

# CURRICULUM BOOK

2021

Rector Decree Number : 2707 / UN11 / KPT / 2022

FACULTY OF MEDICINE  
UNIVERSITAS SYIAH KUALA

## Medical Doctor Program



## FOREWORD

The preparation of the curriculum book for the Medical Doctor (MD) program for the academic year of 2021-2024 is a follow-up to the mandate of the Law of the Republic of Indonesia Number 12 of 2012 concerning the Higher Education Curriculum, Indonesian Presidential Regulation Number 8 of 2012 concerning the Indonesian National Qualifications Framework (KKNI), Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 73 of 2013 concerning the application of Indonesian Framework of Qualification in the field of higher education, and the regulation of the Minister of Education and Culture of the Republic of Indonesia Number 3 of 2020 concerning National Standards for Higher Education. The preparation of this book has also been considering the development of the industrial revolution 4.0 and the new policy on “Merdeka Belajar-Kampus Merdeka” from the Ministry of Education, Culture, Research, and Technology.

This curriculum book is prepared to be a reference in the implementation of the Medical Doctor Program, Faculty of Medicine, Universitas Syiah Kuala. The preparation was a long process by following the stages set out in the Guidelines for Revising Curriculum published by the Directorate General of Learning and Student Affairs of the Directorate General of Higher Education of the Ministry of Education and Culture of the Republic of Indonesia. It also considered all the suggestions mentioned in the curriculum revision guide published by the ala University.

The design of this curriculum is certainly imbued with the mission and values of Universitas Syiah Kuala and is developed based on the community’s needs in accordance with the results of the evaluation of tracer studies and the development of fast-changing medical science. Therefore, I would like to express my gratitude and appreciation to the Curriculum Team, the author team, and all teachers for their hard work, thoughts, and ideas that have been contributed for the sake of compiling this book.

This curriculum will be reviewed periodically, to produce quality outputs (graduates) who are competent and capable of responding to global challenges and the needs of society.

Banda Aceh, May 2021

Dean of the Faculty of Medicine

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## TABLE OF CONTENTS

FOREWORD .....	i
AUTHOR TEAM.....	ii
TABLE OF CONTENTS.....	iii
CHAPTER 1 INTRODUCTION .....	1
CHAPTER 2 THE PROGRAM PROFILE .....	3
CHAPTER 3 ACADEMIC RULES .....	5
3.1. Semester Credit System .....	5
3.1. Semester Credit System and Study Load.....	5
3.2.1 Credit Score .....	5
3.2.2 Study Load .....	6
3.3. Learning Activity Format.....	7
3.4. The Matrix of ILO dan Learning Method .....	9
3.5. The Matrix of ILO and Evaluation Method .....	9
3.6. Evaluation and Assessment System .....	10
3.7. Study Deadline .....	10
3.8. Guidance Academic and Assistance.....	11
3.9. Students Grouping .....	12
3.10. Control of the Learning Process .....	13
CHAPTER 4 CURRICULUM.....	14
4.1. Graduate Profile .....	14
4.2. Curriculum Document Process .....	16
4.3. The Foundations of Curriculum Design and Development.....	16
4.4. Intended Learning Outcomes (ILO) .....	17
4.5. Formulation of Course Learning Outcomes (CLO) .....	18
4.6. Curriculum Composition .....	31
4.7. The distribution of courses in the four semesters.....	31
4.8. Course Descriptions .....	32
4.9. Matrix for Relationship Between Subject of Study and Competency Based Education .....	41

## **CHAPTER 1 INTRODUCTION**

The Faculty of Medicine of Syiah Kuala University (FoM USK) was established on April 1, 1982 to meet the needs of doctors in Indonesia, especially in Aceh Province. Currently, FoM USK has 18 Study Programs, two of which are the Bachelor of Medicine (BM) Program and the Medical Doctor Program (MD). In 2016 and 2022, BM and MD USK obtained an “excellent” accreditation from the Indonesian Health Higher Education Independent Accreditation Institute (LAM-PTKes). This achievement is the capital of FoM USK to continue to maintain and improve the quality of education.

The mission of FoM USK is to become a superior, competitive and innovative Faculty of Medicine at the national and international level a by 2025, inspiring the profile of its graduates who are expected to be able to play six (6) roles: medical doctors, educators, researchers, community activists, entrepreneurs, and disaster managers. This also provides direction for the development of institutions that are prioritized in superior fields, which are Disaster Management and Family Medicine. Guided by the above mission, a strategic plan of FoM USK was prepared, which also contains a development strategy for the MD FoM USK based on the vision, mission, goals, and strategic objectives as well as measurable achievement targets.

The curriculum at MD FoM USK has been carried out through a learning process that is student-oriented and strengthened by the integration of biomedical, behavioral, and clinical sciences in accordance with established standards. In 2019 the MD FoM USK curriculum has received equality recognition from the Thai Ministry of Health. The implementation of the management principles such as identification, implementation, evaluation, control, and improvement in accordance with Higher Education Standards on the curriculum, learning process and academic atmosphere has made a positive contribution in the form of increasing the Grade Point Average (GPA), timely graduation, and increasing student achievement.

The preparation of this curriculum book for MD FoM USK was carried out by a team appointed by the Dean based on the Decree of the Rector of Syiah Kuala University Number 2707 / UN11 / KPT / 2022. Based on the results of the previous curriculum evaluation involving external stakeholder components and graduate users (the Public Health Office, hospitals and alumni representatives), faculty leaders (Dean / Head of Program), teaching staff, and students, it is necessary to strengthen the competence of several fields such as clinical nutrition dan medical

rehabilitation, as well as adjust the duration of the program to promote timely graduation within 4 semesters.

The preparation of this MD curriculum book refers to the mandate of the Law of the Republic of Indonesia Number 12 of 2012 concerning the Higher Education Curriculum, the Minister of Education and Culture of the Republic of Indonesia Number 73 of 2013 concerning the implementation of Indonesian framework of competence in higher education established by Ministry of Education and Culture of the Republic of Indonesia in the regulation number 3 of 2020 concerning, the national standards for Indonesian medical doctors of 2019, and WFME Global Standards for Quality Improvement of 2012. The curriculum design of the 2021-2024 MD program of 1.5 years with compulsory courses and now there are elective courses as many as 4 courses.

## **CHAPTER 2 THE PROGRAM PROFILE**

### **2.1. The program's mission**

The MD FoM aims "to produce medical doctors who are competitive, innovative and have excellences in the fields of disaster management and family medicine at the national and international level by 2025".

### **2.2 Profile of Student Services (Associations, SMEs, dormitory facilities, sports, arts)**

MD FoM USK provides access and services for students for the development of student talents and interests (extracurricular), soft skills coaching, scholarships and health services. The presence of student clubs may function as a forum for developing interests and talents, as well as increasing the capacity building of students academically and non-academically, which is indicated by an increase in student achievement.

Services aimed at improving student welfare, one of which is carried out with scholarship services, and health. Scholarship information services provided by the university can be accessed by students through the <http://kemahasiswaan.unsyiah.ac.id/> page.

Students receive quality health services from Prince Nayev-USK Hospital, including emergency installation services, outpatient (general practitioner clinic, specialist services, dental and oral clinic), inpatient, laboratory examination, and pharmacy. This hospital is also one of the places of professional stage education.

Guidance and counseling services have also been put to good use by students, both on their own initiative and because of requests/recommendations from FoM USK. Counseling guidance services for students are centered on the integrated counseling and psychology service unit (UPKPT) managed by the Psychology Study Program of FoM USK, and UPT counseling at the university level (<http://uptkonseling.unsyiah.ac.id/>). In addition, scholarship support is also sought for underprivileged but outstanding students in the academic field. Scholarship sources come from: Academic Achievement Improvement Scholarship (PPA), Bidikmisi Scholarship, BRI Smart Indonesia Scholarship, DKU Scholarship, Osaka Gas Scholarship, Thesis Writing Assistance (BUMIDA), Shalih Charity Scholarship, PT Thesis Writing Assistance. Pelindo II, Karya Salemba Empat Scholarship (KSE), and Beswan Djarum Plus Scholarship.

Dormitory services (<http://asrama.unsyiah.ac.id/>) are accessed mainly by bidikmisi scholarship recipient students and foreign students. Bidikmisi scholarship recipients also get an increase in capacity building during the first two semesters in the dormitory.

Student services in the field of career counseling and entrepreneurial guidance, have been conducted through the Career Development Centers (CDC) <https://cdc.unsyiah.ac.id/>. This institution provides information to students and fresh graduates about job opportunities as well as seminars and training aimed at helping career development and improving the quality of human resources, especially USK alumni. The MD Study Program of FoM USK through the alumni subdivision also conducts an alumni tracer study whose data is updated and can be accessed on [the http://FoM.unsyiah.ac.id/prodi/pendidikan-dokter](http://FoM.unsyiah.ac.id/prodi/pendidikan-dokter) study program page.



## **CHAPTER 3 ACADEMIC RULES**

### **3.1. Semester Credit System**

Semester Credit System of Satuan Kredit Semester (SKS) is an education delivery system using credits to express student study load, lecturer workload, learning experience, and program implementation load. The operational definition of each term is described below:

- Semester

Semester is a unit of activity time consisting of 10 to 12 credits consisting of general compulsory courses (organized by the University) and elective courses. In MD program, these activities include bed site teaching, clinical skills guidance, case reflection guidance, clinical tutorials, patient management guidance (outpatient clinics, wards, operating rooms), field activities and journal review guidance.

- Bed Side Teaching (1 credit = 100 minutes x16 meetings)
- Expert Lectures / clinical skills guidance, clinical tutorials, patient management guidance (polyclinics, wards, operating rooms) / field activities. (1 credit = 50 minutes x 16 meetings)
- Seminars and reports / case reflection guidance / journal article appraisals / scientific papers (1 credit = 100 minutes x 16 meetings)
- Self-study.

### **3.2. Semester Credit System and Study Load**

#### **3.2.1 Credit Score**

Education at MD FoM USK is taken for 4 semesters, with a study load of 43 credits divided into 41 credits of compulsory courses and 2 credits of elective courses. The learning methods at MD clinical rotation at departments consist of bed side teaching, clinical skills guidance, case reflection guidance, clinical tutorials, patient management guidance (outpatient/in-patient wards, operating theaters), field activities and journal article appraisals that may differ across departments. At the last clinical rotation in the second year, the student undergo a course of comprehensive rotation. This course summarizes all clinical clerkship activities that have been carried out by the students. The course is designed in the form of emergency room care as preparation for becoming a doctor who is ready to carry out tasks in the context. The course also includes CBT and OSCE guidance in preparation for undergoing the National Board Competency Examination (NCBE).

For lectures, the value of 1 (one) credit is determined based on the activity load for 1 semester of activities that have been programmed in each department.

#### **For students**

1 (one) credit in the form of lecture learning, response and tutorial, including:

- Face-to-face learning activities of 50 (fifty) minutes per week per semester;
- Learning activities with structured assignments of 60 (sixty) minutes per week per semester; and
- Self-study activities are 60 (sixty) minutes per week per semester.

#### **For lecturers**

- 50 (fifty) minutes of face-to-face events with student on a scheduled basis.
- 60 (sixty) minutes of event planning and evaluation of structured academic activities.
- 60 (sixty) minutes of course material development.

Credit scores for seminars or other similar forms of learning weigh 1 (one) credit on the form of seminar learning or other similar forms of learning, including:

- Face-to-face learning activities of 100 (one hundred) minutes per week per semester;
- Self-study activities of 70 (seventy) minutes per week per semester.

The weight of 1 (one) credit in the form of practicum learning / patient management (polyclinics, wards and operating rooms), field practice, research, community service, and / or other equivalent forms of learning is 170 (one hundred and seventy) minutes per week per semester. In the medical doctor study program, the calculated hour load is different from the general one. To attain competency standards, 1 credit means that student activities are carried out for 200 minutes or 53 hours (6 working days in 1 week)

### **3.2.2 Study Load**

The activities of the medical doctor are carried out for 2 stages. Stage 1 is for semesters 1 and 2, and stage 2 is for semesters 3 and 4. The study load for each semester for all students is the same. Every student since the first semester is required to follow all the courses that have been set for that semester. There are 41 credits of compulsory courses that must be taken by student and at least 2 credits of elective courses (~92 ECTS in 1.5 years).

### 3.3. Learning Activity Format

1. Bed side teaching (BST)

Learning with patient participation with guidance from lecturers in accordance with the CLO of each course

2. Expert lectures/clinical tutorials,

Conducted by experts with teaching materials according to the achievement of course competencies (CLO) in each course

3. Seminars/scientific papers/case reports/morning reports

Scheduled group discussion facilitated by lecturers, for several 5 times a week (schedule depends on department).

4. Patient management guidance (polyclinics, wards, operating rooms) / field activities.

Activities carried out in health service facilities (primary and secondary) as well as in the community to strengthen students' understanding of the application of theories that have been learned during expert lectures, clinical tutorials and BST.

During his time with the registrar of the clinic, student practiced to master the skills of the clinic. Clinical skills are mental and or physical activities that are organized and have parts of the activity that are interdependent from beginning to end. In carrying out the practice of doctors, doctor graduates need to master clinical skills that will be used in diagnosing and solving a health problem.

With these various forms of active learning, student is expected to get an idea of the practice of medicine at the local, regional, and global levels.

5. Self-study

Self-study activities are carried out on a scheduled basis.

6. Mini-Clinical Evaluation Exercise (Mini-CEX) is an assessment method based on the results of direct lecturers' observations of student performance when they interact with patients in a real clinical setting. Student demonstrates clinical keterampilan such as anamnesis, clinical examination relevant to patient complaints, establishing diagnosis, making patient management plans, in the presence of several observers. The time required for assessment with this method is relatively short, namely observation when interacting with patients is about 15 minutes, followed by giving feedback of about 5-10 minutes. The content assessed is 7 items, including: keterampilan anamnesis, physical examination, profesionalisme, clinical reasoning in establishing a clinical diagnosis, counseling / patient education, timing, and overall competence. The assessment scale uses a Likert scale of 1 –

9, with 1 – 3 far below the expected competency, 4 – 5 close to the expected competency, 6-7 as per the expected competency, 8 – 9 exceeding the competency. Assessment using this method can be carried out in polyclinics, wards, and ER.

7. Direct Observation of Procedural Skills (DOPS) aims to assess the procedural skill performed by students based on direct observation by the clinic's preceptors in a real setting (a place where the procedure is possible with real patients). The time required to conduct an assessment with this method is 15 minutes for observation and 5 minutes for giving feedback. Assessment scale; 1 – 3: far below the expected level of competence 4 – 5: close to the expected level of competence 8– 7: competence as expected 8 – 9: competence exceeds expected. The DOPS assessment form can be seen attached.
8. Case-Based Discussion (CBD) is a method of assessment based on case discussion and not based on direct observation. A student selects two existing patient cases and makes a report of the case to be submitted to the supervisor/clinical examiner, then the supervisor/examiner selects one case to discuss and explores more in one or more aspects of the case. These aspects are clinical examinations, supporting and referral examinations, therapy, follow-up, management plans and professionalism. The purpose of this method is to assess clinical reasoning skills. Time required: 20 minutes (including feedback). The CBD assessment form can be seen attached.
9. Objective Structural Clinical Examination (OSCE) is an assessment method for assessing the competence skills of clinics using several stations. Each examinee (student) will go through all the same stations by moving from one station to the next according to the predetermined time. Clinical competencies that can be tested through the OSCE include: anamnesis and physical, skill in determining clinical procedures, interpretation of supporting examination results, patient education and counseling, ect
10. Morning Report is an activity carried out in the form of a report of a new incoming patient, made in the form of a log book of every student in charge of guarding at that time. After that, a brief presentation of anamnesis, physical examination, and subsequent management in front of the lecturer was scheduled in the morning from 07.00 to 08.00 AM. Students are guided by teachers on duty at the teaching hospital, residents (in the resident as teacher program), and other medical personnel.
11. CBT/PBT (computer/paper-based test) is a form of a written test aimed at assessing the skill of clinical reasoning. The recommended question types are MCQ (multiple choice)

with case scenarios, MEQ (Modified Essay Questions), and PMPs (Patient Management Problems).

### 3.4. The Matrix of ILO dan Learning Method

<b>Attitude</b>	Bed site teaching, expert lectures, seminars and reports	Bed site teaching, expert lectures, seminars and reports	Bed site teaching, expert lectures, seminars and reports	Bed site teaching, expert lectures, seminars and reports
<b>Knowledge</b>	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study
<b>Skill</b>	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study
<b>Competence</b>	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study	Bed site teaching, expert lectures, seminars and reports, self study

### 3.5. The Matrix of ILO and Evaluation Method

<b>Attitude</b>	Behavioral value, observation, oral presentation	Behavioral value, observation, oral presentation	Behavioral value, observation, oral presentation	Behavioral value, observation, oral presentation
<b>Knowledge</b>	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report
<b>Skill</b>	Mini-Cex, DOPS, CBD, OSCE	Mini-Cex, DOPS, CBD, OSCE	Mini-Cex, DOPS, CBD, OSCE	Mini-Cex, DOPS, CBD, OSCE
<b>Competence</b>	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Report	Pretest (CBT/PBT), Mini-Cex, DOPS, CBD, OSCE, Case Report, Morning Repo

### 3.6. Evaluation and Assessment System

Evaluations/examinations in departments consist of pre-tests, patient management exams and post-tests. The pre-test exam is in the form of a written exam which is carried out before

entering the clinical clerkship activities in the department in the first week. Patient management exams can be Mini-CEX, DOPS, CBD, or other methods. There is also a post-test, i.e. the final exam of the department, conducted in the final week. This can be in a combination of CBT and OSCE. Students are allowed to take the final examination of the department if they have met the process assessment (formative assessment and awarding and the percentage of attendance determined by the department) by submitting a diary (log book) to the education coordinator of their respective department.

**MD assessment methode:**

No	Assessment Methode	Weight (%)
1.	Pretest	5
2.	Mini-CEX	5
3.	DOPS	5
4.	CBD	5
5.	OSCE	45
6.	CBT/PBT	25
7.	Behavioral Value	10

Behavioral values include timely attendance, number of attendance, liveliness, responsibility and ways of interaction with the environment. The assessment method is adjusted to the respective department.

**3.7. Study Deadline**

Education at the MD FoM USK must be completed within 4 semesters (1.5 years/92 ECTS), starting from being registered for the first time at the MD FoM USK until it is declared ready to face the final exam. However, the maximum opportunity is given a maximum of 8 semesters, if it exceeds this time, then to be able to continue education, it must get the approval of the FoM senate and the permission of the Rector of USK.

The graduation provisions of each mor departmental lecture if they have been declared graduated with the result of the final accumulation of at least 60. The assessment guidelines on the FoM USK MD refer to the USK Academic Guidelines based on the Benchmark Reference Guidelines.

**Table 4. Guidelines for Assessment of MD Programs**

No	Grade and Scores
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1.	$A \geq 87$
2.	$78 \leq AB < 87$
3.	$\leq 69B < 78$
4.	$60 \leq BC < 69$
5.	$51 \leq C < 60$
6.	$41 \leq D < 51$
7.	$E < 41$

1. The lowest final value that should not be corrected is the BC value.
2. Students who fail with a grade of D or repeat a grade of C in a clinical rotation, must follow half of the total rotation time that does not pass; and students who fail with an E grade or get sanctioned in a rotation, must follow the entire total time of the rotation in question.
3. Bagian/department can arrange additional exams to ensure the achievement of competencies in accordance with the material concerned.
4. Students who do not pass the third exam in a department are subjected to special guidance appointed by the department and the examination is conducted by the commission examination team appointed by the Dean of the Faculty of Medicine of USK.
5. Every student who failed in a rotation in the department should participate in a remedial test, which is carried out after all stages have been followed, or at a time regulated by the MD Program.

### 3.8. Guidance Academic and Assistance

Each student has an academic advisors who is appointed according to the USK Rector's Decree. Here are some things related to academic advisors:

1. Behave, behave and act as a supervisor for the student concerned, especially for the smooth implementation of the student's academic activities
2. Accompanying, guiding, and providing counseling for students under his guidance, which has something to do with the academic progress of the student
3. Guiding the preparation of study plans/changes to student study plans and then certifying study plans
4. Certifying the student Study Result Card

5. Refer the problems experienced by students to the party who can help solve the problem. The parties may be teachers, educational staff, or officers at the Guidance and Counseling Center USK, psychiatrists, psychologists, medical doctors, family members and other students.
6. To be able to carry out these functions, academic supervisors are expected to be able to collect and analyze the background situation of students, regarding both academic achievement and personal ones.
7. The guidance is valid until the completion of the clerkship's activities.
8. If the advisors are unavailable, the Vice Dean for Academic Affairs of the Faculty of Medicine of USK may act as a substitute of academic advisors.

Academic guidance that takes place during the student study period, there is an academic guidance communication book. The book aims to:

1. Communication media between student and guardian lecturers.
2. To monitor the development of the student agreement by the guardian lecturer
3. To early detect academic problems or other non-academic problems that affect the results of student studies by guardian lecturers
4. To be able to provide a solution to academic problems faced by students

In one semester, the minimum number of academic guidance activities is 3 mandatory meetings, between the student and his academic supervisor. The first meeting is during the filling of the KRS, the second meeting is at midterm to report on the courses that have been passed, and the third meeting is at the end of the semester to report the results of the semester's course exams and the remedial schedule.

In the department that has a specialist program, residents (students in the specialist program) can also guide and accompany student activities in accordance with their capacity and competence under the supervision of permanent lecturers.

### **3.9. Students Grouping**

Students grouping are regulated and archived by MD FoM USK. The student are divided into groups of 11-15 people per group. Each group has been arranged for rotation by the MD so that it will enter all stages during the medical professional education activities. Each student must have received a final grade by the end of each department, not allowed to increase the period beyond the provisions set by this book.



The final score of each department is handed over to the Head of the MD Program with a copy of the Vice Dean of Academic Affairs no later than 1 – 2 weeks after the student completes the rotation and undergoes an exam in that department. After the students complete all clinical rotations and grades are declared passed in all departments, the Head of the Program will send the accumulated grades of each course along with students to the FoM to subsequently follow the national board examination.

### **3.10. Control of the Learning Process**

- a. Evaluation of the success of students is carried out at the end of the education stage at MD FoM USK. The student are declared to have finished undergoing education at MD FoM USK if he has passed all courses in all parts of compulsory courses and at least 2 credits of elective courses with a minimum C grade of 1, there must be no D or E grades and a GPA of  $\geq 3$ . Furthermore, student will take the try out of the internal Computer-based Test (CBT) as a condition for taking the National Competency Board Examination.
- b. National Competency Board Examination (NCBE)

NCBE is a national testing and assessment for MD FoM USK students, which aims to:

- Ensuring competent and nationally standardized graduates;
- Assess attitudes, knowledge, and skills as a basis for conducting the practice of medicine;
- Providing feedback on the educational process at the medical faculty;
- Monitoring the quality of education in MD FoM USK in the context of policy making by the government.

This exam is organized by the National Committee of NCBE. Medical Professional Education based on the Decree of the Minister of Research, Technology and Higher Education. It is held 4 times in 1 year, which are February, May, August and November. NCBE participants are MD FoM USK students who have completed the entire learning process. Foreign students who attend education at the FoM USK MD are not required to take the NCBE. Students are able to take part in NCBE if they have been registered with the Higher Education Database (PD Dikti). The student data that has been completed and passed all stages of rotation in the MD will be sent to the Dean of the FoM USK for NCBE registration.

## **CHAPTER 4 CURRICULUM**

### **4.1. Graduate Profiles**

There are 6 graduate profiles of MD FoM USK:

### **1. Medical Doctor**

The MD FoM USK graduates should master biomedical and clinical medical science and master basic and clinical skills, able to provide medical services to patients in hospitals and community healthcare centers. The MD graduate is able to apply interprofessional learning and apply the principles of communication, cultural competence, and professional ethics in providing medical services to patients according to their competencies.

### **2. Researcher**

The MD FoM USK graduates are able to recognize problems in the field of medicine and health and conduct and develop research in the field of medicine and health in a systematic and correct manner using the principles of scientific research methodologies, so as to solve health problems in the community.

### **3. Community activist**

The MD FoM USK graduates should master interpersonal communication skills and the ability to empathize so that they can become activists who contribute positively to building health literacy in the community.

### **4. Academic Educator**

The MD FoM USK graduates should master the basics of health professional education so that they can participate in improving the quality of human resources in the health sector.

### **5. Entrepreneurs**

The MD FoM USK graduates should master the principles of entrepreneurship so that they are able to develop financial independence and create employment opportunities in the field of health services.

### **6. Disaster manager**

The MD FoM USK graduates are able to become an important element in supporting disaster management along with other professions.

## **4.2. Curriculum Document Process**

In general, it is known that the stages of preparing curriculum documents are divided into three steps, namely 1). Curriculum design, 2). Learning planning and 3). Evaluation of learning programs. Medical Doctor Study Program routinely conducts surveys every year on students, lecturers and graduate users in the form of questionnaires and FGD (Focus Group

Discussion) by the Study Program's Academic Quality Assurance Team (TPMA) which is then reported to the Faculty Quality Assurance Unit (SJMF) and audited periodically by the University Quality Assurance Institute. The survey results are analyzed to be used as a basis for determining graduate profiles and studies of the USK Medical Faculty Professional Education Study Program in accordance with the 2019 SNPDI standard specifications (National Standard of Doctor Competence). The results of the study program analysis and specifications will then determine Intended of Learning Outcomes (ILO), courses, Semester Credit Unit weights and the organizational structure of courses in matrix form. In simple terms, the stages of preparing a curriculum document are:

1. determining graduate profiles;
2. formulation of Intended of learning outcomes (ILO);
3. determining study materials;
4. formulation of course learning outcomes (CLO) and formation of courses;
5. preparation of course organization matrices; ILO assessment

#### **4.3. The Foundations of Curriculum Design and Development**

Legal basis for regulations and legislation related to curriculum design and development.

1. Regulation of the Minister of Education, Culture, Research and Technology Number 53 of 2023 concerning Quality Assurance in Higher Education
2. Regulation of the Minister of Education and Culture Number 3 of 2020 concerning national standards for higher education and partly copied from the guide for preparing the Higher Education curriculum in the era of the industrial revolution 4.0 published by the Directorate General of Learning and Student Affairs, Kemdikbudristekdikti in 2020
3. Guide to Preparing the Curriculum for Syiah Kuala University in 2023
4. National Standards for Indonesian Medical Professional Education 2019 (SNPPDI 2019)
5. Indonesian Medical Council Regulation Number 12 of 2013 (Student credit load is 36-50 credits or equivalent to 76-105 ECTS)

#### **4.4. Intended Learning Outcomes (ILO)**

The ILOs of the MD program are prepared with reference to the Indonesian National Qualifications framework and the 2019 National Standards for Professional Medical Education, which are divided into 4 main components:

- 1). Attitude component (A),
- 2). Knowledge Component (K),
- 3). Skills Component (S),
- 4). Competence Component (C).

**Intended of learning outcomes (ILO) of Medical Doctor FoM :**

**ILO 1** : Fear of God Almighty, demonstrate honesty and religious attitudes, uphold human values in carrying out duties based on morals, views, the opinions or original findings of others, and internalize academic values, norms, and ethics (A1)

**ILO 2** : Contribute to improving the quality of life in society, nation, state, and the progress of civilization based on Pancasila (the foundational philosophical theory of Indonesia), play a role as a proud citizen, demonstrate nationalism, and a sense of responsibility to the country and nation, as well as obey the law and discipline in social and state life (A2)

**ILO 3** : Collaborate and have social sensitivity and concern for society and the environment and a broad view, open, positive thinking, and socio-cultural insights (A3)

**ILO 4** : Demonstrates an attitude of being responsible for work in his field of expertise independently, practicing lifelong learning, developing knowledge, and behaving professionally with an optimistic, high curiosity, willingness to learn, and introspective attitude (A4)

**ILO 5** : Mastering the **biomedical, clinical, preventive medicine, social and humanities, disaster management, and entrepreneurship** principles to manage health problems at the individual, family, community, and community levels, holistically and comprehensively (K1)

**ILO 6** : Conduct and develop research in the field of medicine, health, and **medical education** by using the principles of **research methodology** to solve health problems in society and able to publish it in the scientific community (K2)

**ILO 7** : Be able to apply logical, critical, systematic, and innovative **thinking**, carry out the process of self-evaluation of the work group under their responsibility and manage the implementation of science and technology that pays attention to and applies humanities values according to their field of expertise (S1)

**ILO 8** : Be able to **communicate** with patients and families, work independently and collaborate with multidisciplinary partners, communities, and stakeholders based on ethics, and then make **decisions** appropriately and accurately in the context of solving problems in their area of expertise, based on the results of information and data analysis (S2)

**ILO 9** : Be able to document, store, secure, and retrieve data to ensure validity and prevent plagiarism, study the implications of the development to prepare a **thesis and project report**, and upload it on the university's website (S3)

**ILO 10** : Be able to apply the principles of **health profession education, disaster management, and entrepreneurship** in the field of medicine and health (S4)

**ILO 11** : Be able to explore and exchange information **verbally and non-verbally** with patients of all ages, family members, communities, colleagues, and other professions (C1)

**ILO 12** : Be able to utilize **information communication technology** and health information in medical practice (C2)

**ILO 13** : Be able to carry out **clinical procedures** related to health problems by applying patient safety principles, the safety of oneself, and others (C3)

**ILO 14** : Be able to manage individual, family, and community **health problems** in a comprehensive, holistic, integrated, and sustainable manner in the context of primary health care (C4)

#### **4.5. Formulation of Course Learning Outcomes (CLO)**

ILO charged to courses will be reduced to course learning outcomes (CLO). CLO is further reduced to several sub-course learning outcomes (Sub-CLO) or often called lesson learning outcomes (Bin, 2015; AUN-QA, 2015). Sub-CLO is the final capability planned at each learning stage to fulfill the ILO. CLO and sub-CLO are observable, can be measured and assessed, are more specific to the course, and can be demonstrated by students at each stage of learning and cumulatively illustrate the achievement of the ILO imposed on the course (AUN-QA, 2015, pp. 16 -17). The translation of ILO imposed on courses into CLO, then translated back into sub-CLO must be in harmony (constructive alignment). The Sub-CLO that has been formulated will then be used as a basis for determining indicators, criteria, and creating assessment instruments, choosing learning forms and methods, and developing learning materials. These items are then arranged in a semester learning plan/course of module for related courses.

#### **Course learning outcomes for Medical Doctor FoM :**

<b>No</b>	<b>Subject</b>	<b>SKS/ECTS</b>	<b>Course learning outcomes (CLO)</b>
1.	Internal Medicine	4 SKS/7 ECTS	CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of

			<p>patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019 in the field of Internal Medicine, Pulmonary and Cardiology by applying ethics and professionalism (C5, S5)</p> <p>CLO 2: Able to plan patient follow-up from a promotive and rehabilitative perspective in the fields of Internal Medicine (C5)</p> <p>CLO 3: Able to analyze and interpret a case in the fields of Internal Medicine by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractors/research (C4,C6)</p> <p>CLO 4: Able to apply the principles of Internal Medicine, Pulmonary and Cardiology to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
2.	Neurology Medicine	2 SKS/4 ECTS	<p>CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of Neurology Medicine by applying ethics and professionalism (C5, S5)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Neurology medicine by paying attention to the application of humanities values based on scientific principles,</p>

			<p>procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and principles of Neurology Medicine to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
3.	Psychiatry	2 SKS/4 ECTS	<p>CLO 1 : Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of Psychiatry by applying ethics and professionalism (C5, S5)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Psychiatry by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and principles of Psychiatry to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
4.	Clinical Nutrition	1 SKS/2 ECTS	<p>CLO 1: : Able to analyze and interpret a case in the field of Clinical Nutrition by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p>



			<p>CLO 2 : Able to apply the principles and rules of Clinical Nutrition to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p> <p>CLO 3: Able to plan patient follow-up from a promotive and rehabilitative perspective in the field of Clinical Nutrition (C5)</p>
5.	Physical Medicine and Rehabilitation	1 SKS/2 ECTS	<p>CLO 1: Able to carry out basic physical examinations and rehabilitation (C3)</p> <p>CLO 2: Able to manage patients with basic medical rehabilitation programs (S5)</p> <p>CLO 3: Able to apply the principles and methods of Physical Medicine-Rehabilitation and its management into disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C4,S5)</p>
6.	Pediatric Medicine	4 SKS/7 ECTS	<p>CLO 1: Able to generate a diagnosis related to Pediatric Medicine (C5)</p> <p>CLO 2 : Able to manage patients with with certain diseases (according to SNPPDI 2019) in the field Pediatric Medicine by applying ethics and professionalism (S5)</p> <p>CLO 3: Able to plan patient follow-up from a promotive and rehabilitative perspective in the field of Pediatric Medicine (C5)</p> <p>CLO 4: Able to analyze and interpret a case in the field Pediatric Medicine by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refrctions/research (C4,C6)</p>

			CLO 5: Able to apply the principles and rules of Pediatric Medicine to disaster management and entrepreneurship (C3)
7.	Dermato Venereology Medicine	2 SKS/4 ECTS	<p>CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of Dermato Venereology Medicine by applying ethics and professionalism (C5, S5)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Dermato Venereology Medicine by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refrctions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and rules of Dermato Venereology Medicine to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
8.	Radiology and Supportive Medicine	3 SKS/5 ECTS	<p>CLO 1: Able to perform and interpret basic investigations of Radiology, Clinical Microbiology, Pathology Anatomy, and Clinical Pathology according to the National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) (C5,S5)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Radiology, Clinical</p>

			<p>Microbiology, Pathology Anatomy, and Clinical Pathology by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and rules of Radiology, Clinical Microbiology, Pathology Anatomy, and Clinical Pathology to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
9.	Elective 1 : Pulmonology Emergency	1 SKS/2 ECTS	<p>CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of Pulmonology Emergency by applying ethics and professionalism (C5, S5)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Pulmonology Emergency by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and rules of Pulmonology Emergency Medicine to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>

10.	Elective 1 : Addiction Rehabilitation	1 SKS/2 ECTS	<p>CLO 1: Able to communicate with patients and their families, based on ethics, and then make decisions appropriately and accurately in the context of problem solving in addictive rehabilitation (S4)</p> <p>CLO 2: Able to analyze and interpret a case in the field of addictive rehabilitation by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractors/research (C4,C6)</p> <p>CLO 3: Able to plan patient follow-up from a promotive and rehabilitative perspective in the field of addictive rehabilitation (C5)</p>
11.	Surgery	4 SKS/7 ECTS	<p>CLO 1: Able to generate a diagnosis related to Surgery (C5)</p> <p>CLO 2 : Able to manage patients with with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field surgery by applying ethics and professionalism (S5)</p> <p>CLO 3: Able to plan patient follow-up from a promotive and rehabilitative perspective in the field of Surgery (C5)</p> <p>CLO 4: Able to analyze and interpret a case in the field Surgery by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in</p>

			the form of case reports/refractions/research (C4,C6)
			CLO 5: Able to apply the principles and rules of Surgery to disaster management and entrepreneurship (C3)
12.	Ear, Nose, Throat (ENT)	2 SKS/4 ECTS	CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of ENT by applying ethics and professionalism (C5, S5)
			CLO 2: Able to analyze and interpret a case in the field of ENT by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)
			CLO 3: Able to apply the principles and rules of ENT to disaster management and entrepreneurship ( <i>sociomedicopreneur</i> ) (C3)
13.	Ophthalmology	2 SKS/4 ECTS	CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of Ophthalmology by applying ethics and professionalism (C5, S5)

			<p>CLO 2: Able to analyze and interpret a case in the field of Ophthalmology by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and rules of Ophthalmology to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
14.	Forensic Medicine and Medicolegal	1 SKS/2 ECTS	<p>CLO 1: Able to carry out examinations, diagnosis and therapy in field of Forensic Medicine and Medicolegal (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) (C3)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Forensic Medicine and Medicolegal by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4, C6)</p> <p>Able to apply the principles of effective communication with patients/families by applying ethics and professionalism (C3)</p>
15.	Anesthesiology and Intensive care	1 SKS/2 ECTS	<p>CLO 1: Able to carry out examination, diagnosis and treatment of emergency patients so that they can provide life support, patient stabilization, patient transportation according to existing facilities, pre and post</p>

			<p>surgery and acute-chronic pain based on the National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019),</p> <p>CLO 2: Able to analyze and interpret a case in the field of Anesthesiology and Intensive care by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to apply the principles and rules of Anesthesiology and Intensive care to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
16.	Elective 2 : Emergency Cardiology	1 SKS/ 2 ECTS	<p>CLO 1: Able to carry out anamnesis-clinical examinations, propose investigations, make a diagnosis and plan the management of patients with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field of Emergency Cardiology by applying ethics and professionalism (C5, S5)</p> <p>CLO 2: Able to analyze and interpret a case in the field of Emergency Cardiology by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p>

			CLO 3: Able to apply the principles and rules of Emergency Cardiology to disaster management and entrepreneurship ( <i>sociomedicopreneur</i> ) (C3)
17.	Elective 2 : Leadership and Organization	1 SKS/ 2 ECTS	<p>CLO 1: Able to plan and collaborate in improving the quality of public health starting from problem analysis up to making changes to the level of public health through the development of primary health organizations both with internal and external parties (C5).</p> <p>CLO 2: Able to apply the principles and principles of Leadership and Health Organization Development Sciences in disaster management and entrepreneurship (C3)</p> <p>CLO 3: Able to apply the principles and rules of Leadership and Health Organization Development Sciences to disaster management and entrepreneurship (<i>sociomedicopreneur</i>) (C3)</p>
18.	Obstetric and Gynecology	4 SKS/7 ECTS	<p>CLO 1: Able to generate a diagnosis related to Obstetrics and Gynaecology problems (C5)</p> <p>CLO 2 : Able to manage patients with with certain diseases (according to National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) in the field Obstetrics and Gynaecology by applying ethics and professionalism (S5)</p> <p>CLO 3: Able to plan patient follow-up from a promotive and rehabilitative perspective in the field of Obstetrics and Gynaecology (C5)</p> <p>CLO 4: Able to analyze and interpret a case in the field Obstetrics and Gynaecology by</p>



			<p>paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 5: Able to apply the principles and principles of Obstetrics and Gynaecology to disaster management and entrepreneurship (C3)</p>
19.	Public Health and Community	2 SKS/4 ECTS	<p>CLO 1: Able to manage medical and health problem intervention programs at the individual, family and community levels in a comprehensive and holistic manner through the ability to provide Medical Public Health services at the Basic Level (S5)</p> <p>CLO 2: Able to apply the principles of effective communication by applying ethics and professionalism (C3)</p> <p>CLO 4: Able to analyze and interpret a case in the field Public Health and Community Medicine by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)</p> <p>CLO 3: Able to plan patient follow-up from a promotive and rehabilitative perspective in the field of Public Health and Community Medicine (C5)</p>
20.	Family Medicine	2 KSK/4 ECTS	<p>CLO 1: Able to identify, prepare management proposals and manage biomedical family</p>

			health problems holistically and comprehensively (S5)
			CLO 2: Able to analyze and interpret a case in the field Family Medicine by paying attention to the application of humanities values based on scientific principles, procedures and ethics so as to produce solutions, ideas, study results in the form of case reports/refractions/research (C4,C6)
			CLO 3: Able to apply the principles and rules of Family Medicine related to entrepreneurship ( <i>sociomedicoprenuer</i> ) (C3)
21.	Comprehensive and Clinical Skill	4 SKS/7 ECTS	CLO 1: Able to be a doctor who can identify problems/cases, check according to existing facilities, diagnose, plan management and provide comprehensive referrals both in the ER, Polyclinic and Ward according to the National Competency Standards for Indonesian Medical Professional Education (SNPPDI 2019) (S5)
			CLO 2: Able to analyze cases comprehensively, holistically, precisely and accurately on the National Competency Test for Medical doctoral Program (UKMPPD)

#### 4.6. Curriculum Composition

The details of the FOM USK MD curriculum are prepared based on the Higher Education Curriculum (KPT) are:

Table 4.5. Elements of competence of the MD Curriculum

	Competence	Credit points	ECTS
1	Clinical and behavioural sciences	38	82

2	Preventive and promotive medicine	4	8
3	Leadership dan management	1	2
<b>Total credits</b>		<b>43</b>	<b>92</b>

#### 4.7. The distribution of courses in the four semesters

**CURRICULUM 2021-2024  
MEDICAL DOCTOR PROGRAM  
FACULTY OF MEDICINE UNIVERSITAS SYIAH KUALA**

#### 1<sup>st</sup> Year:

##### SEMESTER I

No	Codes	Course Name	Credit Point (practice-FW)	ECTS	Course Category
1	DOK101	Internal Medicine	4 (3-1)	9	Compulsory
2	DOK103	Neurology	2 (1-1)	4	Compulsory
3	DOK105	Psychiatry	2 (1-1)	4	Compulsory
4	DOK107	Clinical Nutrition	1 (0.5-0.5)	2	Compulsory
5	DOK109	Physical Medicine and Rehabilitation	1 (0.5-0.5)	2	Compulsory
			<b>10</b>	<b>21</b>	

##### SEMESTER 2

No	Codes	Course Name	Credit Point (theory-practice)	ECTS	Course Category
1	DOK102	Pediatrics	4 (3-1)	9	Compulsory
2	DOK104	Dermatovenereology	2 (1-1)	4	Compulsory
3	DOK106	Radiology and medical diagnostics	3 (2-1)	6	Compulsory
4	DOK710/ DOK712	Emergency Pulmonology	1 (0.5-0.5)	2	Elective
5		Medical Rehabilitation	1 (0.5-0.5)		
			<b>10</b>	<b>21</b>	

#### 2<sup>nd</sup> Year:

##### SEMESTER 3

No	Codes	Course Name	Credit Point (theory-practice)	ECTS	Course Category
1	DOK201	Surgery	4 (3-1)	9	Compulsory
2	DOK203	Otorhinolaryngology	2 (1-1)	4	Compulsory
3	DOK205	Ophthalmology	2 (1-1)	4	Compulsory
4	DOK207	Forensic Medicine	1 (0.5-0.5)	2	Compulsory
5	DOK209	Anesthesiology	1 (0.5-0.5)	2	Compulsory
6	DOK709/ DOK711	Emergency Cardiology/ Leadership and Development of Health Organization	1 (0.5-0.5)	2	Elective

Semester credit points		11	23		
<b>SEMESTER 4</b>					
No	Codes	Course Name	Credit Point (theory-practice)	ECTS	Course Category
1	DOK202	Obstetrics and Gynecology	4 (3-1)	9	Compulsory
2	DOK204	Public Health and Community Medicine	2 (1-1)	4	Compulsory
3	DOK206	Family Medicine	2 (1-1)	4	Compulsory
5	DOK208	Comprehensive rotation	4 (2-2)	9	Compulsory
Semester credit points			12	26	
Total credit points/ECTS			43	92	

#### 4.8. Course Descriptions

##### **Internal Medicine (DOK 101)**

Activities in this course include anamnesis, physical examination, to make a diagnosis of diseases in the fields of Medical Hematology-Oncology, Tropical-Infectious Diseases, Allergies-Clinical Immunology, Hepatology, Gastroenterology, Endocrine-Metabolic, Rheumatology, Nephrology, Pulmonary, Cardiac, and the emergence of internal, pulmonary and cardiac diseases. The students should be able to make diagnoses of patient diseases, plan the management of patients with certain diseases in the field of Internal Medicine, Lung and Heart Sciences by applying ethics and professionalism, and plan patient follow-up in terms of promotive and rehabilitativef.

##### **Neurology (DOK 103)**

The Neurological Course is run for 4 weeks (2 credits) covering basic clinical neurology, functional neurotomy, genetic and congenital, pediatric neurological disorders, infections, central nervous system tumors, loss of consciousness, headaches, neurovascular diseases, cranial lesions and brainstem, vascular system disorders, memory deficits, movement disorders, epilepsy and other seizures, demyelination disease, diseases of the spine and spinal arrangement, trauma, pain, neuromuscular diseases and neuropathies, neurobehaviour disorders.

##### **Psychiatry (DOK 105)**

The psychiatry course runs for 4 weeks with a content of 2 credits including performing anamnesis, physical examination, and other medical diagnostics to establish diagnoses of

somatoform disorders, various types of schizophrenia, understanding disorders, psychotic disorders, schizoaffective disorders, bipolar disorders, manic episodes and depressive episodes, panic disorders, thorough anxious disorders, mixed disorders of depressive anxiety, post-traumatic stress disorder, trichotillomania, mental retardation, sexual disorders, hypersomnia, insomnia.

### **Clinical Nutrition (DOK107)**

The Clinical Nutrition course is run for 2 weeks with a content of 1 credit including nutritional disorders (malnutrition, lack and excess), management of nutritional regulation in metabolic diseases such as diabetes mellitus, energy-protein malnutrition, vitamin and mineral deficiencies, dyslipidemia in adults and children, obesity in adults and children, metabolic syndrome, stunting, nutritional status assessment (anthropometric examination).

### **Medical Rehabilitation (DOK109)**

This course is run for 2 weeks with a load of 1 credit, including identification of impairment and disability problems and handiwork, primary prevention of complications of inactivity, keterampilan sorting, referral indications, health promotion (basic medical rehabilitation program), and community-based rehabilitation. It is expected that the students are skillful in conducting physical and rehabilitation examinations, identifying problems of impairment-disability and identifying levels of function and managing patients with basic medical rehabilitation programs, be able to refer to higher service places according to indications, be able to independently carry out promotional and preventive efforts of impairment level impairment disorders – disability and handicap.

### **Pediatrics (DOK102)**

This pediatric clinical rotation train the students to manage diseases in children including tropical and infectious, respiratory, gastroenterology diseases, disorders in neonatology, child and adolescent growth and development, endocrinology, immunology, allergies, hepatology, cardiology, nutrition and metabolic diseases, nephrology, neurology, hematology, oncology, and emergency care. It discusses anatomy, physiology, pathogenesis, signs and symptoms, diagnosis, therapy, complication, counseling and prevention, prognosis, and establish referrals. The students undergo this rotation for 8 weeks with a load of 4 credits.

### **Dermato Venereology Medicine (DOK104)**

The Dermato Venereology Medicine Course is carried out for 4 weeks (2 SKS), covering basic knowledge of Dermatology and Venerology, namely anatomy, skin physiology, efloresensi, and how to test skin diseases; general dermatology; pediatric dermatology; sexually transmitted diseases; tropical diseases; medical cosmetics; allergic diseases; genodermatosis and the basic principles of dermato therapy. The students are expected to be able to analyze data from anamnesis, physical examination, and certain supports to be able to conclude the diagnosis, management, and prevention of skin and venereal diseases according to SOPs correctly.

### **Radiology and Medical Laboratories (DOK106)**

This course runs for 6 weeks with a load of 3 credits. It involves 4 departments: radiology for 3 weeks, clinical microbiology for 1 week, Clinical Pathology for 1 week and Anatomical Pathology for 1 week. At the end of the rotation, students are expected:

- **Radiology** : understand the basic knowledge of radiology (or imaging) - Recognizing the basic anatomical structure in each type of radiology / imaging examination - Recognizing various types of radiology and imejing examinations - Recognizing disease features or emergency conditions in radiology and imejing results - Recognizing disease features or general conditions (which are often encountered) on the results of conventional radiology examinations and some emergency and general advanced imejing examinations (example: Head trauma on a CT scan and back pain in lumbar MRI)
- **Clinical Microbiology** : understand basic knowledge in helping diagnostic diseases caused by bacteria, parasitology and virology so as to help in advanced management and study antibiotic resistance, how to determine germ patterns, as well as bacterial growth media, and fungi, and others.
- **Clinical Pathology:** understand basic knowledge in basic supporting examinations of arterial puncture, venous puncture, finger prick, interpretation of blood gas analysis, basic laboratory examination, complete / routine blood, blood clotting profile, blood sedimentation rate, request for hematological and immunological examinations based on indications, blood type and incompatibility examinations and interpretation of results.
- **Anatomical Pathology:** understands the basic knowledge of diseases that require a biopsy and how to make a biopsy request, the different types of ways of taking biopsies, and the interpretation of biopsy results from various diseases.

### **Surgery (DOK201)**

The student undergoes a rotation in Surgery for 8 weeks (4 credits). This course discusses and is expected that the student will be able to diagnose and plan management regarding wounds and wound healing, infections in the field of surgery, bleeding shock, gastric and esophageal abnormalities, duodenum and small intestine, abdominal emergencies and abdominal trauma and appendicitis, surgical and hepatic abnormalities, bile system and pancreas, hernias, surgical abnormalities in the colon, rectum, & anus, congenital GI-tract abnormalities of children, emergency in infants and children, carcinoma of the oral cavity, neck tumors, thyroid, maxillofacial trauma, basics of oncology surgery: breast abnormalities and oncology aspects, thoracic and pulmonary surgical aspects (trauma / non-trauma), cardiac surgical aspects (trauma / non-trauma cases), vascular-arterial / venous surgery (trauma / non-trauma cases), basic physical examination of orthopaedic abnormalities: infection / inflammation, orthopaedic pediatric congenital abnormalities, traumatology / dislocation fractures, bone tissue neoplasms, basic examination of urological cases: urinary tract stones, male infertility, BPH, prostate carcinoma, urogenital tumors, urogenital tract congenital abnormalities, urinary tract trauma, erectile dysfunction, trauma and degenerative processes of the myelum and peripheral nerves, pathophysiology and management of head trauma, head trauma in children and hydrocephalus, congenital malformations of the nervous system, basics of plastic surgery: burns and wound care, cheilognatopalatoschiziz, skin graft, and flaps, congenital diseases, contractures, keloid elephantiasis

### **ENT (DOK203)**

The ENT disease course is carried out for 4 weeks with a content of 2 credits including anamnesis ability, physical examination, and support as well as the ability to diagnose deafness, inflammation in auricular, labyrinthitis, acute and serous otitis media, otitis externa, mastoiditis, oblique bullosa, foreign bodies, tympanic membrane perforation, otosclerosis, tympanophosclerosis, cholesteatoma, presbyacusis, cerumen pop, hangover, acute acoustic trauma, auricular trauma, deviation of the nasal septum, furuncles of the nose, acute rhinitis, vasomotor rhinitis, chronic rhinitis, medicamentous rhinitis, acute frontal sinusitis, acute maxillary sinusitis, chronic sinusitis, polyps, epistaxis, pharyngitis, tonsillitis, ENT diphtheria, parotid, palsy bells, Meniere disease, clear paralytic positional vertigo, laryngeal carcinoma, nasopharyngeal carcinoma, oral candidiasis, SARS, influenza, bird flu, peritonsillar abscess.

### **Ophthalmology (DOK205)**

The course runs is carried out for 4 weeks with a content of 2 credits including the ability of anamnesis, physical examination and support as well as the ability to diagnose foreign bodies in the conjunctiva, conjunctivitis, pterygium, sub-conjunctival hemorrhage, dry eye, blepharitis, hordeolum, chalazion, laceration of the eyelids, trichiasis, dacryocystitis, scleritis, episcleritis, keratitis, xerophthalmia, hifema, iris, iridocyclitis, mild refractive abnormalities (hypermetropia, myopia, astigmatism, presbyopia), anisometropia in adults, twilight blindness, acute glaucoma and others.

### **Forensics (DOK207)**

This course runs for 2 weeks and discusses legal aspects of forensic medicine, medical secrets, examination at the scene of crime and excavation, visum et repertum, clinical forensics, thanatology and post-mortem intervals, forensic traumatology (blunt/sharp object injuries, chemical injuries, barotrauma, gunshot wounds, electrical wounds, thermotic wounds), asphyxia, sexual crimes, abortion, child murder, forensic toxicology, packaging and delivery of evidence, forensic identification, and sudden death. which are expected to be at the end of the rotation, the students are able to explain the legal aspects of forensic medicine and doctor assistance provided to the judiciary starting from the level of investigation, investigation, and court hearings both to living victims and to death victims who are suspected of being due to criminal acts in accordance with the 2019 Indonesian National Standards for Medical Education.

### **Anesthetics and Intensive Care (DOC209)**

This course runs for 2 weeks. The students learn about integrated emergency management system, the basics for managing emergency patients, handling respiratory patients, oxygen therapy, circulatory problems, fluid therapy in circulatory emergency patients, electrolyte and acid-base balance disorders in respiratory and circulation emergencies, selection of blood components in circulatory emergencies, referral and transportation of emergency patients, drugs used in life-threatening emergencies, resuscitation measures of the pulmonary heart of the brain in adults and in infants, management of perioperative pain and stress, selection of anesthetic and premedical drugs, preoperative examination, anesthesia techniques, early postoperative monitoring, respiratory and circulation complications during anesthesia and



post-early surgery, anesthesia in obstetric surgery, anesthesia, emergency anesthesia, and local anesthesia and infiltration. Each of these materials is applied to the round in the Resuscitation Room (RES). Students should be able to handle emergency patients so that they can carry out life support, patient stabilization, patient transportation, organize anesthesia properly in the sense of conducting presurgical examinations, administering anesthesia and post-surgery for designed patients and certain emergency patients, understanding anesthesia and handling emergency patients with existing facilities, with optimal results, managing acute pain and chronic pain.

### **Obstetrics and Gynecology (DOC202)**

In this particular course, students learn about infections in pregnancy, normal pregnancy, disorders in pregnancy, childbirth and puerperium, abnormalities of the genitalia organs, tumors and malignancies in the genitalia organs as well as breast abnormalities, gynecological and obstetric physical examinations, diagnostic examinations, additional examinations for fertility, rectal examinations to exam vagina, electro or cryocoagulation of the cervix, per abdominal ultrasound pregnancy examination and curettage, therapy and prevention of electro or cryocoagulation and incision of Bartholin abscesses, contraceptive and preconception counseling, normal delivery, breech delivery, low-lying vacuum extraction, post-saline bleeding management, and puerperal treatment. This course runs for 8 weeks with a load of 4 credits.

### **Public Health and Community Medicine (DOC204)**

This course aims to integrate the knowledge and skills of learners in all areas of physician competence into the management of public health and the wider community. The learning method in the rotation of IKK and IKM clinics is carried out by providing opportunities to observe healthcare in public places such as seaports, airports, hajj embarkation, and factories/industries so that students are trained to identify and analyze possible solutions for managing health problems found. Learners are then trained to Compile reports and present community Health activities. Students will also be equipped with knowledge about epidemiology, and biostatistics, to develop a health strategic plan. The course runs for 4 weeks with a load of 2 credits. Learning activities are arranged interestingly and are full of experiences in the form of expert lectures, practical sessions, field trips, compiling strategic plans, and presentations.

**Family Medicine (DOK206)**

This course aims to integrate the knowledge and skills of learners in all areas of doctor competence, into Family health management. The learning method utilized in this clinical rotation is institutional visits to community healthcare facilities around Banda Aceh City. Students are expected to be able to identify family health problems and take preventive and promotive actions for these health problems. Family Medicine clinic rotation activities take 4 weeks with a load of 2 credits. Students are involved in all promotive and preventive health measures for different age groups, including vulnerable groups as well as providing some forms of palliative care. This course also includes some lectures, health promotion, writing reports, and presenting the report.

**Comprehensive rotation (DOC208)**

Comprehensive clinical rotation is a course aimed at integrating all the knowledge and skills that have been acquired by learners at the previous clinical rotations as well as preparing the students before the National Competency Board Examination. Comprehensive clinical rotations are prepared for learners to apply their knowledge and skills across departments. Students will be faced with actual cases that they are most likely to manage when they graduate to become doctors and carry out internships at secondary health facilities (hospitals). It is expected that students after passing through a comprehensive clinical rotation, are more confident and more competent to handle cases across departments according to the area of competence and level of ability of doctors. This clinical rotation runs for 8 weeks with a load of 4 credits. The students are guided in ER of a teaching hospital for 4 weeks, 2 weeks of NCBE CBT guidance, and another 2 weeks of NCBE OSCE guidance.

**Emergency Pulmonology (DOK710)**

The rotation of emergency pulmonology clinics is arranged so that students are able to identify and handle emergency cases of the respiration system. Students are trained to be able to apply all areas of doctor competence including anamnesis skills, physical examination to emergency management that must be given immediately to patients with emergency respiration systems, to the ability to be introspective about the limitations of doctors' abilities before referring patients vertically. The emergency pulmonology clinic rotation is an elective rotation with a

payload of 1 credit (2 weeks). Learning methods utilized in this course, which are bedside teaching and case reports may differ across departments.

### **Addictive Rehabilitation (DOK712)**

The rotation of the addictive rehabilitation clinic is structured so that learners are able to identify and handle cases of addiction. Students are trained to be able to apply all areas of doctor competence including psychiatric anamnesis skills, physical examination to initial management that must be given immediately to patients with addiction problems, to the ability to be introspective about the limitations of the doctor's ability before referring patients vertically. The rotation of the addictive rehabilitation clinic is an elective rotation with a load of 1 credit (2 weeks). Learning methods with bedside teaching, home/institutional visits, and case reports or adjusted to the department.

### **Emergency cardiologi (DOK 711)**

The rotation of emergency cardiology clinics is arranged so that students are able to identify and handle emergency cases of the respiration system. Students are trained to be able to apply all areas of doctor competence including anamnesis skills, physical examination to emergency management that must be given immediately to patients with cardiovascular system emergencies to the ability to be introspective about the limits of doctors' abilities before referring patients vertically. The emergency pulmonology clinic rotation is an elective rotation with a payload of 1 credit (2 weeks). Learning methods utilized are bedside teachings and case reports.

### **Health Organization Leadership and Development (DOK711)**

Clinical rotation on leadership and health organization development aims to integrate the knowledge and skills of learners in all areas of doctor competence to achieve the competence of doctors as leaders. This method of learning in the course is carried out by providing opportunities for students to observe health leadership systems at either primary or secondary Health facilities. Students are provided with hands-on learning experiences about the governance system of health organizations ranging from program planning, and program implementation to continuous evaluation of health programs. The method of studying at this clinical rotation is by conducting institutional visits, compiling, and presenting the report.



#### 4.9. Matrix for Relationship Between Subject of Study and Competency Based Education

No	Intended Learning Outcomes	Subject of Study																				
		Internal Medicine	Neurology	Psychiatry	Clinical Nutrition	Physical Medicine And Rehabilitation	Pediatrics	Dermatovenereology	Radiology And Medical Imaging	Elective 1 : Emergency Medicine	Elective 2: Addiction Medicine	Surgery	Otorhinolaryngology	Ophthalmology	Forensic Medicine	Anesthesiology	Elective 3: Emergency Medicine	Elective 4: Leadership And Quality Improvement	Obstetrics And Gynecology	Public Health And Community Medicine	Family Medicine	Comprehensive Rotation
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Component		Semester 1					Semester 2					Semester 3					Semester 4					
1	A1 Fear of God Almighty, demonstrate honesty and religious attitudes, uphold human values in carrying out duties based on morals, views, the opinions or original findings of others, and internalize academic values, norms, and ethics.	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H

2	A2	Contribute to improving the quality of life in society, nation, state, and the progress of civilization based on Pancasila (the foundational philosophical theory of Indonesia), play a role as a proud citizen, demonstrate nationalism, and a sense of responsibility to the country and nation, as well as obey the law and discipline in social and state life	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
3	A3	Collaborate and have social sensitivity and concern for society and the environment and a broad view, open, positive thinking, and socio-cultural insights	M	M	M	M	M	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H	
4	A4	Demonstrates an attitude of being responsible for work in his field of expertise independently, practicing lifelong learning, developing knowledge, and behaving professionally with an optimistic, high curiosity, willingness to learn, and introspective attitude.	L	L	L	L	L	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H	
5	K1	Mastering the <b>biomedical, clinical, preventive medicine, social and humanities, disaster management, and entrepreneurship</b> principles to manage health problems at the individual, family, community, and community levels, holistically and comprehensively.	L	L	L	L	L	L	L	L	L	L	M	M	M	M	M	M	M	M	H	H	H	H

6	K2	Conduct and develop research in the field of medicine, health, and <b>medical education</b> by using the principles of <b>research methodology</b> to solve health problems in society and able to publish it in the scientific community.	L	L	L	L	L	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H
7	S1	Be able to apply logical, critical, systematic, and innovative <b>thinking</b> , carry out the process of self-evaluation of the work group under their responsibility and manage the implementation of science and technology that pays attention to and applies humanities values according to their field of expertise	L	L	L	L	L	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H
8	S2	Be able to <b>communicate</b> with patients and families, work independently and collaborate with multidisciplinary partners, communities, and stakeholders based on ethics, and then make <b>decisions</b> appropriately and accurately in the context of solving problems in their area of expertise, based on the results of information and data analysis.	L	L	L	L	L	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H
9	S3	Be able to document, store, secure, and retrieve data to ensure validity and prevent plagiarism, study the implications of the development to prepare a <b>thesis and project report</b> , and upload it on the university's website;	L	L	L	L	L	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H

10	S4	Be able to apply the principles of <b>health profession education, disaster management, and entrepreneurship</b> in the field of medicine and health	L	L	L	L	L	L	L	L	L	L	L	M	M	M	M	M	M	M	M	H	H	H	H
11	C1	Be able to explore and exchange information <b>verbally and non-verbally</b> with patients of all ages, family members, communities, colleagues, and other professions	L	L	L	L	L	M	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H	H
12	C2	Be able to utilize <b>information communication technology</b> and health information in medical practice	L	L	L	L	L	M	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H	H
13	C3	Be able to carry out <b>clinical procedures</b> related to health problems by applying patient safety principles, the safety of oneself, and others	L	L	L	L	L	M	M	M	M	M	M	H	H	H	H	H	H	H	H	H	H	H	H
14	C4	Be able to manage individual, family, and community <b>health problems</b> in a comprehensive, holistic, integrated, and sustainable manner in the context of primary health care	L	L	L	L	L	L	L	L	L	L	L	M	M	M	M	M	M	M	M	H	H	H	H