent with 12.79 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1 and 2 competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO 1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in Infection and Immunology, infection and immunology subjects (A) **CLO 2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the Infection and Immunology, infection and immunology subjects (K1) **CLO 3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the Infection and Immunology, infection and immunology subjects (K2) **CLO 4:** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of external eye, infection and immunology subjects according to the Competency Standards for Indonesian Ophthalmologists (S1) **CLO 5:** Able to determine therapeutic clinical decision in diseases of the external eye, infection and immunology subjects according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO 6:** Able to implement the diagnostic skills in the field of external eye, infections and immunology subjects according to the Competency Standards for Indonesian Ophthalmologist (C2) **CLO 7**: Able to perform surgical skills to manage diseases in the field of infection and immunology subject according to the Competency Standards for Indonesian Ophthalmologists (C3).
Content	This course aims to study basic science, pathogenesis, and disease management of external eye, infections and immunology disease according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace based assessment (CbD, DOPS) <u>Summative</u> Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10%

	Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Oral presentation Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology Will's eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 13 : VITREORETINA

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02520305
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	IV (fourth)
Person responsible for the module	Dr. dr. Habibah S. Muhiddin, Sp.M(K)
Lecturer	Dr. dr. Habibah S. Muhiddin, Sp.M(K) Prof. dr. Budu, Ph.D, Sp.M(K), M.MedEd dr. Andi Muhammad Ichsan, Ph.D, Sp.M(K) dr. Andi Suryanita Tadjuddin, Sp.M dr. Idayani Panggalo, Sp.M dr. Dyah Ayu Windy, Sp.M
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the fourth semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Clinical Tutorial Bedside Teaching (BST) Case Reflection Video assisted learning Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activities. Contact hours for lecture and literature reading (textbook and journal reading) are 90.67 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST, video assisted learning and social service 45.3 hours.
Workload	For this course, students are required to meet a minimum of 181,3 hours in one semester (80% from total hours), which consist of: 72,525 hours for literature review/case report/journal/seminar 72,525 hours for Day care activities/discussion/shift 36,25 hours for Clinical Tutorial/BST/OR/Social Service

Credit points	5 credit points (equivalent with 9.33 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1 and 2 competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in vitreoretina subjects (A) **CLO2 :** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the vitreoretinal structure (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the vitreoretinal diseases (K2) **CLO4 :** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the vitreoretinal diseases according to the Competency Standards for Indonesian Ophthalmologists (S1) **CLO5 :** Able to determine therapeutic clinical decision in diseases of the vitreoretinal diseases according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6 :** Able to implement the diagnostic skills in the field of vitreoretinal diseases according to the Competency Standards for Indonesian ophthalmologists (C2) **CLO7 :** Able to perform surgical skills to manage diseases of the vitreoretinal disease according to the Competency Standards for Indonesian Ophthalmologists (C3)
Content	This course aims to study basic science, pathogenesis, and disease management of vitreoretinal diseases according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace based assessment (CbD, DOPS) <u>Summative</u> Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10% Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc.

	Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Oral presentation Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology Will's eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 14 : CATARACT AND REFRACTIVE SURGERY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02520406
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	IV (fourth)
Person responsible for the module	dr. Andi Akhmad Faisal, Sp.M, M.Kes
Lecturer	dr. Hamzah, Sp.M(K) dr. Muhammad Abrar Ismail, Sp.M (K), M.Kes dr. Andi Akhmad Faisal, Sp.M, M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the fourth semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Dry Lab Clinical Tutorial Bedside Teaching (BST) Case Reflection Video assisted learning Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activity. Contact hours for dry labs and video assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours.
Workload	For this course, students are required to meet a minimum of 217.6 hours in one semester (80% from total hours), which consist of: 36,25 hours for dry lab and video assisted learning. 36,25 hours for lecture and literature reading (textbook and journal reading). 72,55 hours for day care activities, case reflection (case review /case report) and shift. 72,55 hours for clinical tutorial, BST and social service

Credit points	6 credit points (equivalent with 10.92 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1 and 2 Competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in cataract and refractive surgery(A) **CLO2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the cataract and refractive surgery(K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the cataract and refractive surgery diseases (K2) **CLO4:** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the cataract and refractive surgery according to the Competency Standards for Indonesian Ophthalmologists (S1) **Competence** **CLO5:** Able to determine therapeutic clinical decision in diseases of the cataract and refractive surgery according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6:** Able to implement the diagnostic skills in the field of cataract and refractive surgery diseases according to the Competency Standards for Indonesian ophthalmologists (C2) **CLO7:** Students are able to manage operating room management, including management of operating instruments, operating techniques, patient safety, infection control, and counselling on operative actions in the field of ophthalmology expertise. (C3)
Content	This course aims to study basic science, pathogenesis, and disease management of the cataract and refractive surgery according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace based assessment (CbD, DOPS) <u>Summative</u> Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10% 5. Multisource feedback: 10%

Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Oral presentation Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology Kanski's Clinical Ophthalmology: A Systematic Approach Ninth Edition. United Kingdom: Elsevier Will's eye manual Adler's Physiology of The Eye AK Khurana - Comprehensive Ophthalmology

APPENDIX MODULE 15 : LITERATURE REVIEW

Module name	Course Module
Module level, if applicable	-
Code, if applicable	20C02520502
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	IV (fourth)
Person responsible for the module	dr. Muh. Abrar Ismail, Sp.M(K), M.Kes
Lecturer	dr. Muh. Abrar Ismail, Sp.M(K), M.Kes dr. Hasnah, Sp.M(K), M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the fourth semester.
Type of teaching, contact hours	Teaching methods used in this course are: - Lecture/tutorial - Structured assignment - Independent study Total contact hours is 79.33 hours (consist of lecture, structured assignment and independent study)
Workload	For this course, students are required to meet a minimum of 63.46 hours in one semester (80% from total hours)
Credit points	2 credit points (equivalent with 3.17 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 80% experience in knowledge and skill competencies based on ophthalmologist collegium requirements.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course students are expected to be: able to apply and analyze scientific journals and other references to compile a literature review able to make presentation regarding to the literature review
Content	Making a presentation about literature review of certain topic in ophthalmologist

Forms of Assessment	Script Writing Systematics Script Presentation Discussion skills and abilities Mastering presentation materials
Study and examination requirements and forms of examination	**Study and examination requirements:** Student must discussed and revised manuscript with advisor lecturers Student must delivered the manuscript to all lecturers **Form of examination:** Summative Script Writing Systematics Script Presentation Discussion skills and abilities Mastering presentation materials
Media employed	PowerPoint Presentation LCD projector + pointer Laptop E-book
Reading list	**Main Reference:** DESIGNING CLINICAL RESEARCH, Stephen B. Hulley & Steven Cummings (2018) MEDICAL EPIDEMIOLOGY, Raymond S. Greenberg cs (2013) **Supporting Reference:** DASAR-DASAR METODOLOGI PENELITIAN KLINIK Edisi 5, Sudigdo Sastroasmoro & Sofyan Ismael (2014)

APPENDIX MODULE 16 : PEDIATRIC OPHTHALMOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02530504
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	V (fifth)
Person responsible for the module	Dr.dr.Noor Syamsu, Sp.M(K), M.Kes, MARS
Lecturer	Dr.dr.Noor Syamsu, Sp.M(K), M.Kes, MARS Dr.dr.Marlyanti Nur Rahmah, Sp.M(K), M.Kes, dr.Ratih Natasha Maharani, Sp.M(K), M.Kes, dr.Rani Yunita Patong, Sp.M
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the fifth semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Dry Lab Clinical Tutorial Bedside Teaching (BST) Case Reflection Video-Assisted learning Literature reading The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activities. Contact hours for dry labs and Video-Assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours.
Workload	For this course, students are required to meet a minimum of 217.6 hours in one semester (80% from total hours), which consist of: 36,25 hours for dry lab and Video-Assisted learning. 36,25 hours for lecture and literature reading (textbook and journal reading). 72,55 hours for daycare activities, case reflection (case review /case report) and shift.

	72,55 hours for clinical tutorial, BST and social service
Credit points	6 credit points (equivalent with 10.64 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1, phase 2, and phase 3 Competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in refraction and low vision (A) **CLO2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the refraction and low vision (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the refraction and low vision diseases (K2) **CLO4 :** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the refraction and low vision according to the Competency Standards for Indonesian Ophthalmologists (S1) **Competence** **CLO5:** Able to determine therapeutic clinical decision in diseases of the refraction and low vision according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6 :** Able to implement the diagnostic skills in the field of refraction and low vision diseases according to the Competency Standards for Indonesian ophthalmologists (C2)
Content	This course aims to study basic science, pathogenesis, and disease management of the refraction and low vision according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace-based assessment (CbD, DOPS) <u>Summative</u> Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10% Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class due to sickness, etc.

	Students must submit all class assignments before the deadline. Students must attend the exam to get a final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Oral presentation Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 17 : RECONSTRUCTION AND OCULOPLASTY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02530207
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	V (fifth)
Person responsible for the module	dr. Andi Pratiwi, Sp.M, M.Kes
Lecturer	1. Dr. dr. Halimah Pagarra, Sp.M(K) 2. dr. Suliati P. Amir, Sp.M, M.MedEd 3. dr. Andi Pratiwi, Sp.M, M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the fifth semester.
Type of teaching, contact hours	Teaching methods used in this course are: ● Lecture ● Discussion ● Collaborative ● Cooperative learning ● Wet lab/ practice ● Hands-on under supervision ● Independent ● Video-assisted learning ● Lecture (i.e., group investigation, small group discussion, case study, role play) ● Structured assignments (i.e., essays and reflective paper) ● Clinical fieldwork (i.e. field observation). The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activity. Contact hours for dry labs and video assisted learning are 45,3 hours, lecture and literature reading (textbook and journal reading) are 45,3 hours, day care activities/Case reflection (case review /case report) or shift are 90,67 hours and clinical tutorial, BST and social service 90,67 hours
Workload	For this course, students are required to meet a minimum of 253,9 hours in one semester (80% from total hours), which consist of:

	• 72,55 hours for wet lab • 72,55 hours for literature review/case report/journal/seminar • 72,55 hours for Day care activities/discussion/shift • 36,25 hours for BST/OR/Social Service
Credit points	7 credit points (equivalent with 12.51 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1, phase 2, and phase 3 Competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in the Reconstruction and Oculoplasty Courses (A) **CLO 2**: Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the palpebral structures, lacrimal system and orbit (K1) **CLO 3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the eyelids, lacrimal system and orbit diseases (K2) **CLO 4:** Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the eyelids, lacrimal system and orbit according to the Competency Standards for Indonesian Ophthalmologists (S1) **CLO 5:** Able to determine therapeutic clinical decision in diseases of the eyelids, lacrimal system and orbit according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO 6:** Able to implement the diagnostic skills in the field of eyelids, lacrimal system and orbit according to the Competency Standards for Indonesian ophthalmologists (C2) **CLO 7:** Able to perform surgical skills to manage diseases of the eyelids, lacrimal system and orbit according to the Competency Standards for Indonesian Ophthalmologists (C3)
Content	This course aims to study basic science, pathogenesis, and disease management of the reconstruction and oculoplastic according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	<u>Formative</u> Workplace-based assessment (CbD, DOPS) <u>Summative</u> 1. Written examination (MCQ): 30% 2. Skill examination (OSCE): 40% 3. Self-reflection interview: 10%

	4. Portfolio interview: 10% 5. Multisource feedback: 10%
Study and examination requirements and forms of examination	● Students must inform the lecturer if they will not attend the class due to sickness, etc. ● Students must submit all class assignments before the deadline. ● Students must attend the exam to get final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions (MCQ) using Vignettes, Self-reflection Skills: Portfolio Competence: MCQ, OSCE, OSCAR
Media employed	Video and PowerPoint Presentation
Reading list	1. Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology 2. Practical Ophthalmology, American Academy of Ophthalmology 3. AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 18 : COMMUNITY OPHTHALMOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02530305
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in whichthe module is taught	VI (sixth)
Person responsiblefor the module	dr. Ahmad Ashraf Amalius, MPH, Sp.M(K), M.Kes
Lecturer	dr. Rahasiah Taufik, Sp.M(K) dr. Ahmad Ashraf Amalius, MPH, Sp.M(K), M.Kes dr. Andi Akhmad Faisal, Sp.M, M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the sixth semester.
Type of teaching, contact hours	Teaching methods used in this course are: Discussion Practice filed The class size for lecture is approximately 1-2 students, while for clinicalfieldwork is about 3-5 students for each lecturer. Contact hours for clinical fieldwork is 233,33 hours.
Workload	For this course, students are required to meet a minimum of 233,33 hours in one semester, which consist of: 233,33 hours for field work.
Credit points	5 credit points (equivalent with 9.33 ECTS)
Requirements according to the examination regulations	Students must have attended all classes and submitted all classassignments that are scheduled before the mid and final tests.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1, phase 2, and phase 3 Competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1 :** Able to explain the basic principles of epidemiology in the field of eye health **(C4)** **CLO2:** Students are able to explain the principles of biostatistics in the field of ophthalmology **(S3)**

	CLO3: Students are able to explain the principles of eye health promotion and education **(C4)** **CLO4:** Students are able to explain the basics of eye health economics **(C4)** **CLO5:** Students are able to explain WHO global programs in the field of eye health **(C3)** **CLO6:** Students are able to explain and apply the steps of planning and program management in the field of eye health **(C4)** **CLO7:** Students are able to explain blindness prevention programs based on the highest prevalence of eye diseases in the world. **(C4)**
Content	This course aims to study about Community Health according to the Competency Standards for Indonesian ophthalmologists
Forms of Assessment	Formative Workplace based assessment (CbD, DOPS) Summative Written examination (MCQ): 30% Skill examination (OSCE): 10% Self-reflection interview: 15% Portfolio interview: 35% Attitude: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** Students must attend 15 minutes before the class starts. Students must switch off all electronic devices. Students must inform the lecturer if they will not attend the class dueto sickness, etc. Students must submit all class assignments before the deadline. Students must attend the exam to get final grade. **Form of examination:** Formative Cognitive: CBD Skills: DOPS, Discussion Competence: DOPS Summative Attitude: Multisource feedback Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE, Competence: OSCE
Media employed	Video and PowerPoint Presentation.
Reading list	*Sommer, Alfred. 1980. Epidemiology and Statistics for the Ophthalmologist. Oxford University Press: New York*

APPENDIX MODULE 19 : STRABISMUS

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02530504
Subtitle, if applicable	-
Course, if applicable	Strabismus
Semester(s) in which the module is taught	VI (sixth)
Person responsible for the module	dr. Rani Yunita Patong, Sp.M
Lecturer	Dr. dr. Noor Syamsu, Sp.M(K), MARS, M.Kes Dr. dr. Marlyanti N. Akib, Sp.M(K), M.Kes Dr. dr. Yunita, Sp.M(K), M.Kes dr. Ratih Natasha Maharani, Sp.M, M.Kes dr. Rani Yunita Patong, Sp.M
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the sixth semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture (i.e., Small Group Discussion (SGD), case study, collaborative learning) Clinical and skill assignment (i.e., Case Based Discussion (CbD), Direct Observation of Procedural Skills (DOPS), assistant in operation room, portfolio) Independent learning The class size for teaching activities is approximately 3-5 students for each activity. Contact hours for wet labs are 45,33 hours, literature review/case report/journal/seminar are 45,33 hours, Day care activities/discussion/shift are 45,33 hours and BST/OR/Social Service 45,33 hours.
Workload	For this course, students are required to meet a minimum of 145 hours in one semester (80% from total hours), which consist of: 36,25 hours for wet lab 36,25 hours for literature review/case report/journal/seminar 36,25 hours for Day care activities/discussion/shift 36,25 hours for BST/OR/Social Service
Credit points	4 credit points (equivalent with 7.19 ECTS)

Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1, phase 2, and phase 3 Competence certificate
Module objectives/intended learning outcomes	**Attitude** **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in strabismus subjects (A1) **Cognitive** **CLO2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the oculomotor structures and binocular system (K1) **CLO3:** Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the strabismus diseases (K2) **Competences** **CLO4:** Able to implement the diagnostic skills in the field of strabismus diseases according to the Competency Standards for Indonesian ophthalmologists (C2) **CLO5:** Able to determine therapeutic clinical decision in strabismus diseases according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO6:** Able to perform surgical skills to manage strabismus diseases according to the Competency Standards for Indonesian Ophthalmologists (C3) **Skills** **CLO7:** Able to implement logical and critical thinking to appraise a scientific paper related to strabismus diseases according to the Competency Standards for Indonesian Ophthalmologists (S1)
Content	This course aims to study basic science, pathogenesis, and disease management of the strabismus according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Workplace based assessment (CbD, DOPS) Summative Written examination: 30% Skill examination: 40% Self-reflection: 10% Portfolio: 10% Multisource feedback: 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Student must attend exam to get final grade

	Form of examination: Formative Cognitive: CbD, SOOCA, Self-reflection Skills: DOPS, OSATS Summative Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview Skills: OSCE, portfolio: Interview Affective: Multisource feedback
Media employed	Book Video PowerPoint Presentation Journal
Reading list	American Academy of Ophthalmology, 2011. Paediatric Ophthalmology and Strabismus. San Francisco: Basic and Clinical Science Course. Ophthalmology, A.A.O. (2009) Practical Ophthalmology: A Manual for Beginning Residents. 6th Edition, 6th Revised Edition, American Academy of Ophthalmology, San Francisco. The Wills Eye Manual : Office and Emergency Room Diagnosis and Treatment of Eye Disease. Philadelphia :Lippincott, 1994. Adler FH, Levin LA. (2011). Adler's Physiology of the Eye: Clinical Application, 11th ed. Archives of Ophthalmology. Bowling, Brad. Kanski's Clinical Ophthalmology. 8th ed., W B Saunders, 2015. Khurana AK. Comprehensive Ophthalmology. 6thed. New Delhi, Philadelphia, 2015.

APPENDIX MODULE 20 : ONCOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02530402
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VI (sixth)
Person responsible for the module	dr. Andi Pratiwi, Sp.M, M.Kes
Lecturer	Dr. dr. Halimah Pagarra, Sp.M(K) dr. Suliati.P.Amir,Sp.M, M.Med.Ed dr. Andi Pratiwi,Sp.M,M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the sixth semester.
Type of teaching, contact hours	Teaching methods used in this course are: Lecture Case Based Discussion Bed Side Teaching Collaborative Cooperative learning Independent learning Wet lab/Dry lab Hands-on under supervision Video assisted learning Role Modelling Journal Reading Literature Reading The class size for each teaching activities is about 3-5 students for each activity. Contact hours for wet lab is 45,3 hours and Day care activities/discussion/shift are 45,3 hours
Workload	For this course, students are required to meet a minimum of 253,9 hours in one semester (80% from total hours), which consist of: 36,25 hours for wet lab 36,25 hours for Day care activities/discussion/shift

Credit points	2 credit points (equivalent with 3.45 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace based assessment.
Recommended prerequisites	Students must have passed enrichment phase and have phase 1, phase 2, and phase 3 Competence certificate
Module objectives/Course Learning Objective	After completing the course students are expected to be: **CLO1:** Able to act out academic attitudes and ethics in conducting relationship within educational environment during learning process in the ophthalmic pathology and intraocular tumor subjects (A) **CLO 2:** Able to associate basic knowledge in anatomy, embryology, physiology, and genetics of the ophthalmic pathology and intraocular tumor subjects (K1) **CLO 3**: Able to determine the theoretical concepts covering clinical epidemiology and pathogenesis of the ophthalmic pathology and intraocular tumor subjects (K2) **CLO 4**: Able to implement logical and critical thinking to appraise a scientific paper related to diseases of the ophthalmic pathology and intraocular tumor subjects according to the Competency Standards for Indonesian Ophthalmologists (S1) **CLO 5**: Able to determine therapeutic clinical decision in diseases of the ophthalmic pathology and intraocular tumor subjects according to the Competency Standards for Indonesian Ophthalmologists (C1) **CLO 6**: Able to implement the diagnostic skills in the field of ophthalmic pathology and intraocular tumor subjects according to the Competency Standards for Indonesian ophthalmologists (C2) **CLO 7**: Able to perform surgical skills to manage diseases of the ophthalmic pathology and intraocular tumor subjects according to the Competency Standards for Indonesian Ophthalmologists (C3)
Content	This course aims to study basic science, pathogenesis, and disease management of the ophthalmic pathology and intraocular tumor subjects according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative Workplace-based assessment (CbD, DOPS) Summative Written examination (MCQ): 30% Skill examination (OSCE): 40% Self-reflection interview: 10% Portfolio interview: 10%

	Multisource feedback: 10%
Study and examination requirements and forms of examination	- Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. **Form of examination:** <u>Formative</u> Cognitive: CBD Skills: DOPS Competence: DOPS <u>Summative</u> Attitude: Multisource feedback Cognitive: Multiple Choice Questions (MCQ) using Vignettes, Self-reflection Skills: Portfolio Competence: MCQ, OSCE, OSCAR
Media employed	Video and PowerPoint Presentation
Reading list	Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Practical Ophthalmology, American Academy of Ophthalmology AK Khurana - Comprehensive Ophthalmology Kanski Clinical Ophthalmology

APPENDIX MODULE 21 : RESEARCH PROPOSAL SEMINAR

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02530604
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VI (sixth)
Person responsible for the module	dr. M. Abrar Ismail, Sp.M (K), M.Kes
Lecturer	dr. Muh. Abrar Ismail, Sp.M (K), M.Kes Supporting Lecturer : Dr. dr. Arifin Seweng, MPH 2. Dr. dr. Burhanuddin Bahar, MS 3. Dr. dr. Ilhamjaya Patellongi, MS 4. Dr. dr. Idham Jaya Ganda, Sp.A (K) 5. Research Supervisor
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the sixth semester.
Type of teaching, contact hours	Teaching methods used in this course are: - Lecture/tutorial - Structured assignment - Independent study Total contact hours is 186.67 hours (consist of lecture, structured assignment and independent study)
Workload	For this course, students are required to meet a minimum of 149.33 hours in one semester (80% from total hours)
Credit points	4 credit points (equivalent with 7.47 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO**

	Students are able to show academic attitudes and ethics in carrying out learning in the proposal seminar course Students are able to apply clinical epidemiology, research methodology and biostatistics within the scope of eye health sciences
Content	This course is a prerequisite for making a final project where students will apply clinical epidemiology, research methodology and biostatistics in making research results according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Making a presentation proposal research of certain topic in ophthalmologist Script Writing Systematics Script Presentation Discussion skills and abilities Mastering presentation materials
Study and examination requirements and forms of examination	**Study and examination requirements:** Student must discussed and revised manuscript with advisor lecturers Student must delivered the manuscript to all lecturers **Form of examination:** <u>Summative</u> Script Writing Systematics Script Presentation Discussion skills and abilities Mastering presentation materials
Media employed	PowerPoint Presentation Manuscriopt LCD proyektor + pointer Laptop E-book
Reading list	**Main Reference:** 1. DESIGNING CLINICAL RESEARCH, Stephen B. Hulley & Steven Cummings (2018) 2. MEDICAL EPIDEMIOLOGY, Raymond S. Greenberg cs (2013) 3. Fundamentals of Clinical Research Methodology 4. Statistics for Medicine and Health **Supporting Reference:** 5. DASAR-DASAR METODOLOGI PENELITIAN KLINIK Edisi 5, Sudigdo Sastroasmoro & Sofyan Ismael (2014)

FINAL YEAR PROJECT CLUSTER

APPENDIX MODULE 22 : APPLIED OPHTHALMOLOGY

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02540102
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VII
Person responsible for the module	dr. M. Abrar Ismail, Sp.M(K), M.Kes
Lecturer	1. DR. dr. Yunita, Sp.M (K), M.Kes 2. dr. Muh. Abrar Ismail, Sp.M (K), M.Kes 3. DR. dr. Marlyanti Nur Rahmah, Sp.M (K), M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the 7th semester.
Type of teaching, contact hours	Teaching methods used in this course are: • Role modelling • Clinical Tutorial • Bed Side Teaching (BST) • Case Reflection • Video assisted learning The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activities. Contact hours for clinical tutorial, BST, video assisted learning 93.33 hours.
Workload	For this course, students are required to meet a minimum of 74.64 hours in one semester (80% from total hours)
Credit points	2 credit points (equivalent with 3.73 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and internship level, have passed phase 1, phase 2, and phase 3 competence certificate, have finished research proposal seminar.
Module objectives/intended learning outcomes	After completing the course students are expected to be: 1. Able to act out academic attitudes and ethics in conducting relationship within educational environment during applied ophthalmology subject

	2. Able to determine therapeutic clinical decision in common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during applied ophthalmology subject 3. Able to implement the diagnostic skills in common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during applied ophthalmology subject 4. Able to perform surgical skills to manage common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during applied ophthalmology subject
Content	This course is the final stage for PPDS students before conducting an independent stage at a satellite hospital so that students are able to make clinical diagnoses and carry out eye disease management independently and completely according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Formative - Summative Written examination (MCQ): 30% Self-reflection interview: 20% Multisource feedback: 10% Evaluation checklist form: 40%
Study and examination requirements and forms of examination	**Study and examination requirements:** • Students must attend 15 minutes before the class starts. • Students must switch off all electronic devices. • Students must inform the lecturer if they will not attend the class due to sickness, etc. • Students must submit all class assignments before the deadline. • Students must attend the exam to get a final grade. **Form of examination:** Formative Cognitive: MCQ, Evaluation checklist form Skills: Evaluation checklist form Competence: Self-reflection, Evaluation checklist form
Media employed	Video
Reading list	1. Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology 2. Practical Ophthalmology, American Academy of Ophthalmology 3. Will's eye manual 4. Adler's Physiology of The Eye 5. AK Khurana - Comprehensive Ophthalmology 6. Kanski Clinical Ophthalmology 7. Epidemiology of Eye Disease, 8. Fundamentals of Clinical Research Methodology 9. Textbook of Ophthalmology

APPENDIX MODULE 23 : RESEARCH RESULT SEMINAR

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02540304
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VII (seventh)
Person responsible for the module	dr. M. Abrar Ismail, Sp.M (K), M.Kes
Lecturer	dr. Muh. Abrar Ismail, Sp.M (K), M.Kes Supporting Lecturer : Dr. dr. Arifin Seweng, MPH Dr. dr. Burhanuddin Bahar, MS Dr. dr. Ilhamjaya Patellongi, MS Dr. dr. Idham Jaya Ganda, Sp.A (K) Research Supervisor
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the seventh semester.
Type of teaching, contact hours	Teaching methods used in this course are: - Lecture/tutorial - Structured assignment - Independent study Total contact hours is 186.67 hours (consist of lecture, structured assignment and independent study)
Workload	For this course, students are required to meet a minimum of 149.33 hours in one semester (80% from total hours)
Credit points	4 credit points (equivalent with 7.47 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and internship level, have passed phase 1, phase 2, and phase 3 competence certificate, have finished research proposal seminar.

Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO** Students are able to show academic attitudes and ethics in carrying out learning in the results seminar course Students are able to apply clinical epidemiology, research methodology and biostatistics within the scope of eye health sciences
Content	This course is a prerequisite for making a final project where students will apply clinical epidemiology, research methodology and biostatistics in making research results according to the Competency Standards for Indonesian ophthalmologists.
Forms of Assessment	Making a presentation proposal research of certain topic in ophthalmologist Script Writing Systematics Script Presentation Discussion skills and abilities Mastering presentation materials
Study and examination requirements and forms of examination	**Study and examination requirements:** Student must discussed and revised manuscript with advisor lecturers Student must delivered the manuscript to all lecturers **Form of examination:** Summative Script Writing Systematics Script Presentation Discussion skills and abilities Mastering presentation materials
Media employed	PowerPoint Presentation Manuscriopt LCD proyektor + pointer Laptop E-book
Reading list	**Main Reference:** DESIGNING CLINICAL RESEARCH, Stephen B. Hulley & Steven Cummings (2018) MEDICAL EPIDEMIOLOGY, Raymond S. Greenberg cs (2013) Fundamentals of Clinical Research Methodology Statistics for Medicine and Health **Supporting Reference:** DASAR-DASAR METODOLOGI PENELITIAN KLINIK Edisi 5, Sudigdo Sastroasmoro & Sofyan Ismael (2014)

APPENDIX MODULE 24 : NATIONAL EXAMINATION

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02540202
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VII (seventh)
Person responsible for the module	dr. Hasnah, Sp.M(K), M.Kes
Lecturer	1. dr. Hasnah, Sp.M(K), M.Kes 2. dr. Muhammad Irfan K, Sp.M, MARS 3. dr. Dyah Ayu Windy, Sp.M
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the 7th semester.
Type of teaching, contact hours	Teaching methods used in this course are: • Role modelling • Lecture • Clinical Tutorial • Bedside Teaching (BST) • Case Reflection • Video assisted learning The class size for teaching activities is approximately 1-2 students for BST and 3-5 students for other activities. Contact hours for clinical tutorial, BST, video assisted learning 93.33 hours.
Workload	For this course, students are required to meet a minimum of 74.64 hours in one semester (80% from total hours)
Credit points	2 credit points (equivalent with 3.73 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience in knowledge and skill competencies based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and internship level, have passed phase 1, phase 2, and phase 3 competence certificate, have finished research proposal seminar.
Module objectives/Course Learning Objective	After completing the course students are expected to be:

	1. Able to act out academic attitudes and ethics in conducting relationship within educational environment during national examination 2. Able to determine therapeutic clinical decision in common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during national examination 3. Able to implement the diagnostic skills in common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during national examination 4. Able to perform surgical skills to manage common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during national examination 5. Able to play a role in community ophthalmology activities including promotion, prevention and curative services, and work in multidisciplinary teams
Content	This course is aimed to evaluate student's competences in making clinical diagnose and carry out treatment for common eye diseases independently and comprehensively according to the Competency Standards for Indonesian Ophthalmologists.
Forms of Assessment	Summative 1. Written examination (MCQ): 45% 2. OSCE : 45% 3. Portfolio : 10%
Study and examination requirements and forms of examination	**Study and examination requirements:** • Students must attend 15 minutes before the exam starts. • Students must switch off all electronic devices. • Students must inform the lecturer if they will not attend the exam due to sickness, etc. • Students must attend the exam to get a final grade. **Form of examination:** Formative - Summative Cognitive: Multiple Choice Questions using Vignettes, portfolio: Interview, Self-reflection Skills: OSCE Competence: OSCE, MCQ
Media employed	Video
Reading list	1. Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology 2. Practical Ophthalmology, American Academy of Ophthalmology 3. Will's eye manual 4. Adler's Physiology of The Eye 5. AK Khurana - Comprehensive Ophthalmology 6. Kanski Clinical Ophthalmology 7. Practical Ophthalmology 8. Epidemiology of Eye Disease, 9. Fundamentals of Clinical Research Methodology 10. Textbook of Ophthalmology

APPENDIX MODULE 25 : INDEPENDENT ROTATION

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02540404
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VIII
Person responsible for the module	dr. M. Abrar Ismail, Sp.M(K), M.Kes
Lecturer	dr. Muh. Abrar Ismail,Sp.M(K),M.Kes dr. Hasnah,Sp.M(K),M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the 8th semester.
Type of teaching, contact hours	Contact hours for lecture and literature reading are 186.67 hours
Workload	For this course, students are required to meet a minimum of 149.33 hours in one semester (80% from total hours).
Credit points	4 credit points (equivalent with 7.47 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and internship level, have passed phase 1, phase 2, and phase 3 competence certificate, and have passed in the national examination
Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: 1. Able to act out academic attitudes and ethics in conducting relationship within educational environment during national examination 2. Able to compile ideas, thoughts and scientific arguments responsibly and based on academic ethics, as well as communicate through the media to the academic community and the wider community 3. Able to determine therapeutic clinical decision in common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during national examination 4. Able to implement the diagnostic skills in common eye diseases according to the Competency Standards for

	Indonesian Ophthalmologists during national examination 5. Able to perform surgical skills to manage common eye diseases according to the Competency Standards for Indonesian Ophthalmologists during national examination 6. Able to play a role in community ophthalmology activities including promotion, prevention and curative services, and work in multidisciplinary teams
Content	This course is an independent stage for students in a satellite hospital where students make clinical diagnoses and carry out eye disease management independently and comprehensively according to the Competency Standards for Indonesian Ophthalmologists
Forms of Assessment	Evaluation checklist from : 100%
Study and examination requirements and forms of examination	**Study and examination requirements:** • Students must attend 15 minutes before the class starts. • Students must switch off all electronic devices. • Students must inform the lecturer if they will not attend the class due to sickness, etc. • Students must submit all class assignments before the deadline. • Students must attend the exam to get a final grade. **Form of examination:** Evaluation checklist form
Media employed	-
Reading list	1. Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology 2. Wills eye manual 3. Adler's Physiology of The Eye 4. AK Khurana - Comprehensive Ophthalmology 5. Kanski Clinical Ophthalmology 6. Uveitis and Immunological Disorders 7. Practical Ophthalmology 8. Epidemiology of Eye Disease, 9. Fundamentals of Clinical Research Methodology 10. Textbook of Ophthalmology

APPENDIX MODULE 26 : RESEARCH PUBLICATION

Module name	Course Module
Module level, if applicable	Ophthalmologist
Code, if applicable	20C02540506
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	VIII
Person responsible for the module	dr. M. Abrar Ismail, Sp.M(K), M.Kes
Lecturer	1. Dr. dr. Arifin Seweng, MPH 2. Dr. dr. Burhanuddin Bahar, MS 3. Dr. dr. Ilhamjaya Patellongi, MS 4. Dr. dr. Idham Jaya Ganda, Sp.A(K) 5. Dr. dr. Habibah S. Muhiddin, Sp.M(K) 6. Prof.dr. Budu,Ph.D,Sp.M(K),M.MedEd 7. dr. Andi Muhammad Ichsan, Ph.D., Sp.M(K) 8. Dr.dr. Batari Todja Umar,Sp.M(K) 9. dr. Muh. Abrar Ismail,Sp.M(K),M.Kes 10. dr. Hasnah,Sp.M(K),M.Kes
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a main course and offered in the 8th semester.
Type of teaching, contact hours	Teaching methods used in this course are: • Discussion or consultation • Independent literature review • Manuscript writing Contact hours for Face to Face Discussion and Independent Study are 80 hours.
Workload	For this course, students are required to meet a minimum of 224 hours in one semester (80% from total hours)
Credit points	6 credit points (equivalent with 11.20 ECTS)
Requirements according to the examination regulations	Students must achieve a minimum of 75% experience based on ophthalmologist collegium requirements in the form of a portfolio including logbook and workplace-based assessment.
Recommended prerequisites	Students must have passed enrichment phase and internship level, have passed phase 1, phase 2, and phase 3 competence certificate, have finished research result seminar.

Module objectives/intended learning outcomes	After completing the course and given, students are expected to be: **CLO1:** Students are able to demonstrate academic attitudes and ethics in carrying out learning in the seminar results and publication courses **CLO2**: Students are able to conduct research by applying clinical epidemiology, clinical methodology and biostatistics **CLO3**: Students are able to publish research results
Content	This course aims to fulfil the competence as graduate ophthalmology students according to the Competency Standards for Indonesian Ophthalmologists and Indonesian National Qualification Network level 8.
Forms of Assessment	Observation on process of writing, submitting and publishing manuscript
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend consultation and discussion with advisor - Students are required to perform manuscript writing based on previous research - Students required to apply submission on reputable journal, Scopus or Coppernicus indexed - Student required to comply all requirement given by the journal they apply to. - Course are declared finished when the manuscript excepted, proven by letter of acceptance.
Media employed	- Comparation of related literature - Reputable Journals publisher
Reading list	Main References: Basic and Clinical Science Course (BCSC), American Academy of Ophthalmology Supporting References: 1. Dasar-Dasar Metodologi Penelitian 2. Statistik untuk Kedokteran dan Kesehatan