2021

CURRICULUM BOOK

Rector Decree Number : 1528 / UN11 / KPT /
2021

THE BACHELOR OF MEDICINE PROGRAM

FACULTY OF MEDICINE

UNIVERSITAS SYIAH KUALA

USK
UNIVERSITAS
SYIAH KUALA

FOREWORD

The preparation of the curriculum book for the Bachelor of Medicine (BM) 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 KKNI in the Field of Higher Education, and The Regulation of the Minister of Education and Culture of the Republic of Indonesia (Permendikbud RI) 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" policy of the Ministry of Education, Culture, Research, and Technology. This curriculum book is prepared to be a reference in the implementation of the Bachelor of Medicine Program, Faculty of Medicine, Syiah Kuala University. 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 Syiah Kuala University.

The design of this curriculum is certainly imbued with the mission and values of Syiah Kuala University and is developed based on the community's needs in accordance with the results of the evaluation of tracer studies and the development of medical science. 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 in responding to global challenges and the needs of society.

Banda Aceh, May 2021
Dean of the Faculty of Medicine

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION

The Faculty of Medicine, Universitas Syiah Kuala (FoM USK) was established on April 1, 1982 to meet the needs of doctors in Indonesia, especially in Aceh Province. Currently, FK USK has 15 programs, two of which are the Bachelor of Medicine Program (PSPD) and the Medical Doctor Program (PSPPD). In August 2016 and July 2022, PSPD and PSPPD FK USK were accredited "excellent" by the Indonesian Health Higher Education Independent Accreditation Institute (LAM-PTKes). This achievement encourages FK USK to continue improving the quality of its programs.

FoM USK aims to become an excellent, competitive, and innovative Medical Faculty at the national and international levels by 2025. The BM and MD programs of this school of medicine illustrate their profile of graduates as doctors, researchers, community activists, academic educators, entrepreneurs, and disaster managers. This illustration provides direction for the development of institutions that are prioritized in two fields of excellence, namely *Disaster Management* and *Family Medicine*. Therefore, the school established a strategic plan to develop the two programs on its mission, and achievement targets.

The curriculum at the BM program has been designed to be implemented as an outcome-based learning process strengthening the integration of research in accordance with established Indonesia's standards for medical doctor competence. Since 2006, the BM program has been implementing a competency-based curriculum utilizing the Problem-Based Learning (PBL) method.

The FoM is spreading its impact at the regional level. In 2019 the BM program received recognition from the Thai Ministry of Health. Thailand has been sending its students to study in the BM program. The effective implementation of the FoM management cycle (Planning, Organizing, Implementation, Evaluation, and Improvement of Higher Education Standards) in the curriculum, learning process and academic atmosphere provides positive impacts on increasing the Grade Point Average (GPA), timely graduation, and student achievement.

The fast-changing medical sciences challenge the FoM to adjust to the demands of scientific competency standards in the BM curriculum, covering the biomedical, behavioral and clinical sciences. Therefore, every five years of so the BM program assign a group of expert to revise the curriculum accordingly. The preparation of this BM Curriculum book was carried out by a team appointed by the Dean based on the Decree of the Chancellor of

Universitas Syiah Kuala Number 327/UN11.7/KPT/2021. Based on the results of the previous curriculum evaluation involving components of external stakeholders and graduate users (the Public Health Office, hospitals, community health facilities, and alumni representatives), the faculty leaders (Dean and head of the school), teaching staff, and students, decided to strengthen understanding of biomedical science and behavioral sciences in this particular curriculum of 2021. In addition, it is necessary to strengthen the concept of *leadership* in health service management, and *entrepreneurship* in the health world in accordance with the needs of the industrial revolution era 4.0.

The preparation of this BM 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. To encourage student-centered and self-directed learning, the 2021 BM combines didactical lectures, tutorial discussions, practical sessions and other learning methods.

CHAPTER 2 THE PROGRAM PROFILE

2.1. Mission of the BM program

According to the mission of FoM USK, which is “to become an excellent, competitive and innovative Faculty of Medicine at the national and global level by 2025”, the BM program formulated its mission as "to produce bachelor of medicine graduates who are competitive, innovative and have the excellence in the field of disaster management and family medicine at the national and international levels by 2025".

To achieve the mission above, several goals have been determined, which are:

1. Organizing an integrated medical and professional education.
2. Conducting innovative research in medicine and health to support the development of education and benefit the community.
3. Conducting various forms of community service in the fields of medical technology and humanities.
4. Organizing a good faculty governance that orienting to quality.
5. Strengthen and expand institutional networking both at national and and international level in the context of developing and developed countries.

EDUCATIONAL OBJECTIVES

1. To produce professional and competent graduates capable of facing challenges in the fields of healthcare in the context of disaster
2. Producing graduates who have competence in conducting research in the field of medicine and health in order to improve the quality of life of the society
3. To produce of graduates who have a high concern for the environment and are able to devote various forms of community service in the fields of science, technology and social humanities.
4. To implement good governance standard.

2.2 Teacher and staff profiles

In the last three years, the number of permanent teachers employed by the Ministry of Education and Culture at the FoM is 182 people. There are 77 of them who are assigned as BM program home-based teachers. The rest of them are teachers who are assigned as

home-based teachers at other programs under the FoM USK. The number of teachers with doctoral qualifications is 86 (37%). The number of teachers with professorship positions is 10, and senior lecturers are 26 people. Therefore, the percentage of teachers with qualifications of professors and senior lecturers is 19.7%. The number of teachers who have been nationally certified as educators is 121 people, which is 67% of the total number. The ratio of the teachers compared to the number of students of the BM program is 1:3.

The academic staff of FoM USK is 155. Some of them (26 people) are permanently hired by the university, 107 are contracted by the university, and 22 are self-managed by the faculty. The civil servants consist of archivists and administrators for departments, laboratories, technicians, finance personnel, facilities and infrastructure stewards.

2.3 Profile of Learning Resources

FoM USK has lecture theaters, laboratories, media rooms and equipped infrastructures to support lectures, practical sessions, research and community service activities, as listed on the http://simadu.unsyiah.ac page. en. In terms of accessibility, each unit has its own manager and administrators to manage schedules of utilization which is arranged in such a way that all academics have the same rights in utilizing them. All facilities and infrastructures at the FoM USK are maintained to ensure their proper condition and of good quality to be used for academic and social activities.

- Adequate lecture theater and tutorial rooms. For lecture theater with large capacities, FoM USK has lecture theater with a standard room area of 1.82 m2 per student. As for the tutorial room and clinical skill training laboratory, which is divided into several small classes, FoM USK has a building with a standard area of 2.25 m2 per student.
- The biomedical laboratory space and the clinical skills laboratory are adequate with the facilities according to specific needs, with a standard area of 6.75 m2 per student.
- A library is centrally located in the university. In addition, the FoM has reading rooms unit with a very complete collection of library materials. The service hours at the USK library are 65 hours per week, this has met SNI 7330:2009 for Higher Education Libraries, which is 54 hours per week. Lecturers and students has 24/7 access to open library digital collections through the http://uilis.unsyiah.ac.id.

- Students have access to social activity facilities including: sports hall, student lounge, computer hubs, canteen, prayer rooms, clinic, USK teaching hospital (RSP), banks and ATM, student dormitory, training center, and parking lots.

2.4 Profiles of Student Services at FoM USK (Association, student clubs, sports, and arts)

The FoM USK provides access and services for students to develop student talents and interests (extracurricular), soft skills development, scholarships, and health services. The presence of student council and clubs has been used very well and functions as a forum for developing interests and talents, as well as increasing capacity building both academically and socially,which is indicated by an increase in student achievement. Scholarship information services provided by the university can be accessed by students through the http://kemahasiswaan.unsyiah.ac.id/.

The students obtain quality health services USK'S primary care clinic and the USK teaching hospital, including emergency services, outpatient services (general practitioner clinics, specialist services, dental and oral clinics), inpatient services, laboratory examinations, and pharmacies. Every academic year a health check is carried out for each new student. Every new student is subjected to routine health checks, and then students can access health services.

Guidance and counseling services have also been well utilized by students, either on their own initiative or by reference from the FoM teachers. Counseling services for students are centered on the Integrated Counseling and Psychology Service Unit, which is managed by the Psychology Program of the FoM USK (http://uptkonseling.unsyiah.ac.id/). In addition, scholarship support is also sought for underprivileged students. The scholarship sources come from: Academic Achievement and Improvement Scholarship organized by the USK, national government Scholarship, Bank Rakyat Indonesia 'Smart Indonesia' Scholarship, DKU Scholarship, Osaka Gas Scholarship, Thesis Writing Assistance (BUMIDA), Amal Salih Scholarship, PT. Pelindo II, Karya Salemba Empat (KSE) Scholarship, and Beswan Djarum Plus Scholarship.

The dormitory service (http://asrama.unsyiah.ac.id/) can be accessed mainly by Bidikmisi scholarship recipients and foreign students. Bidikmisi scholarship recipients also get increased capacity building for the first two semesters in the dormitory.

Student services in the field of career counseling and entrepreneurship guidance have been carried out through 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 BM FoM USK Program through the alumni sub-section also conducts an alumni *tracer study* whose data is updated and can be accessed on the program page http://fk.unsyiah.ac.id/prodi/.

CHAPTER 3 ACADEMIC REGULATION

3.1. Basic Understanding of Semester Credit System

3.1.1. Credit

a) System Semester Credit

System Semester Credit System is an education administration system using credits to state student study load, lecturer workload, learning experience and program implementation load

b) Semester

is a unit of activity time consisting of 19 to 24 credits consisting of blocks - learning blocks and general compulsory subjects (MKWU). The activities include tutorials, expert lectures, practicum, field activities, medical skills and structured and independent learning. Semester implementation is divided into 2, namely:

- Regular Semester

The unit of time for academic activities consisting of 16 (sixteen) weeks of lectures or other scheduled activities effectively including evaluation activities.

- Intermediate/Short

Semester The additional semester offered by the study program is equivalent to 1 semester of activities carried out for a minimum of 8 effective weeks.

c) Semester Credit

Units Semester Credit Units are the amount of study time charged to students per week per semester in the learning process through various forms of learning experiences obtained during block activities which include tutorial activities, expert lectures, practicum, field activities, medical skills as well as structured and structured learning. independent.

d) Semester Credit Units in block activities

Semester Credit Units in block activities is a measure of appreciation for learning experiences gained during one block period consisting of:

- Tutorial 4 hours per week

- Expert Lecture 100 minutes of meetings for 6 - 12 meetings in 1 block.

- Practicum 2 - 4 hours per week.
- Field Activities 2 - 4 hours per week.
- Structured and independent activities 4 - 6 hours per week.

e) Semester Credit Units for Medical Skills Training

Semester Credit Units for Medical Skills Training is a measure of appreciation for the learning experience gained during one semester period consisting of:

- 2 hours of guided practice per week.
- Self-training 2 hours per week.
- Student evaluation 2 hours per week.

3.1.2.Learning

activities and strategies are adapted through offline learning (face to face and online*)*. The following is an explanation of several activity formats and learning strategies used in implementing the curriculum at USK Medical Faculty:

1. **Interactive expert lectures/lectures/face-to-face**

   This activity focuses on the concept *teaching learning center* through interactive public lectures. In the *hybrid* , conventional learning methods and PBL methods will be carried out. The number of lectures is adjusted to provide additional time for students to study independently. Lectures are arranged based on topics and content that are adapted to preclinical competency standards and National Standards Doctoral Professional Education (SNPPDI) 2019. Interactive lecture activities are carried out with various variations, for example combining lecturer material descriptions through image analysis, ordering pictures, practicing in pairs, group work, analyzing concepts in cards, *snow ball throwing, course review hooray,* and quizzes using various applications such as Google Classroom, Kahoot, etc. (note: please refer to PEKERTI book volume 1 page 183-221)

2. **Tutorial discussion.**

   The tutorial discussion in the PBL system takes place in small groups consisting of 8-12 students under the guidance of a trained facilitator (tutor). Tutorial activities are scheduled twice a week. During the discussion, discussion participants must ensure

that students have read relevant learning resources so that they can be used as references in tutorials. To achieve the learning objectives used the seven-step method *(seven jumps)*. At the first meeting of the tutorial discussion, the discussion covered steps 1 to 5 and steps 6 and 7 were carried out at the second meeting for the same scenario. The questions that need to be emphasized for students are: what is needed to know, what is already known, and what is expected to be known.

The following is a description of the 7-step principle *(the 7 jumps)*.

Table 3.1 *The Seven Jumps*

No.	Step	Description
1	Identification of terms	In order to understand, students need to try to find terms or concepts that are not clear or unfamiliar from the scenario, then explain them to equalize perceptions.
2	Problem identification	Students try to find the core problem and additional problems in the scenario.
3	Problem analysis	*Brainstorming*/ brainstorming by exploring problems and trying to explain concepts using their previous knowledge (even though the concepts and explanations are still wrong, the tutor does not need to comment immediately).
4	Structuring	Based on steps 2 and 3, students group problems and concepts and then form a systematic and logical pattern/scheme.
5	Identification of learning objectives	Formulating things that need to be further studied independently
SELF STUDY TIME: Students		
6	Presentation of learning outcomes	Students report independent study results, findings of information related to learning objectives formulated together with step 5.
7	Synthesis	Summarizing new knowledge that has been obtained

3. **Plenary discussion Plenary**

activities are carried out in large groups (>60 students) guided by expert lecturers or scenario makers. The plenary meeting is held after the completion of the second session of tutorial discussions for each scenario, aiming to equalize perceptions of interesting findings obtained in tutorial discussions or community visits.

4. **Practical sessions**

This learning activity aims to strengthen students' skills and is carried out at laboratories or in the field. In the process of implementing the practical sessions, the teachers may be assisted by laboratory assistants. Learning evaluation is carried out through pre-tests, post-tests, and practical examinations.

5. **Clinical Skill Training**

   Activities carried out in the clinical skill laboratory with a composition of <12 students, having 2-3 sessions of meetings. History-taking skills, communication skills, clinical skills, and other skills are organized on a scheduled basis with the arrangement of medical skills management. Students have the opportunity to practice these skills from their first year at the Faculty of Medicine. The evaluation is carried out in the form of an OSCE (Objective Structured Clinical Examination) conducted at the end of each semester.

6. **Seminar**

   One of the student presentation learning activities carried out with various variations, such as:

   - One group of speakers
   - Two groups, one speaker and one comparison
   - Playing a role/drama according to the theme with a *script* made by the students
   - *Devils advocate*, two groups arguing with each other about one theme (usually issues of clinical ethical dilemmas).

7. **Patient encounter**

   In this activity, students not only observe but also take anamnesis, physical examination and education/counseling to patients (can be done at the puskesmas, or at home during online learning with family members). The results are compiled in the form of group reports and presented to tutors/lecturers.

8. **Institutional visit**

   In certain blocks, field activities are carried out. This activity is intended so that students get an overview of health problems or the scope of work of medical science in the community. In this activity, students are programmed to visit health service centers such as health centers, hospitals, and can even directly visit patients' homes or the community.

9. **Research**

Learning activities carried out independently/small research groups with specific supervisors.

10. **Thesis Writing**

    Every BM student is required to complete a medical thesis by the end of their program. This thesis is written as a final project in the form of research with selected topics according to student interests.

11. **Small Community Project**

    Performed by students and the community in off-campus locations under the guidance of lecturers.

12. **Independent Learning**

    In the self-study format, students are expected to be able to find learning materials from various available sources and understand them and be able to reconstruct the newly acquired knowledge with the knowledge they have previously. Self-study is one of the main formats in PBL to achieve the learning objectives of the block.

3.2. Semester credit score and study load

3.2.1 Credit Points

This Bachelor of Medicine education program is carried out for 7 semesters, with a study load of 150 credits which is divided into preclinical modules, clinical block modules and medical skills *(lab skills*). The preclinical module consists of expert lectures and practicum learning activities. The clinical block module consists of tutorial activities, expert lectures, practicum, field visits (*patient encounters*). Medical skills (*skill lab*) are carried out in the medical skills laboratory. Preclinical module evaluations/exams are in the form of midterm exams, end-semester exams and *progress test*. Clinical block evaluation is held at the end of each block, medical skills evaluation/test is carried out at the end of the semester. For lectures, the value of 1 (one) credit is determined based on the activity load for 1 semester from the activities that have been programmed in each module.

- For students, the

  weight of 1 (one) credit in the form of lectures, responses and tutorials, includes:

  i. Face-to-face learning activities of 50 (fifty) minutes per week per semester;

ii. Learning activities with structured assignments of 60 (sixty) minutes per week per semester; and
iii. 60 (sixty) minutes of self-study activities per week per semester.

- For lecturers

i. 50 (fifty) minutes of face-to-face events with students on a scheduled basis.
ii. 60 (sixty) minutes of structured academic activity planning and evaluation.
iii. 60 (sixty) minutes of course material development.

Credit score for seminars or other similar forms of learning weighs 1 (one) credit in the form of seminar learning or other similar forms of learning, including:

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

The weight of 1 (one) credit in the form of practicum learning, studio practice, workshop practice, field practice, research, community service, and/or other equivalent forms of learning is 170 (one hundred and seventy) minutes per week per semester.

3.2.2 Study

Load The study load each semester for all students is the same. Every student since the first semester is required to take part in all lecture and block activities as well as medical skills that have been set for that semester.

3.2.3 Study Time Limit

Medical undergraduate education must be completed within 7 semesters (3.5 years), starting from being registered for the first time at the Faculty of Medicine, Syiah Kuala University. However, the maximum opportunity is given for a maximum of 12 semesters, if it exceeds this time, to be able to continue education, it must obtain the approval of the FK Senate and the permission of the USK Chancellor.

3.3. Learning outcomes evaluation system and study limits

Evaluation of student learning outcomes is defined as a process to obtain information that is used to make decisions related to students, curriculum and educational policies. The design of the learning outcomes evaluation system must be in accordance with the educational objectives and adapted to the curriculum used. The method/instrument used must

meet the principles of validity, reliability, acceptability (visibility) and have a good influence on the student learning process.

The main purpose and objective of evaluating student learning outcomes is to assess the ability of students to have mastered the competencies set out in the curriculum so that based on the results of the evaluation a final assessment can be taken. In addition to this main purpose, the results of student learning evaluations can also be used to evaluate the ongoing learning process. In line with the implementation of the PBL curriculum which has been implemented since 2006 at the USK Medical Faculty, in general the evaluation system for educational programs is as follows:

1. **Block *Assessment***

Block exam is an evaluation test at the final stage of implementing each block. The implementation is carried out in the last week of the period in one block. The type or type of block end exam questions is in the form of multiple choice questions (*Multiple Choice Questions*/ MCQ).

Students who take the block exam are students who have met the exam requirements set by PBL management. The final block assessment includes a cognitive component and a process component. The final block value is obtained from a cognitive test conducted at the end of the block and has a weight of 60%. The block process value which consists of tutorial, practicum, *home visit*, *community encounter* scores has a weight of 40%. Practical exams are carried out entirely by the relevant laboratories. The weighting of the practicum value depends on the practicum component in the block and the maximum practicum value weight is 20% of the overall value of the process.

<u>Conversion of Values</u>

Student test scores in the form of numbers (from a value scale of 0 - 100) are converted into letters by referring to the PAP (Banner Reference Assessment). The LAP is applied based on the consideration of the demand for the level of competence in the field of knowledge carried out by a particular subject and on the basis of one of the following reasons:

a. Faculty provisions considering the nature and position of the block in question in the curriculum package of a study program;
b. S value is less than fair (S < 10 or S > 25)

The range of PAP values is as follows:

Table 3.2. PAP Variant

A 87
78 AB < 87
69 B < 78
60 BC < 69
51 C < 60
41 D < 51
E < 41

2. Assessment *Skills assessment)*

OSCE (*Objective Structured Clinical Evaluation*) is a system used to assess the components of skills/skills carried out in the medical skills laboratory which is carried out at the end of the semester.

The OSCE system is carried out by means of students moving from one station to the next, within a predetermined time for each station (each station 5 – 15 minutes). Prior to the implementation of the OSCE, there will be a socialization of the schedule, station plan, check list and requirements that must be met to be able to participate in the OSCE. Students are declared to have passed the OSCE exam if the average score that must be achieved is at least 70, provided that there is no component value less than 70. The final score for medical skills consists of the OSCE score (80%) and the value of the activity process taken from the *progress report* (20 %). Students are declared not to pass at the end of the semester evaluation if there is one or several skills whose value is less than 70.

Table 3.3 Skills assessment Assessment Criteria

Values in the form of numbers	**Values in the form of letters**
90.00 – 100	A (very skilled)
80.00 – 89 .99	B (skilled)
70.00 – 79.99	C (quite skilled)
60.00 – 69.99	D
0 – 59.99	E

Overall, the form of evaluation carried out in learning with the PBL system, consists of:

a. Written exam : knowledge assessment in the form of MCQ.
b. Skill test in the form of OSCE and practicum.
c. Oral test for cognitive skill assessment – *Clinical Reasoning Skills*.
d. Test cases to assess competence (cognitive and psychomotor skills)
e. SOCA: *Student Oral Case Analysis Practical*
f. exam.
g. paper */logbook*

The evaluation form currently used by the USK Medical Faculty is a written test in the form of MCQ and a skill test in the form of OSCE and practice.

3.4. Academic guidance.

Each student has an Academic Supervisor. The following are some matters relating to the academic supervisor:

a. Behave, behave and act as a supervisor for the student concerned, especially for the smooth implementation of the student's academic activities.
b. Accompany, guide and provide counseling for students who are under his guidance, which has a relationship with the student's academic progress.
c. Guiding the preparation of the study plan/change of the student's study plan and then ratifying the study plan.
d. Validate Student Study Results Card.
e. Submit problems and or problem solving experienced by students to parties who can help solve the problem. These parties are: Faculty Leaders, Teaching Staff, Faculty Administration, University Guidance and Counseling Centers, Psychiatrists, Psychology, or other doctors, Student Families and other Students
f. To be able to carry out these functions, academic supervisors are expected to be able to collect and analyze background conditions students, both regarding academic achievement and personal.
g. The guidance is valid until the completion of education.
h. If unable to attend, the Deputy Dean for Academic Affairs can replace the role of Academic Advisor.

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

a. Media communication between students and lecturers guardian.
b. To monitor the academic progress of students by the guardian lecturer
c. To detect early on academic problems or other non-academic problems that affect student study results by the guardian lecturer
d. To be able to provide a solution to the academic problems faced by students

In one semester, the minimum number of academic mentoring activities is 3 mandatory meetings, between students and their academic supervisors. The first meeting is when filling out the KRS, the second meeting is in the middle of the semester to report the blocks that have been passed, and the third meeting is at the end of the semester to report the results of the semester block exams, OSCE exam results and remedial schedules.

3.5. Academic administration

All academic data of undergraduate medical students are computerized. The required documents are:

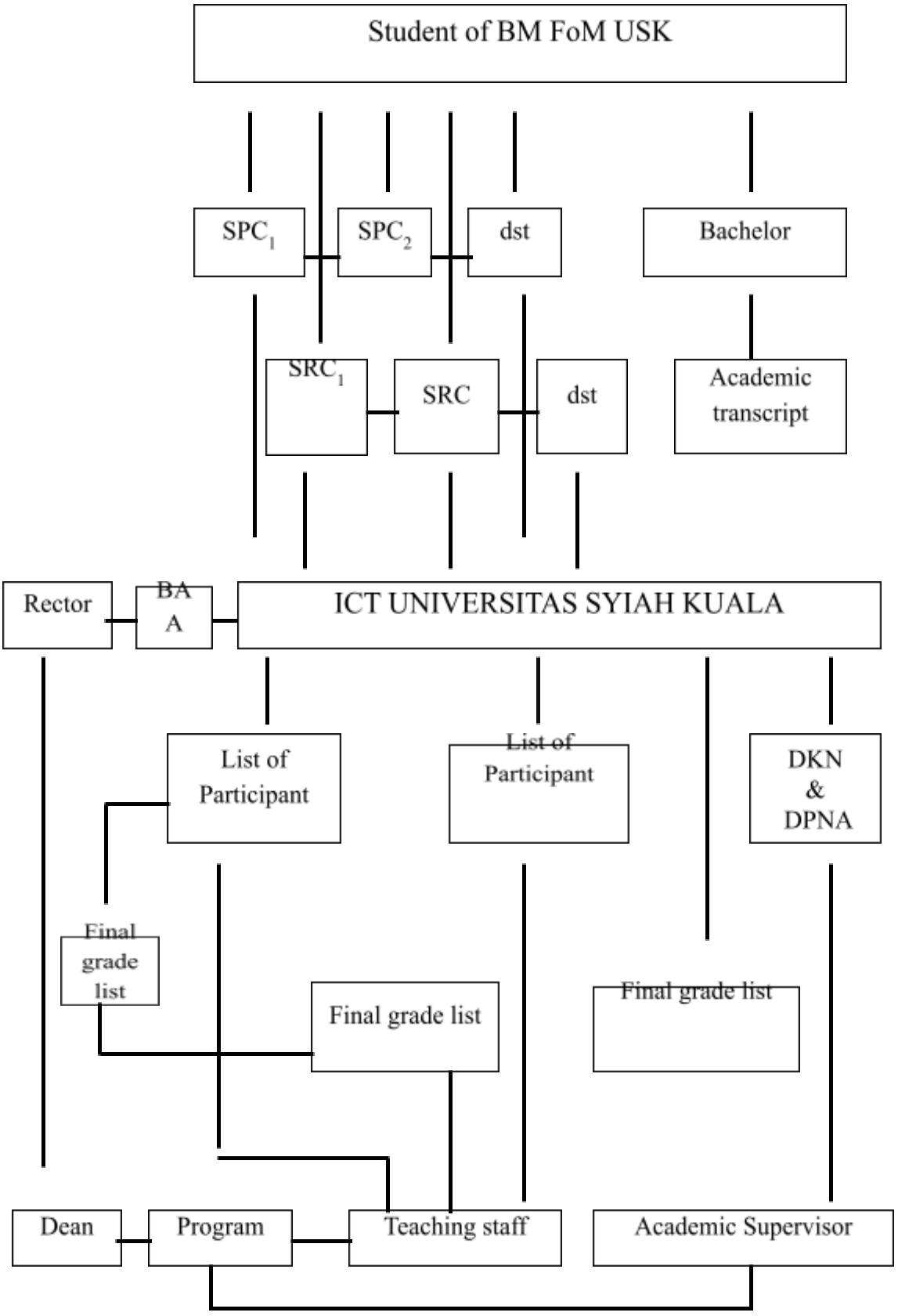
1. Study Plan Card (KRS)
2. Final Grade List (DPNA)
3. Study Result Card (KHS)
4. List of Participants (DP)

At the beginning of each semester academic activity, students fill out the digital study plan card with the guidance of an academic supervisor. This study plan card data is processed by the information and communication technology (ICT) unit so that final grades is obtained for each course. Furthermore, the information obtained from final grade list is processed to produce study result card for each student. At the end of the study period, the Dean will issue academic transcripts for each graduate with assistance with the help of ICT Unit.

Completion of Study Plan Card (KRS)

Towards the start of study activities in each semester, students carry out online student study card by submitting it on ICT unit website with a predetermined time limit for all courses listed in the semester. After submitting the study plan card, students print it. Furthermore, students meet the Academic Supervisor to discuss the study plan. The supervisor may sign approval to the plan. If the Academic Supervisor is unable to do so for acceptable reasons, the signing of the card can be represented by the Deputy Dean for Academic Affairs. For students with a GPA less than 1.5, the study plan card can only be done after bringing a statement letter of having counseled from the USK counseling guidance center. If the student does not fill out the study plan card at a predetermined time without an acceptable reason, then the student is not allowed to participate in academic activities in that semester.

Skema alur pengelolaan akademik seperti terlihat pada gambar 1 dapat dijelaskan sebagai berikut:


Student of BM FoM USK
SPC1
SPC2
dst
Bachelor
SRC1
SRC
dst
Academic transcript
Rector
BAA
ICT UNIVERSITAS SYIAH KUALA
List of Participant
List of Participant
DKN & DPNA
Final grade list
Final grade list
Final grade list
Dean
Program
Teaching staff
Academic Supervisor

3.6. Evaluation of the Learning Processes

The learning process carried out by students will go through several stages of evaluation, with the following conditions:

1. Evaluation of student learning is carried out at the end of each semester, at the end of the second, and the last year of the BM program
2. The learning progress is expressed in a measure of the value of Grade Point Average (GPA). The calculation of GPA is carried out by first converting the letter-shaped value into the form of the value of each block and medic skills with the following weights:

   A = 4; AB = 3,5; B = 3; BC = 2,5; C = 2; D = 1; E = 0
3. Evaluation on the second years of study (after completion of the fourth semester). At the end of the study period of the first two years, the success of the student's study is evaluated to determine the continuation of his studies. The student concerned is allowed to continue their studies if they meet the following requirements:
   a. Have accumulated at least 63 credits
   b. Achieved a ≥ 2.00 GPA
4. Evaluation of the progress of the last study year (upon completion of semester 8). At the end of the next two-year study period students are required to:
   a. Collect at least 125 credits;
   b. Achieved GPA ≥ 2.00

   The status of students who do not successfully meet these requirements will be decided by the Chancellor after hearing the consideration of the Senate of the Faculty of Medicine.
4. Evaluation of the success of the study at the end of the stage of the Bachelor of Medicine Education Program (end of semester 7). Students are declared to have finished undergoing the Bachelor of Medicine Program if they have passed all blocks and OSCE and have carried out research siding with a GPA of ≥ 2.00 and no D. For this reason, students will get a medical diploma with a Bachelor of Medicine degree.

To obtain this diploma, students must bring proof of graduation of all activities in the academic program to the office of academic affairs FOM USK. Students who have not completed the Program after undergoing 10 full semesters, their status will be decided by the Rector after listening to the consideration of the Senate of the FoM USK.

CHAPTER 4 CURRICULUM

4.1. Graduate Profiles

There are 6 graduate profiles of FoM USK:

1. **Bachelor of Medicine**

   The bachelor of medicine should possess and master biomedical and clinical medical science and master basic and clinical skills, able to provide medical services to patients in teaching hospitals under the supervision of expert doctors. The Bachelor of Medicine is able to apply interprofessional learning and apply the principles of communication, cultural competence, and professional ethics in providing medical services to patients in teaching hospitals under the supervision of specialists.

2. **Researcher**

   The Bachelor of Medicine is 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 Bachelor of Medicine 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 Bachelor of Medicine 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 Bachelor of Medicine 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 Bachelor of Medicine are able to become an important element in supporting disaster management along with other professions.

4.2. Intended Learning Outcomes (ILO)

The ILOs of the BM program are prepared with reference to the Indonesian National Qualifications Framework (KKNI) and the 2019 National Standards for Professional Medical Education (SNPPDI), which are divided into 4 main components, namely:

1). Attitude component (A),

2). Knowledge Component (K),

3). Skills Component (S),

4). Competence Component (C).

a. Attitude Component (A)

The attitude component of the BM ILOs is formulated based on the guidelines for the national higher education standard (SN-Dikti) based on permenristekdikti ri no.44 of 2015. learning outcomes of the attitude component can be seen in the next table.

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.
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
A3	Collaborate and have **social sensitivity** and concern for society and the environment and a broad view, open, positive thinking, and socio-cultural insights
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.

b. Knowledge Component (K)

The knowledge component is based on the 2019 SNPPDI. The learning achievements of graduates of the knowledge component in the BM program can be seen in the next table:

K1	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.
K2	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.

c. Skill components (S)

The skills component of ILOs of BM programs is formulated based on the guidelines of the National Higher Education Standards (SN Dikti)) and Indonesian National Standard of Medical Doctor Competence 2019 and can be seen in the following table:

S1	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
S2	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.
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 **thesis and project report**, and upload it on the university's website;
S4	Be able to apply the principles of **health profession education**, **disaster management**, and **entrepreneurship** in the field of medicine and health

d. Competence component (C)

The competence component is based on the Indonesian Standard of Medical Doctor Competence 2019, which is mentioned in the following table:

C1	Be able to explore and exchange information **verbally and non-verbally** with patients of all ages, family members, communities, colleagues, and other professions
C2	Be able to utilize **information communication technology** and health information in medical practice
C3	Be able to carry out **clinical procedures** related to health problems by applying patient safety principles, the safety of oneself, and others
C4	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

4.3. Curriculum Composition Curriculum

Based on the ILOs, there are divisions of learning subjects to achieve the outcomes. These learning subjects are grouped into four categories, which are described in the following table:

No	Learning subjects	Credit points	ECTS
1	Biomedical Sciences	71	96.00
2	Behavioral Sciences, Ethics, & Medical Humanity	6	8.12
3	Clinical Sciences	53	71.72
4	Leadership, Family Medicine, Disaster Management, Health Service Management	11	14.88
5	Electives	9	12.18
Total		**150**	**203.52**

1. **Biomedical Sciences**

Courses included in the theme of Biomedical Science are implemented in semester 1 to 3 utilizing conventional methods (didactical lectures, practical sessions, seminars, and assignments) and last for 16 weeks. consisting of several disciplines carried out in parallel, namely Medical Biology, Anatomy and Physiology of musculoskeletal, visceral, and endocrine systems, Histology, and Biochemistry. These courses aim to assist students to be able to explain the structure, tissue, and function of the human body as well as the biochemical changes that occur in physiological conditions related to the organ systems of the human body.

Also included under the theme of biomedical sciences are diagnostic medical sciences (*Medical Diagnostics*), such as microbiology, parasitology, anatomical pathology, clinical pathology, pharmacology, and radiology. These courses are taught in semesters 2 and 3 using the same method of biomedical sciences (conventional methods). Using the methods, students may understand the basic concepts of disease including etiology, pathogenesis, and basic hemato-immunology, supporting them in learning basic therapeutic management. Students are also introduced to more comprehensive advanced and supporting physical examination skills.

There is also a course of Introduction to Medical Education that equip students with learning skills to be able to adapt to medical medicine. In this particular course, students are introduced to the topic of speed reading and *e-learning*, and others. These skills are very important things that can be used as capital for students to undergo the learning process while at the FoM USK, and of course it will be even more useful when they undergo the medical

profession in the future. Students are expected to have the skills to continue learning until it is time for graduates to come face to face with the community.

2. Behavioral Sciences, Ethics, & Medical Humanity

There are courses that assist students to acquire knowledge, attitude, and skills in interpersonal communication, history taking, ethics, doctor professionalism, medical jurisprudence, as well as sociology and anthropology. This topic is important because it will help students learn to understand education to be competent and skilled medical doctors with a strong understanding of cultural competence.

3. Clinical Sciences

The theme of Clinical Medicine I is held in the fourth semester of the second year which is a clinical integration of*basic medical science* in the previous semester. Learning in this theme is carried out using the PBL (*Problem Based Learning)* and conventional methods with a load of 16 credits. The courses for the block system last for 3-6 weeks consisting of several blocks, namely the Tropical Medicine block 4 credits, the Life & Development Cycle block 2 credits, the Neurology and Psychiatry System block 5 credits, the Cardiorespiratory block 4 credits. The theme of Clinical Medicine II is held in the fifth semester of the third year which is a continuation of the clinical medicine course I in the previous semester. Learning in this theme is carried out using *Problem Based Learning* and conventional methods with a load of 16 credits. The courses for the block system last for 4-6 weeks consisting of several blocks, namely the Musculoskeletal System block 4 credits, the Digestive System block 4 credits, the Haematoimmunology System block 3 credits, and the Pediatric & Geriatric block 3 credits.

The theme of Clinical Medicine III is held in the sixth semester of the third year which is a continuation of the clinical medicine course II in the previous semester. Learning in this theme is carried out using the *Problem Based Learning*. This course lasts for 5-6 weeks and has a load of 20 credits consisting of several blocks, namely the Urinary & Reproductive system block 4 credits, the Endocrine & Nutritional System block 4 credits, the Indra System block 4 credits, and the Emergency Medical & Reanimation block 4 credits.

4. Leadership, Family Medicine, Disaster Management, Health Service Management

The theme of Health Management and Service Support Systems is implemented in semesters 6 and 7. Learning in this theme is carried out using Problem-Based Learning

and activities in the field or outside the campus. The courses in this cluster consist of the Family Medicine & Health Service Management block with 4 credits in the 6th semester, the Sports Medicine & Medical Rehabilitation block with 3 credits, and the Disaster Management and Forensics block with 5 credits.

Interpersonal Education (IPE)

The theme of Interprofessional Education(IPE) is an implementation of a learning program followed by two or more different professions to improve collaboration and the quality of health services. This program is in the 3rd semester of basic pharmacology 3 credits in collaboration with the Pharmacy Study Program, 5th semester of the endocrine system, metabolism & nutrition course 4 credits in collaboration with the Faculty of Nursing, 6th semester of medical emergencies & reanimation 4 credits in collaboration with the Faculty of Nursing and Pharmacy Study Program, and in the 7th semester of the 4 credits disaster management course in collaboration with the Faculty of Nursing, Pharmacy Study Program, and the Faculty of Dentistry.

4.4. List of Courses in semesters.

CURRICULUM

BACHELOR OF MEDICINE PROGRAM

FACULTY OF MEDICINE UNIVERSITAS SYIAH KUALA

ACADEMIC YEAR OF 2021-2024

SEMESTER I				
No	**Course Code**	**Course Name**	**Credit point (theory-practice)**	**Category**
1	MKS103	Citizenship Education	2 (2-0)	Compulsory
2	MKS106	Disaster and Environmental Education	2 (2-0)	Compulsory
3	MKS201	English	2 (2-0)	Compulsory
4	PPD113	Medical Biology	2 (1-1)	Compulsory
5	PPD115	Medical Histology	3 (2-1)	Compulsory
6	PPD117	Anatomy of Musculoskeletal, Visceral, and Endocrine organs	3 (2-1)	Compulsory
7	PPD119	Physiology of Musculoskeletal, Visceral and Endocrine	3 (2-1)	Compulsory
8	PPD121	Introduction to Medical Education	2 (2-0)	Compulsory
9	PPD123	Clinical Skills Training 1	2 (0-2)	Compulsory
		Semester credit points	**21**	
SEMESTER 2				
No	**Course Code**	**Course Name**	**Credit point (theory-practice)**	**Category**
1	MKS101	Indonesian Language	2 (2-0)	Compulsory
2	MKS104	Basic Concepts in Sociology and Culture	2 (2-0)	Compulsory
3	PPD114	Basic Biochemistry	3 (2-1)	Compulsory
4	PPD116	Basic Pharmacology	3 (2-1)	Compulsory
5	PPD118	Anatomy of Nerve, Special Senses, and Urogenital organs	3 (2-1)	Compulsory
6	PPD120	Physiology of Nerves, Special Senses, and Urogenital organs	3 (2-1)	Compulsory
7	PPD122	Basic Concepts in Medical Humanity	2 (2-0)	Compulsory
8	PPD124	Clinical Skill Training 2	2 (0-2)	Compulsory
		Semester credit points	**20**	
SEMESTER 3				
No	**Course Code**	**Course Name**	**Credit point (theory-practice)**	**Category**
1	PPD215	Clinical Biochemistry	3 (2-1)	Compulsory
2	PPD217	Parasitology	3 (2-1)	Compulsory
3	PPD219	Microbiology	3 (2-1)	Compulsory
4	PPD221	Anatomical Pathology	3 (2-1)	Compulsory
5	PPD223	Clinical Pathology	3 (2-1)	Compulsory
6	PPD225	Pharmacotherapy	3 (2-1)	Compulsory
7	PPD227	Clinical Skill Training 3	2 (0-2)	Compulsory
8	PPD229	Radiology	2 (1-1)	Compulsory
		Semester credit points	**22**	
SEMESTER 4				

No	Course Code	Course Name	Credit point (theory-practice)	Category
1	MKS105	Islamic Education	2 (2-0)	Compulsory
2	PPD218	Life cycle, Growth, and Development	2 (2-0)	Compulsory
3	PPD220	Tropical Medicine	4 (3-1)	Compulsory
4	PPD222	Neurology and Psychiatry	4 (4-0)	Compulsory
5	PPD224	Cardiology and respiratory system	4 (4-0)	Compulsory
6	PPD226	Basic Concepts in Research Methodology	2 (2-0)	Compulsory
7	PPD228	Clinical Skill Training 4	2 (0-2)	Compulsory
		Semester credit points	**20**	
SEMESTER 5				
No	**Kode Mata Kuliah**	**Nama Mata Kuliah**	**SKS (K-P)**	**Kategori MK**
1	PPD313	Nerves, Muscle, and Skeleton System	4 (4-0)	Compulsory
2	PPD315	Digestive System	4 (4-0)	Compulsory
3	PPD317	Hematology and Immunology	3 (3-0)	Compulsory
4	PPD319	Pediatrics and Geriatrics	3 (3-0)	Compulsory
5	PPD321	Medical Humanity	3 (3-0)	Compulsory
6	PPD323	Clinical Skill Training 5	2 (0-3)	Compulsory
7	PPD325	Applied Health Research	2 (2-0)	Compulsory
		Semester credit points	**21**	
SEMESTER 6				
No	**Course Code**	**Course Name**	**Credit point (theory-practice)**	**Category**
1	PPD314	Family Medicine and Health Care Management	4 (3-1)	Compulsory
2	PPD316	Urinary and Reproductive System	4 (4-0)	Compulsory
3	PPD318	Endocrine System and Nutritional Science	4 (4-0)	Compulsory
4	PPD320	Special Senses	4 (4-0)	Compulsory
5	PPD322	Medical Emergency and Resuscitation	4 (4-0)	Compulsory
6	PPD324	Clinical Skill Training 6	2 (2-0)	Compulsory
		Semester credit points	**22**	
SEMESTER 7				
No	**Course Code**	**Course Name**	**Credit point (theory-practice)**	**Category**
1	MKSP02	Community Service Program	2 (0-2)	Compulsory
2	PPD411	Sports Medicine and Medical Rehabilitation	3 (3-0)	Compulsory
3	PPD413	Disaster Management and Forensics	5 (4-1)	Compulsory
4	PPD501	Elective Course 1	3 (3-0)	Elective
5	PPD503	Elective Course 2	3 (3-0)	Elective
6	PPD505	Elective Course 3	3 (3-0)	Elective
7	PPDPA2	Medical Thesis	5 (5-0)	Compulsory
		Semester credit points	**24**	
TOTAL SKS			**150**	

4.5. Description of the courses

1. Citizenship Education (MKS 103)

This course discusses the philosophy of Pancasila, national identity, rights and obligations of citizens and the constitution, Indonesian democracy, Human Rights and *the Rule of Law*, Indonesian Geopolitics, Indonesian Geostrategy, national resilience, national insight, anti-government education. corruption that is able to provide an ethical basis for student behavior in the life of society, state and nation. The PPKn course is carried out in semester 1 with a load of 2 credits.

2. Disaster and Environmental Education (MKS 106)

This course explains the concept of environment and disaster and analyzes the problems that exist in the environment. The concept of environment and disaster, population development, and problems related to disaster management are discussed in this course, including analyzing hazards, resources, and how to manage them. This course is implemented in semester 1 with a load of 2 credits.

3. English

This course helps BM students to acquire the skills of listening, reading, and understanding literature written in English. These skills are often overlooked but crucial in obtaining scientific information and disseminating their opinions and thoughts.

4. Medical Biology (PPD 113)

Medical biology course is held in semester 1 and is included in biomedical science cluster. This course has 2 credit points and consists of various branches of science and sub-disciplines. In general, all branches of medical biology are united by the basic concepts that govern all biological research, namely the concepts of cells, genes, and evolution. Students are expected to be able to explain the concept of medical biology and know the development of technology that allows studies at the molecular level that makeup organisms through molecular biology and biochemistry, which is also widely supported by the development of computational techniques in the field of bioinformatics.

5. Medical Histology (PPD 115)

Medical histology course held in semester 1 of the first year. This course has 3 credit points and is carried out for 16 weeks through lectures, practical session assignments, and independent study. Students are expected to be able to explain the tissue structure in detail

using a microscope on thinly cut tissue preparations, one of the branches of biology. Histology can also be referred to as the science of microscopic anatomy. Here, students study the physiological functions of cells in the body, both humans, animals, and plants, and in the form of histopathology, which is useful in establishing the diagnosis of diseases involving changes in physiological function and organ deformation. For example, in the field of medicine, the presence of a tumor requires the results of a tissue sample (sample).

6. Anatomy (PPD 116 and PPD 117)

Anatomy courses are divided into 2 clusters, namely Anatomy of the Musculoskeletal, Visceral, and Endocrine System which is held in semester 1, and Anatomy of the Nervous, Sense, and Urogenital System in semester 2 of the first year. Students are expected to be able to explain the morphological structure of this living organism by studying its various parts, their positions, and their interrelationships with each other. Students are also introduced directly to parts of the human body in general and per systems such as cardiovascular, respiration, gastrointestinal tract, reproduction, nerves, and many others. This course contains 3 credits and is carried out for 16 weeks through expert lectures, practicum, and independent study.

7. Physiology (PPD 118 and PPD 119)

The Physiology course is divided into 2 clusters, namely Physiology of the Musculoskeletal System, Internal Organs and Endocrine which is held in semester 1 and Physiology of the Nervous, Sense and Urogenital System in semester 2 in the first year. This course is carried out for 16 weeks through expert lectures, practicum, and independent study. Students are expected to be able to understand and explain the concept of homeostasis, the normal functions of the human body and its body parts. This science emphasizes the way in which living organisms or their body parts function normally. Students must understand the concept of physiology by understanding the mechanism of how something lives and works in balance.

8. Biochemistry (PPD 114 and PPD 215)

Biochemistry courses are divided into 2 clusters, namely basic biochemistry which is carried out in semester 2 and clinical biochemistry in semester 3 in the second year, with 3 credits each. This course is carried out conventionally for 16 weeks through expert lectures, practicum, and independent study. Students are expected to be able to understand the

concepts of biochemistry which study the role of various molecules in chemical reactions and processes that take place in living things. The scope of Biochemistry is very broad in accordance with life itself. Not only studying the processes that take place in the human body, students are expected to be able to explain various processes in organisms ranging from simple to complex.

9. Humanities (PPD 504 and PPD 505)

Humanities courses are divided into 2 clusters, namely basic humanities concepts which are implemented in the 2nd semester and Medical Humanities in the 5th semester in the third year. This course is conducted in parallel and takes 14 weeks plus 1 (one) week for evaluation. This course will deepen clinical, forensic and medicolegal bioethics as one of the most important components in studying forensic and medicolegal aspects of medical education. With the material from this course, it is hoped that students will more easily understand and explain forensic and medicolegal issues better.

10. Basic Parasitology (PPD 217)

The basic parasitology course is held in the 3rd semester of the second year which is included in the theme **of Diagnostic Medicine** with a load of 3 credits. This course is carried out conventionally for 15 weeks through expert lectures, practicum, and independent study. Students are expected to be able to understand the basic concepts of parasitology which studies all parasitic organisms. includes: protozoa, helminths, arthropods and parasitic insects, both zoonotic and anthroponotic. Students are also expected to be able to understand and explain the scope of parasitology including taxonomy, morphology, life cycle of each parasite, as well as the pathology and epidemiology of the disease it causes.

11. Basic Microbiology (PPD 219)

Anatomical pathology course held in the 3rd semester of the second year which is included in the theme **of Diagnostic Medicine** with a load of 3 credits. This course is carried out conventionally for 15 weeks through expert lectures, practicum, and independent study. Students are expected to be able to explain basic microbiological concepts such as the physical structure and chemical reactions of microorganisms, biochemical processes in multicellular organisms, so that by studying microbiology students are able to understand that microorganisms can be a model in studying biochemical and genetic processes in other organisms.

12. Anatomical Pathology (PPD 221)

Anatomical pathology course held in the 3rd semester of the second year which is included in the theme **of Diagnostic Medicine** with a load of 3 credits. This course is carried out conventionally for 15 weeks through expert lectures, practicum, and independent study. Students are expected to be able to explain organs and body tissues (cell groups), and understand that anatomical pathology is a branch of medical diagnostics along with radiology and other pathological specialties (eg, microbiology and chemical pathology).

13. Clinical Pathology (PPD 223)

Anatomical pathology course held in the 3rd semester of the second year which is included in the theme **of Diagnostic Medicine** with a load of 3 credits. This course is carried out conventionally for 15 weeks through expert lectures, practicum, and independent study. Students are expected to be able to understand clinical medicine that participates in studying diagnostic and applied problems. Students are able to explain and determine the right examination for a diagnosis such as morphological, microscopic, chemical, microbiological, serological, hematological, immunological, parasitological, and other laboratory examinations that are really needed and according to indications. Students can participate in researching the form and course of the disease in a patient or materials derived from a patient.

14. Radiology (PPD 227)

The radiology course held in the 3rd semester of the second year which is included in the theme **of Diagnostic Medicine** with a load of 2 credits. Radiology is the science of studying and seeingbody humansby using radiation or wave radiation, both electromagnetic waves and mechanical waves. Students are expected to be able to understand the basic science concepts of radiology, regarding the working system of x-ray rays, high-wave scanning (ultrasonic) such as ultrasonography (USG), CT-scan and also Magnetic Resonance Imaging (MRI)

15. Basic Pharmacology (PPD 502)

Pharmacology Basic is a course in semester 3 of the second year. This course contains 3 credits and is carried out for 16 weeks conventionally. In this course students are expected to understand the scope of clinical pharmacology in relation to therapy, understand pharmacodynamics, pharmacokinetics, pharmacogenetics, aspects of drug pharmacopoeia, monitoring in drug therapy, variability of therapeutic effects and influencing factors. Students

are able to explain therapy with drugs in special groups of patients (neonates, children, elderly, pregnant or lactating, kidney failure, circulatory failure, impaired liver function and fluid and electrolyte balance disorders); describes pharmacotherapy in cardiovascular disorders or diseases, respiratory, gastrointestinal, hormonal, urinary tract, life and nerves, bacterial infections, viral parasites and cancer pharmacotherapy.

16. Basic Concepts of Research Methods (PPD 510)

The subject of basic concepts of research methods is carried out in the second year in semester 4 with a load of 2 credits. After completing this block, students are expected to be able to understand the basics of developing medical science and technology using relevant scientific methods, how to write with scientific principles, understand the basis of research, selection of research designs and methods both quantitatively and qualitatively, and how to collect data. Students are expected to be able to write and present research proposals, understand health problems and how to solve them that can enrich scientific insight and support career development according to their talents and interests.

17. Life Cycle and Growth (PPD 218)

The life cycle and growth block is the first block in semester 4, the second year. The courses in this block are given in an integrated manner between various disciplines including child health, obstetrics and gynecology, and clinical nutrition. After completing this block, students are expected to be able to explain and manage conditions related to child growth and development, life cycles, and human nutrition, according to their role as family doctors at the primary care level. This block is expected to be the basis for a higher-level during education and to be able to provide provision for the provision of primary health services after completing education. The main modules in this block are child growth and development and nutrition in pregnancy and the first 1000 days of birth, antenatal care and detection of abnormalities in infants and children, pathology of pregnancy, pathology of childbirth and postpartum. Learning activities include tutorial discussions, plenary tutorials, expert lectures, practicum, skill labs and independent learning activities. Each of these activities is included in the assessment component according to their respective weights. This block is carried out for 4 weeks with a load of 2 credits.

18. Tropical Medicine Block (PPD 506)

tropical medicine block is the second block of the curriculum with the *Problem-Based Learning* which is implemented in semester 4 of the second year. This block belongs to the **Clinical Medicine**I. Along with the increasing problem of tropical diseases globally, students are expected to be able to understand the importance of developing competent human resources in handling tropical diseases, especially malaria, typhoid fever, dengue and filariasis. The main sections involved in this block are clinical microbiology, parasitology, pediatrics and internal medicine.

Students are expected to be able to play an active role in tackling disease problems, including producing effective tropical disease research so that they can assist the government in reducing the incidence of tropical diseases in the community. Students are also able to understand tropical medicine with an in-depth understanding of parasitology and clinical microbiology. The modules in this block consist of 2 (i) tropical medicine and (ii) viral, bacterial, parasitic infections and their management. This block activity takes 5 weeks with a load of 4 credits. This block is in an area of moderate competence, consisting of tutorial discussions, plenary tutorials, expert lectures, practicums, patient encounters, community visits, skill labs and independent learning activities.

19. Neurology and Psychiatry Block (PPD 508)

Neuropsychiatric Block is the third block with the Problem-Based Learning which is carried out in semester 4 of the second year. This block activity takes 6 weeks, with a load of 5 credits. The sections involved in this block are neurology, psychiatry and pediatrics. In this block there are 5 main modules, namely diseases of the central/peripheral nervous system, neuro-emergency, behavioral psychiatric disorders, organic mental disorders and mental problems in children. It is hoped that it will assist students in understanding the role and function of the nervous system and behavior/psychiatry so that they are able to perform clinical correlations related to diseases in this system.

20. Cardiorespiratory System Block (PPD 220)

The Cardiorespiratory system block is the fourth block in semester 4 of the second year using Problem-Based Learning. This block learning takes 5 weeks with a load of 4 credits. This block will be studied about the pathology of the cardiorespiratory system, the factors that influence cardiorespiratory disorders, and clinical disorders that arise due to disorders of the system. Modules in this block cover infectious and non-infectious diseases of the cardiorespiratory system. The sections involved in this block are cardiology and

pulmonology. To support learning in this block, apart from expert lectures, there are also tutorial sessions, plenary sessions, practicums, cardiorespiratory system skills labs, and patient encounters or home visits.

21. Neuromusculoskeletal System Block (PPD 313) The

Neuromusculoskeletal System Block is the fifth block in semester 5 of the third year of the Problem-Based Learning curriculum. This block activity takes 5 weeks, with a load of 4 credits. In this block there are tutorial discussions, plenary tutorials, expert lectures, practicum, skills lab, *patient encounters* and independent learning activities. The teams involved in this block are internal medicine, neurology, orthopedic surgery and medical rehabilitation. The modules discussed are infectious and non-infectious diseases of the neuromusculoskeletal. This block will introduce the neuromusculoskeletal system as one of the most important components in the human body.

It is hoped that it will help students understand the role and function of the neuromusculoskeletal system, be able to perform clinicopathological correlations related to diseases of this system, be able to explain the disease and determine the diagnosis and management according to the competencies specified in the 2019 SNPPDI.

22. Digestion Block (PPD 315) Digestive

system block is the sixth block of the competency-based curriculum with the *Problem-Based Learning*. This block activity takes 5 weeks with a load of 4 credits. This block consists of tutorials, plenary sessions, expert lectures, practicums, *community visits*, skills labs and independent learning activities. The main modules of this block are diseases of the gastrointestinal system in children and adults, and hepatobiliary and pancreatic disorders. The teams involved in the block are the child health department and the internal medicine department.

Students are expected to be able to explain the medical science underlying gastrointestinal, hepatobiliary & pancreatic diseases, explain the causative agents of infection, determine supporting examinations for disease diagnosis, explain management, and explain emergency diseases in the gastrointestinal, hepatobiliary & pancreatic systems.

23. Hematoimmunology Block (PPD 317)

Hematoimmunology Block is the seventh block in the fifth semester of the third year using the *Problem-Based Learning* at the Faculty of Medicine, Syiah Kuala University. This

block activity takes 4-5 weeks, with a load of 3 credits with learning activities in the form of tutorials, plenary tutorials, expert lectures, practicums and *community visits*. The competency content portion is focused on the children's section, IPD and the skin/sex health science section. Modules in this block consist of hematological, inflammatory and autoimmune disorders in children and adults. With the material from this block, it is hoped that students will more easily understand and explain problems and diseases that arise in the hematology and immunology system and can explain diseases and determine diagnosis and management in accordance with the competencies specified in the 2019 SNPPDI

24. Pediatric & Geriatric Block (PPD 319)

Pediatric & geriatric block is the 8th block in the 5th semester of the third year using the *Problem-Based Learning*. This block activity is carried out with 3 credits for 5 weeks. Learning activities consist of tutorials, plenary tutorials, expert lectures, practicums, skills labs, and *community visits.* The main modules in this block are infectious and non-infectious diseases in children, immunization, puberty and adolescent problems, degenerative diseases and assessment of geriatric function.

This block will introduce the phases of childhood, puberty and old age, as one of the important components because they have a great influence on the next phase of the life cycle. By studying this block, students are expected to be able to understand and explain the life cycle of children leading to puberty and old age, especially regarding physiology and pathophysiology as well as the principles of diagnosis and management of disorders/diseases associated with these two phases. The sections involved in this block are child health, IPD, psychiatry and neurology.

25. Medical Research Application (PPD 323)

Medical research application course is a course that is held in the third year in semester 5 parallel to 5 blocks in that semester. This course is carried out for 16 weeks with a load of 2 credits. This second research course is expected to provide students with knowledge, understanding and mindset in understanding the concept of *mixed method*, statistical analysis and interpretation of data/results. With the material from this lecture, it is hoped that students will more easily understand biostatistics and advanced research methodologies in accordance with the competencies specified in the 2019 SNPPDI. The expected output at the end of this block is the holding of a research proposal seminar on

26. Family Medicine & Health Service Management (PPD) Block 314)

The family medicine & health care management block is the ninth block in the 6th semester of the third year. This block is a basic introduction to public health science and community medicine. The learning process is carried out with expert lectures, plenary, skills practicum, field studies/community service, proposal guidance and independent study. This block is implemented in parallel for 15-16 weeks with a weight of 4 credits. The teams involved in this block are IKM/IKK, nutrition and *family medicine.* The main modules that will be discussed are the structure and function of health management both at the primary service level (Puskesmas) and advanced services (hospitals), infectious and non-communicable disease prevention programs, primary care physicians, principles of family medicine, *medical entrepreneurship, telemedicine, health insurance. ,* management of FKTP/private clinics and the concept of *palliative care*.

In this block, students are expected to be able to explain the concepts of public health science, epidemiology, preventive medicine, and family medicine based on Islam as provisions in providing primary health services with a holistic and comprehensive approach for individuals and their communities. Students are expected to be able to explain, plan and apply promotive, preventive, curative, and rehabilitative aspects of disease, through organized health efforts both as a community and individually with approaches to family medicine, public health and occupational medicine.

27. Urinary & Reproductive System Block (PPD 316) Urogenital and reproductive

system block is the 10th block in the 6th semester of the third year using the *Problem-Based Learning*. This block activity takes 6 weeks with a load of 4 credits. This block is in the medium competence area. This block consists of tutorials, plenaries, expert lectures, case studies, practicums, and *patient encounter*. The sections involved in this block are urological surgery, obstetrics and gynecology, as well as the skin/venereal science section. The modules covered consist of diseases of the urogenital system, disorders of the breast and female genitalia, and infectious disorders and malignancies in the field of gynecology.

This basic urogenital and reproductive block will introduce the urogenital system and basic reproductive system as one of the important components in the human body's reproductive system, including the urinary tract system, male and female genital systems, and reproductive systems. It is hoped that it will be able to assist students in understanding the roles and functions of the urogenital and basic reproductive systems and be able to perform

clinicopathological correlations related to diseases of the urogenital system and reproductive system.

28. Endocrine and Nutritional System Block (PPD 318) The

The endocrine and nutritional system block is the 11th block in the 6th semester of the third year using the Problem-Based Learning approach. This block activity totals 4 credits and takes 6 weeks, with tutorials, expert lectures, plenary, practicum, skills lab, and patient encounters at the Endocrine Poly and Pediatric Endocrine-Gastro Poly - RSUDZA. The main modules of the block are endocrine and metabolic disorders, nutrition in geriatrics, and dietary concepts in endocrine/metabolic disorders. The person in charge of this block is IPD and Clinical Nutrition. This block will introduce the endocrine and metabolic systems as one of the most important components in the human body. which discusses more deeply diseases related to metabolism and the endocrine system from etiology, and pathophysiology to management. In addition, it also examines the influence of nutrition and medical nutrition management for endocrine diseases and their relation to occupational health.

29. Special Senses System (PPD 320)

The Special Senses System block is the 12th block in the 6th semester of the third year using Problem-Based Learning. This block activity takes 5 weeks, with a load of 4 credits. This block consists of tutorial discussions, plenary tutorials, expert lectures, practicums, skill labs, community visits, and independent learning activities. The divisions involved in implementing the block activities are eye health, ENT, and skin/genital health. The main modules discussed are infectious and non-infectious disorders of the senses of sight, ENT, and skin/genitalia. This block learns about problems related to disorders of the structure and function of the human body in the senses and integumentary systems. After completing this block, students are expected to be able to apply the principles of biomedical, behavioral, and public health sciences to the problems of the sensory and integumentary systems, to know the risk factors and causes of sensory and integumentary system problems in general, to explain the causal relationship between the complaints process in the sensory system and the integumentary system. integument, obtain and record complaint information on the sensory and integumentary systems as needed through accurate communication and relevant examination of the individual, and be able to plan primary preventive action against individuals with complaints in the sensory and integumentary systems. This block learning strategy includes debriefing, tutorial discussions, skill labs, expert meetings and independent

learning activities. Assessment in this block consists of cognitive, psychomotor, and affective assessments.

30. Emergency Medical & Reanimation Block (PPD 322)

The emergency medical and reanimation block is the thirteenth block in the sixth semester of the third year using problem-based learning. This course activity takes 5 weeks, with a load of 4 credits, with tutorial learning activities, plenary, expert lectures, plenary, hospital visits, and patient encounters. The portion of the competency load is given by the sections of surgery, anesthesia and resuscitation, and emergency medicine. The modules that will be discussed are the concept of emergency and life support, traumatology, and reanimation in minor/major surgery. The emergency block will provide students with knowledge, understanding, and mindset in dealing with emergency cases that require immediate help. This block will train the students to manage emergency cases in general to save lives so as to reduce disability and death rates.

31. Sports Medicine & Medical Rehabilitation Block (PPD 411)

sports medicine and medical rehabilitation block is the 14th block and is implemented in the 7th semester of the fourth year using the problem-based learning. This block has a weight of 3 credits for 5 weeks and learning activities for students consist of tutorials, plenary sessions, lectures, expert consultations, case studies, practicums, and assignments. The departments involved are physiology, medical rehabilitation, heart & blood vessels, nutrition, psychiatry, and orthopedic surgery. The modules that will be discussed are exercise programs for fitness and degenerative diseases, exercise periodization programs, physical condition tests, handling sports injuries, basic medical rehabilitation, referrals for medical rehabilitation services, and drug addiction rehabilitation. The final assessment is determined from lecture attendance, individual assignments, practicum scores, and block test scores. This block examines the application of medical science to physical activity and sports. This medical science can be used to determine the preparation of athletes in order to get optimal performance with minimal risk of injury. In addition, sports medicine also studies how sports injuries are managed. To study the Sports Medicine Block, it is recommended that students have mastered Anatomy, Physiology, Histology, and Biochemistry, and have understood the general principles of the musculoskeletal system, cardiorespiratory system, nervous system, endocrine system, and gastrointestinal system.

32. Disaster Management and Forensics Block (PPD 413) The

The disaster management and forensics block is the fifteenth block of the 7th semester in the fourth year using Problem-Based Learning. This course activity takes 5 weeks, with a load of 5 credit points. These activities are supported by tutorial discussion sessions, plenary sessions, lectures, practical sessions, institutional visits and independent assignments. This disaster and forensic management block will provide a comprehensive understanding and skills that are appropriate, practical and simple according to the academic level of students in the field of disaster management. This block also emphasizes the importance of good cooperation between the medical profession and all components of society in disaster management.

Armed with the above teaching concepts, it is hoped that in the future students will have the same mindset that in disaster management it is impossible for the medical profession to work alone, but instead we must be in a system that is able to cooperate with anyone. Nevertheless, the ability of medical professionalism must still be prioritized, by always updating knowledge and skills through various trainings in the future so that the role of doctors will become a major part in patient care & patient safety in every disaster management that can occur anywhere, anytime and even if you have to work with anyone. The sections involved in this block are surgery, forensics and *family medicine.* The main modules are disaster risk reduction, disaster preparedness, disaster emergency response, post-disaster rehabilitation, visum and autopsy, and medicolegal. This block is the flagship block of the Syiah Kuala Faculty of Medicine, and is one of the elective blocks offered. This block is very important to study considering the geographical location of Indonesia which makes it a disaster-prone area.

33. Elective Courses I, II, and III (PPD 507, PPD 509, PPD 511)

Elective courses provide opportunities for students to develop their preferences toward a particular field of science. The total load on this elective block is 9 credit points carried out in the 7th semester of the fourth year. There are 3 elective courses and each has 3 credit points. This block is implemented for 4-5 weeks. Students may choose 3 out of several choices, including Occupational Medicine, Antimicrobial agents, Neurovascular Medicine, Leadership and Medical Entrepreneurship, Basic biomedical techniques, Becoming Medical Teacher, or Bioinformatics, or they can obtain the 9 credit points from an apprenticeship in healthcare facilities or other health-related institutions such as health insurance and research centers.

34. Thesis Writing (PPDPA2)

The thesis is carried out in the fourth year in the 7th semester and has a load of 5 credits. Writing a thesis is a mandatory task for students in the form of preparing research proposals to research activities and presenting research results. Under the guidance of 2 supervisors who are determined by the USK FK TPS unit.

35. **Community Service (MKS P02)**

The Community Service Program aims to improve the competence and role of students as community activists, increase social sensitivity, foster a spirit of volunteerism, and collaborate with and contribute to the community. This course is programmed for undergraduate students who meet the administrative requirements and conditions as participants in the program. The activities in this particular course of 2 credit points are carried out within a full month (30 days) implementation period, starting from preparation, monitoring and evaluation to reporting. Students who have met the requirements and want to take part in community service course must register first.

CHAPTER 5 CONCLUSION

This Bachelor of Medicine Curriculum Book of 2021 is the result of the refinement of the 2016 Curriculum Book. Several additions to this Curriculum Book include graduate profiles, expansion of Intended Learning Outcomes (ILO), and strengthening of biomedical science competencies.

This Curriculum Book is prepared to serve as a reference in the implementation of the Bachelor of Medicine Program, Faculty of Medicine, Universitas Syiah Kuala. This Curriculum Guide is expected to be carried out consistently in the implementation of the BM Program and be evaluated periodically to ensure quality outcomes (graduates) who are competent and capable in responding to global challenges and community needs.