ACADEMIC GUIDELINES



Faculty of Mathematics and Natural Sciences
Universitas Negeri Surabaya
2020

CHAPTER I
INSTITUTION

A. Vision, Mission, Purpose, Goals, and Motto of Universitas Negeri Surabaya

1. Vision

Universitas Negeri Surabaya has a vision to be excelent in education and strong in science.

2. Mission

Based on the above vision, Universitas Negeri Surabaya carries the missions to:

a. organize student-centered education through effective learning approaches and the optimization use of technology;
b. conduct researches of science and/or technology of which the significance contributes to the development of sciences and social welfare;
c. disseminate science and/or technology through community services oriented towards the empowerment and civilization of the society; and
d. organize an effective, efficient, transparent, and accountable higher education governance to ensure the sustainable quality.

3. Purpose

Universitas Negeri Surabaya has a purpose to carry out higher education, research, and community services.

4. Goals

Universitas Negeri Surabaya has the goals to:

a. produce intelligent, religious, noble, independent, professional, and excellent graduates;
b. produce excellent scientific and creative works in education and science to which become the reference of the application of science and/or technology;
c. engage in community services through the implementation of science and/or technology to establish an independent, productive, and prosperous society;
d. make Universitas Negeri Surabayaas the center of education and science carrying the noble values of national culture; and
e. produce effective and efficient institutional performance by creating a humanistic academic climate as well as a transparent, accountable, responsive, and fair institutional management to ensure the implementation quality of the *tridharma* of higher education sustainably.

5. Motto

The motto of Universitas Negeri Surabayais 'Growing with Character*'* which can be achieved through '*Idaman Jelita'* character building consisting of '***i****man*' (faith), '*cer****da****s'* (intellegence), '***man****diri'* (independence), '*j**ujur'* (honesty), *'pedu****li***' (caring), and '***ta****ngguh*' (firmness).

B. History of Universitas Negeri Surabaya

The history of the Universitas Negeri Surabaya is related to Institute of Teacher Training and Education Surabaya (Indonesian: *Institut Keguruan dan Ilmu Pendidikan* – IKIP) which was founded around 1950. Earlier, it was begun from B-I and B-II courses majoring in Chemical Sciences and Exact Sciences to ensure the availability of junior and senior high schools. It used classrooms and laboratories belonging to the Dutch Hogere Burgerschool (HBS). Its courses were (a) B-I and B-II Chemistry, (b) B-I and B-II Mathematics (exact science), (c) B-I English, (d) B-I German, (e) B-I Engineering, (f) B-I Physical Education, (g) B-I Economics, (h) B-I Commerce, and (i) B-I Aircraft Science. From 1957 to 1960, the B-I courses had been grouped into: (1) General B-I Courses, covering English and German, and (2) Vocational B-I Course, covering Chemistry, Science, Economics, Commerce, Engineering, Education, Physics, and Aircraft Science. These courses lasted until 1960.

To eliminate the dualism of B-I and B-II courses graduate degrees, in 1960, the B-I and B-II courses were integrated into Faculty of Teacher Training and Education (Indonesian: *Fakultas Keguruan dan Ilmu Pendidikan* or FKIP) to graduate advanced school teachers through the MPRS Decree No. 11/MPRS/1960. In addition, by the Decree of the Minister of Education and Culture Number 6/1961 on February 7, 1961, FKIP Surabaya was changed into FKIP Universitas Airlangga of Surabaya branch.

In 1962, with the establishment of the Teacher Education Academy (Indonesian: *Akademi Pendidikan Guru* – APG), later becoming the Teacher Education Institute (*Institute Pendidikan Guru* – IPG), the dualism re-emerged. In order to deprive the dualism, based on the Presidential Decree Number 1/1963 on January 3, 1963, IPG and FKIP were integrated and became the Institute of Teacher Training and Education (IKIP). On 20 May 1964, due to this integration of FKIP Airlangga University in Malang became IKIP Malang of Surabaya branch. This condition remained until 19 December 1964.

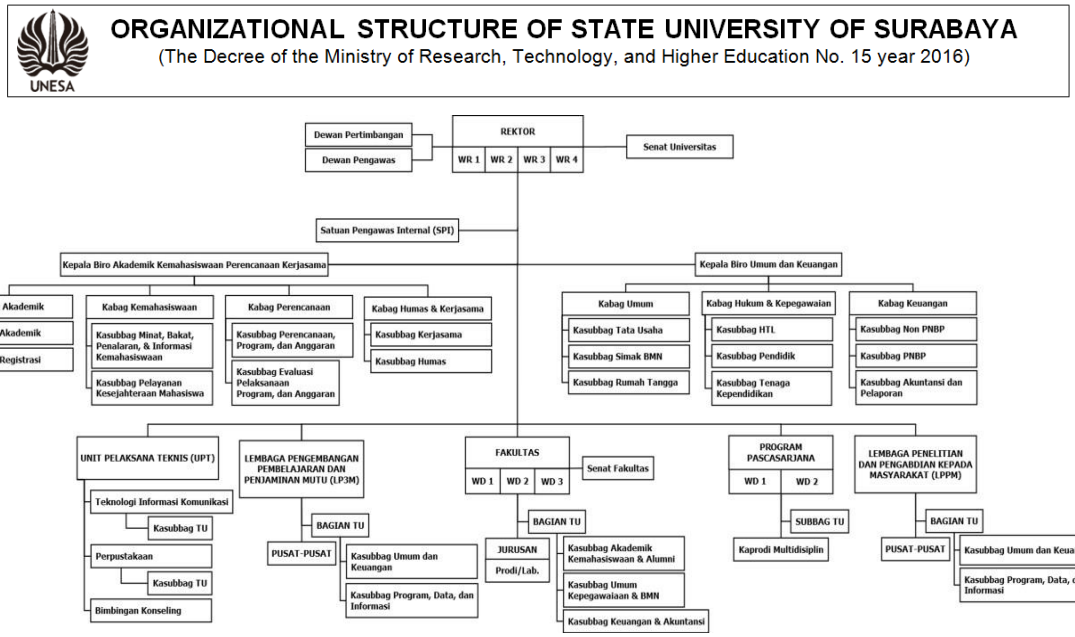
In accordance with the Decree of the Minister of Higher Education and Science No. 182/1964 on 19 December 1964, IKIP Surabaya was officially established with one precidium; the date is commemorated as the anniversary of IKIP Surabaya. From 1964 to 1977, IKIP Surabaya had had five faculties, namely (1) Faculty of Education (FIP), (2) Teaching Faculty of Social Sciences (FKIS), (3) Teaching Faculty of Arts and Literatures (FKSS), (4) Teaching Faculty of Exact Sciences (FKIE), and (5) Teaching Faculty of Engineering (FKIT). On March 1, 1977, in accordance with the Decree of the Ministry of Education and Culture of the Republic of Indonesia No. 042/O/1977 on 22 February 1977, the Sports High School (Indonesian: *Sekolah Tinggi Olahraga* – STO) was integrated into IKIP Surabaya and became sixth faculty of Teaching Faculty of Sports Science (FKIK). Based on the Government Regulation of the Republic of Indonesia No. 27/1981, in 1981, IKIP Surabaya officially had six faculties, namely: (1) Faculty of Education (FIP), (2) Faculty of Language and Arts Education (FPBS), (3) Faculty of Mathematics and Natural Sciences Education (FPMIPA), (4) Faculty of Social Sciences Education (FPIPS), (5) Faculty of

Engineering and Vocational Education (FPTK), and (6) Faculty of Sports and Health Education (FPOK).

In accordance with the Presidential Decree of the Republic of Indonesia No. 93/1999 on August 4, 1999, IKIP Surabaya changed into Universitas Negeri Surabaya (hereinafter called as Unesa) with six faculties and one postgraduate program, namely: (1) Faculty of Education (FIP), (2) Faculty of Languages and Arts (FBS), (3) Faculty of Mathematics and Natural Sciences (FMIPA), (4)) Faculty of Social Sciences (FIS), (5) Faculty of Engineering (FT), and (6) Faculty of Sports Science (FIK) and Postgraduate Program. In 2006, the Faculty of Economics (FE) was officialy established. Since then, Universitas Negeri Surabayaconsists of seven faculties. In 2015, some faculties changed their names, including: Faculty of Social Sciences (FIS) to the Faculty of Social Sciences and Law (FISH), the Faculty of Sports Science (FIK) became the Faculty of Sports Science (FIO). In addition, it acquires an authority to organize both education and non-education programs with the main role as the Educational Institute of Teacher Training (Indonesian: *Lembaga Pendidikan Tenaga Kependidikan* – LPTK).

C. Organizational Structure

The organizational structure of Universitas Negeri Surabaya is established as stipulated in the Regulation of the Ministry of Research, Technology, and Higher Education of Republic of Indonesia No. 15 of 2016 over the Decree of the Minister of Education and Culture No. 279/O/1999. This new organizational structure complies to the change of the university's function as a tertiary institution with the Financial Management and Public Service Agency (PKBLU) system. BLU is an agency within the Government formed to provide services by providing goods and/or services without prioritizing profit in carrying out their activities and emphazising the principles of efficiency and productivity. Unesa's organizational structure as PKBLU is seen in Figure 1 below.



Source: Universitas Negeri Surabaya*Organization Year 2016*

Figure 1 Universitas Negeri SurabayaOrganizational Structure as PKBLU

D. Tasks and Purposes

1. Rector
   The rector is responsible to lead the implementation of education, research and community service, as well as foster all educators, education staff, and students' in relation with the university's environment. Rector is responsible to:
   a. implement and develop higher education;
   b. conduct research in the framework of developing science and technology;
   c. carry out community service;
   d. foster educators, educational staffs, and students;
   e. maintain the relationships of all relevant elements within the environment; and
   f. perform administrative service activities.
2. Vice Rector for Academic Affairs
   Vice Rector for Academic Affairs is responsible to lead the implementation and development of policies in the area of education, research, and community service and coordinate the duties of the heads of working units at Unesa in terms of education, research, and community services based on the applicable laws and regulations in order to meet the university's vision, namely excellent in education and strong in sciences.
3. Vice Rector for Financial and General Affairs
   Vice Rector for Financial and General Affairs is responsible to assist the Rector to implement policies and activities in general administration, finance, and human resources.

4. Vice Rector for Students and Alumni Affairs
   Vice Rector for Students and Alumni Affairs is responsible to assist/represent the Rector to plan and develop university, coordinate students' activities, and students' development activities as well as to cooperate with alumni in accordance with the applicable laws and regulations.
5. Vice Rector for Planning and Cooperation
   Vice Rector for Planning and Cooperation is responsible to coordinate all the planning and cooperation activities as well as design/draw up the annual works.
6. Dean
   The Dean is responsible to lead the implementation of education, research, and community service, as well as foster all lecturers, education staffs, and students relevant with the environment of the faculty.
7. Vice Dean for Academic Affairs
   Vice Dean for Academic Affairs is responsible to assist/represent the Dean in conducting and developing educational policies, researches, and community services in the faculty according to the applicable laws and regulations.
8. Vice Dean for Financial and General Affairs
   Vice Dean for Financial and General Affairs is responsible to assist/represent the Dean in conducting general activities in the Faculty in terms of general administration, finance, and human resources.
9. Vice Dean for Students and Graduates Affairs
   Vice Dean for Students and Alumni Affairs is responsible to assist/represent the Dean in planning and developing the faculty, coordinating students' activities, as well as cooperating with the alumni in accordance with the applicable laws and regulations.

E. Strategic Plans of Universitas Negeri Surabaya

Vision, scope, stages, and timeline of milestones of Universitas Negeri Surabaya are seen in Figure 2.

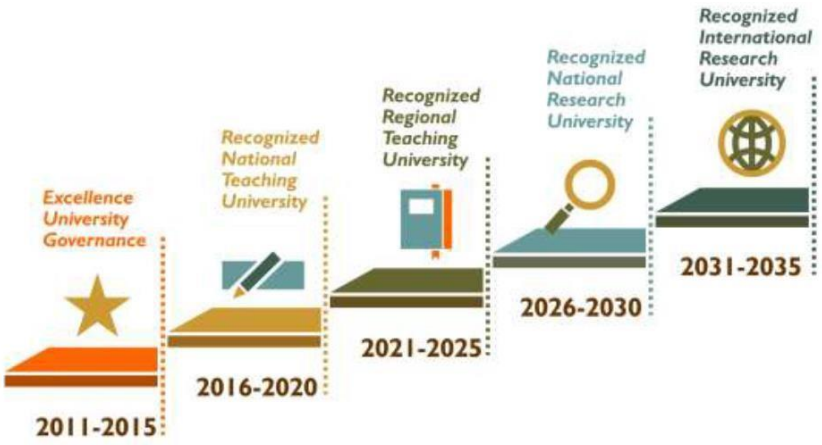


Figure 2 Vision, scope, stages, and attainment time of milestone of Universitas Negeri Surabaya

In terms of the programs on planning, vision, scope, stages, and timing of subsequent achievements are organized and mapped into Unesa's 5-year Strategic Plan (Renstra). This strategic plan is developed annually into operational plans and programs shown in Table 1.

Tabel 1 Strategic Plan of 2016-2020 of Universitas Negeri Surabaya

Ministry's Strategic Plans	Ministry's Targetted Programs	Unesa's Strategic Plans	Indicators	Targets					Information
				2016	2017	2018	2019	2020	
The increase of the quality of learning and student affairs of higher education	The increase of the quality of learning and student affairs of higher education	The increase of the quality of learning and student affairs of Unesa	Affirmation ratio	20%	20%	20%	20%	20%	Nominal
			Percentage of study programs with "B" accreditation	80%	85%	90%	95%	95%	Commulative
			Percentage of alumni who earn direct first job relevant with the majors	30%	35%	40%	50%	60%	Commulative
			Percentage of graduates with profession and competence certification	2%	5%	10%	15%	25%	Commulative

			Number of students with entrepreneurship	75	100	125	150	200	Nominal
			Number of students' achievement	50	75	100	150	200	Nominal
			Percentage of on-time graduates	30%	35%	40%	45%	50%	Nominal
			Average of length of study of undergraduate students	4.5 years	4.3 years	4.2 years	4.2 years	4.1 years	Nominal
			Average of graduates' GPA	3.20	3.30	3.35	3.40	3.40	Nominal
			Number of study programs with international accredication	0	0	4	8	12	Commulative
			Student's achievements of scholarship awardee	20%	20%	20%	20%	20%	Nominal
The increase of the quality of science and technology institutions and higher education	The increase of the quality of Science and Technology and Higher Education institutions	The increase of the institutional quality and development of Unesa infrastructure	Unesa's rank at 4ICU (*world rank*)	5,000	4,500	4,300	4,200	4,000	Nominal
			Unesa's national rank	21	21	19	17	15	Nominal
			Unesa's APT (accreditation)	B	A	A	A	A	Nominal
The increase of the relevance, quality and quantity of science and technology and higher education resources	The increase of the relevance, quality and quantity of Science and Technology and Higher Education resources	The increase of the relevance, quality and quantity of Unesa's human resources	Percentage of lecturers with doctoral degree	26%	29%	35%	40%	50%	Cummulative
			Percentage of lecturers with certification	86%	90%	93%	95%	95%	Cummulative
			Ratio of students to lecturers	31:1	31:1	30:1	28:1	25:1	Cummulative
			Percentage of professors	6.10%	6.50%	7%	8%	9%	Cummulative
			Percentage of associate professors	36%	37%	40%	45%	50%	Cummulative
			Percentage of academic staffs with certification	2%	5%	10%	15%	25%	Cummulative
The increase of research and development relevance and productivity	The increase of research and development relevance and productivity	The increase of research and development relevance and productivity	Total of international publication	40	50	200	350	500	Nominal
			Total of national publication	75	100	150	200	300	Nominal
			Total of intellectual copyrights	100	100	100	100	100	Nominal
			Total of academic citation	200	15,000	20,000	25,000	30,000	Nominal
			Total of prototype of R & D	10	25	25	25	25	Nominal
			Total of industrial prototype	1	1	3	4	5	Nominal
Stronger capacity of innovation	Stronger capacity of innovation	Stronger capacity of innovation	Total of products of innocation	1	3	10	15	20	Nominal
	The increase of performance and accountability of State finances in organizational units at the Ministry of Research, Technology and Higher Education	The realization of good governance and excellent service quality	Opinion for the assessment of financial statements by public auditors	Excellent	Excellent	Excellent	Excellent	Excellent	Nominal
	The realization of good governance and high quality of service and support to all echelon I units and Task Force in Ministry of Research, Technology and Higher Education		The ratio of PNBP revenue to operating costs	59%	62%	65%	66%	67%	Nominal
			Total BLU income (billions)	221,34	255,34	274,81	296	316,12	Nominal
			Total BLU revenues from asset management (billions)	2,806.59	2,956.59	3,193.12	3,448.56	3,724.45	Nominal

CHAPTER II
CURRICULUM

A. Program Structure

1. Stage/Level
   Unesa manages two programs, namely: education and non-education programs. Education and non-education programs consist of Undergraduate (Bachelor degree), Applied Bachelor (D-IV), Professional Education, and Postgraduate ((Master's Degree and Doctoral Degree).

2. Study Load and Period
   In accordance with the Regulation of the Ministry of Research, Technology, and Higher Education No. 44 of 2015 (SNPT), Unesa implements a student with study load in credits (semester credit units), as following:
   a. Study Load for Undergraduate (Bachelor degree) and Applied Bachelor (D-IV)
      The study load for the Bachelor's and Applied Bachelor (D-IV) is minimum of 144 (one hundred and forty-four) credits and maximum of 160 (one hundred and sixty) credits in 8 (eight) semesters or 4 years or a maximum of 14 (fourteen) semesters or 7 years. The changing from Diploma into Applied bachelor (D-IV) is in accordance with the mandate of the Director General of Sciences, Technology and Higher Education Institution of the Ministry of Research, Technology, and Higher Education No. B/185/C.Ca/KB.01.00/2019
   b. Professional Education Study Load
      The study load for Professional Education is minimum of 24 (twenty-four) credits and maximum of 40 (forty) credits in 2 (two) semesters and maximum of 6 (six) semesters after completing the Applied Bachelor/Bachelor's program.
   c. Postgraduate Program (Master's Degree) Study Load
      The study load for the Master's program is at least 36 (thirty-six) credits with the maximum study period of 4 (four) years or 8 (eight) semesters after completing the Applied Bachelor or Bachelor's Degree.
   d. Postgraduate Program (Doctoral Degree) Study Load
      Doctoral Program study load is minimum of 42 (forty-two) credits with the study period of a maximum of 7 (seven) years or 14 (fourteen) semesters.

B. Curriculum

1. Curriculum
   The curriculum is a set of plans and arrangements regarding the objectives, content, and learning materials as well as the methods used as guidelines to achieve the goals of certain study programs. Unesa's curriculum is built from the curriculum of study programs at Unesa containing its vision, mission, goals, and purposes of the respected study program, learning outcomes, curriculum structure and maps, as well as course descriptions according to the type and level of education.
   The curriculum applied to each study program at Unesa is an experienced-based design to develop student's abilities according to the competency level of degree referring to the related National Qualification Framework of Indonesia (KKNI), the National Standards of Higher Education (SNPT), and the characteristics of the related study program compared to similar programs in other universities to ensure the quality of Unesa graduates. Unesa's curriculum is unique for each study program; it is specified according to each educational goals and competencies achieved of the graduates. The curriculum contains four main elements, namely: content, teaching-learning strategy, assessment processes, and evaluation processes. The assessment process is primarily aimed at the lecture context, while the evaluation process is an evaluation of the curriculum itself.
   Competence is a set of smart and responsible actions owened by a person as a condition for being considered capable by society in carrying out tasks in certain fields of work. Competence is a harmonious blend of mastery in the realm of attitudes, knowledge, and skills. Furthermore, these all are manifested into a study program curriculum consisting the planning to achieve these expected competencies.
   Unesa's curriculum is organized based on:
   a. Law of the Republic of Indonesia No. 20 of 2003 on National Education System.
   b. Law of the Republic of Indonesia No. 12 of 2012 on Higher Education.
   c. Presidential Regulation of the Republic of Indonesia No. 08 of 2012 on Indonesian National Qualifications Framework.
   d. Government Regulation of the Republic of Indonesia No. 32 of 2013 on the changes to Government Regulations of the Republic of Indonesia No. 19 of 2005 on National Education Standards.
   e. Regulation of the Ministry of Research, Technology, and Higher Education No. 44 of 2015 on National Higher Education Standards.
   f. Regulation of the Ministry of Research, Technology, and Higher Education No. 13 of 2015 on the Strategic Plan of the Ministry of Research, Technology, and Higher Education year 2015-2019.
   g. Statute of Universitas Negeri Surabaya.
   h. 5-yearly Strategic Plan of Universitas Negeri Surabaya year 2016-2020.
   i. Academic Text of 2015 of Unesa Study Program Curriculum Development Guidelines.

2. Curriculum Principles
   Unesa's curriculum is guided by the following basic principles:

   a. Relevance
      The developed curriculum must have a relationship between disciplinary/content and the social needs as graduate users. The linkage means that the curriculum is developed not only to meet the needs of users / markets but also the implementation of an in-depth study of the fields of science being developed.

   b. Flexibility
      The developed curriculum has flexibility to be implemented. This curriculum implementation refers to the working areas of the graduates. Sometimes, where there are requirements needed to implement a theoretical study, the curriculum has to be capable in carrying the principle of flexibility. Therefore, the ideal conditions of the demands in the scientific field can be adjusted into the empirical conditions.

   c. Continuity
      The developed curriculum has the principle of continuity on every scientific discipline. It is necessary so that the curriculum shows its linkage and interconnection to one-another and does not appear centered.

   d. Efficiency
      The developed curriculum needs to pay attention to aspects of meritocracy to obtain effectiveness in the system as a whole. Efficiency is obtained through the use of time, effort, cost, and other resources to achieve optimal results in accordance with the objectives.

   e. Effectiveness
      The developed curriculum needs to pay close attention to goals in an effort by utilizing/managing the right processes and resources to achieve optimal results in accordance with the objectives.

3. Curriculum Organization
   Nationally-determined curriculum in Unesa's curriculum must be programmed by all students of undergraduate and applied bachelor and included in Core Personality Development courses, namely:

   a. Religion;
   b. Pancasila;
   c. Citizenship Education; and
   d. Bahasa Indonesia.

4. Institutionally-determined courses are courses showing university's characteristic courses and applied to all Unesa's students at a certain level. Subject courses are grouped into four groups, namely:
   a. The Institutional Personality Development course (MPK) consist of English, Basic Socio-Cultural Sciences (ISBD)/Basic Natural Sciences (IAD), Entrepreneurship, Digital Literacy, Sports and Physical Education, Basic Education*, and Psychology in Education*.
   b. Subject Matter and Skills courses (MKK) consist of compulsory courses and elective courses.
   c. Basic Skills courses (MDK) consist of Research Methodology, Statistics, Philosophy, Philosophy of Education*, Learning Theories*, School Curriculum*, Innovative Learning Plan*, Learning Media*, and Learning Evaluation*.
   d. Working Skills courses (MKB) consists of Thesis, Internship/Apprenticeship, Micro Learning*, Teaching Practice I*, Teaching Practice II*.
   e. Working Experience course (MBB) is community service (KKN).
   *Note: * only for education study program*

5. The courses set by the faculty shows the faculty characteristics and applied to all students in that respected faculty. Subjects determined by the study program are subjects related to the academic competences of the main study (content knowledge) and working behavior according to the level of each study program.

6. Structure and Description of Courses (see attachment).

C. Standards of Learning process

1. Education Implementation System

a. Semester Credit System

1) Definition

a) Credit System
The semester credit system is an educational administration system using semester credit units (credits) to state student's study load, teaching workload, learning experience, and program implementation load.

b) Semester
Semester is the smallest unit period used to define the length of learning process in an education level. One semester is equivalent to learning activities for 16 (sixteen) weeks and includes final semester examinations.

c) Credit Units
Credit Units, hereinafter abbreviated as credits, is a measure of time for learning activities done by students per week per semester in the learning process through various forms of learning or the amount of recognition for the success of students' efforts in participating in curricular activities in a study program.

d) Across Faculties/Study Programs Courses
Students may take several courses that are parts of their study load at other faculties/study programs as long

as they have the same credit units and course code. Course scores across faculties/study programs are recognized in student transcripts.

2) Purposes
   a) General Purpose
      The general purpose of implementing the National Qualification Framework of Indonesia (KKNI) with the semester credit system at Unesa is to present educational programs emphasizing an interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative and student-centered learning process so students can achieve certain professional levels from the program selected according to his interests, talents and job demands.
   b) Specific Purposes
      Specific purpose is to implement semester credits system as to:
      (1) provide opportunities for competent and active students to complete their studies in the shortest time possible through compulsory curricular activities which are carried out systematically and structurally through various courses and with a measurable learning load;
      (2) provide opportunities for students to be able to take courses according to their interests, talents, and abilities;
      (3) provide opportunities for education with multiple input and output systems to be implemented;
      (4) facilitate the adjustment of the curriculum from time to time with developments in science and technology;
      (5) provide assurance that the system for evaluating student learning progress can be carried out as well as possible in accordance with the scientific characteristics of the study program;
      (6) provide opportunities for transferring credit between study programs and transferring student credit from other universities to Unesa or vice versa.

3) Characteristics of the Credit Semester System
   Basic characteristics of the semester credit system of the undergraduate program are:
   a) Student's learning load is stated in the amount of semester credit units (credits);
   b) One credit is equivalent to 170 (one hundred and seventy) minutes of learning activities per week per semester;
   c) Each course has a weight of at least 1 (one) credit;
   d) The credit load for each course is not the same (depending on the scope of the material, the level of breadth and depth);
   e) The study load of applied undergraduate students is designed according to the learning outcomes for each proposed program (CP Diploma Two (D-II), CP Diploma Three (D-III), and Applied Bachelor Program CP) referring to the multi-entry system exit. Credit load is designed with a theory ratio of 40% to 60% practice.

b. Credit Score

1) Credit Score for Student Study Load
   The basis for taking credits is determined by the previous semester's Grade Point Average (GPA). Normal student's learning load is 8 (eight) hours per day or 48 (forty-eight) hours per week, equivalent to 18 (eighteen) credits per semester, up to 9 (nine) hours per day or 54 (fifty-four) hours per week is equivalent to 20 (twenty) credits per semester. Meanwhile, the study load of high academic achievement students after one semester in the first year can be added up to 64 (sixty-four) hours per week, which is equivalent to 24 (twenty-four) credits per semester. Provisions regarding taking the number of credits in one semester are set out in the attachment section of this manual.

2) Credit Score for Learning Activities
   a) Credit Score for Lectures/Responses/Tutorials.
      Lectures are face-to-face activities carried out between lecturers and students on a scheduled basis at a predetermined place. For lectures/responses/tutorials learning, the credit score is determined based on the activity load which includes all three kinds of activities per week.
      One credit is equal to:
      (1) have face-to-face learning activities for 50 (fifty) minutes per week;
      (2) have learning activities with structured assignments of 60 (sixty) minutes per week per semester;
      (3) do self-study / independent activities 60 (sixty) minutes per week per semester. Structured independent assignments are learning activities in the form of deepening material for students to achieve certain competencies that are designed and the completion time is determined by the lecturer.
   b) Credit Score for Seminar or Other Forms of Learning.
      Seminars are scientific meetings related to courses held by students under the guidance of the lecturers concerned.
      (1) Face-to-face learning activities of 110 (one hundred and ten) minutes per week per semester; and
      (2) Self-study activities 60 (sixty) minutes per week per semester.
   c) Semester Credit value, in forms of practicum learning, studio practice, workshop practice, field practice, research, community service, and/or other similar forms of learning, is 1 (one) credit equivalent to 170 (one hundred and seventy) minutes per week per semester.
      Practicum is learning that is carried out in a certain place and students play an active role in solving the rubric / problem given through the use of certain tools, materials, and methods.

c. Credit Distribution
   The structure of the undergraduate curriculum consists of a core curriculum (about 85% of the total credits must be taken by students) and a selective curriculum (15% of the total credits must be taken by students), with institutional

courses for education undergraduate as large as 14% of the total credits of the undergraduate program curriculum, and 11% for non-education undergraduate. Credit distribution for the D-IV level will be contained in separate guidelines.

d. Credit Acknowledgement
Students who take part in student exchanges from and to universities/other institutions both nationally and internationally through cooperation programs conducted by Unesa with these universities/institutions, can be recognized for the value obtained and the weight of their credits after obtaining approval from the study program. The mechanism that needs to be passed is that the students should submit applications for credit recognition of courses that have been taken at other universities (PT) to the Study Program, then the study program verifies to determine credit courses that have linearity with the courses in the Study Program curriculum. The Study Program submits a letter of application for credit processing of verified subjects to the faculty. The faculty proceeds the application to Vice Rector for Academic Affairs with copies of the Head of the Academic Bureau of Student Affairs Planning and Cooperation (BAKPK) and the Head of the Center for Technology and Information Development (PPTI) Unesa. In order for the credits converted to SIAKADU Unesa (university's integrated online academic system), students still have to program the linear courses (which are determined by the head of the study program).

2. Implementation of Lecturing System

a. Learning Methods
1) The learning method is adjusted to the characteristics of the course to achieve certain specified abilities. Methods that can be selected for the implementation of learning include: group discussions, simulations, case studies, collaborative learning, cooperative learning, project-based learning, problem-based learning, or other learning methods that effectively facilitate graduate learning outcomes.
2) Each subject may use one or a combination of several learning methods in a form of learning. These forms of learning can be in the form of lectures, v-learning, blended learning, responses and tutorials, seminars and practicum, studio practice, workshop practice, or field practice.

b. Course Provisions
1) Students who are allowed to take part in lectures / learning are students whose names are listed in SIAKADU and have been approved by the Student Advisory Lecturer (DPM).
2) Lectures are held face-to-face, structured, independent, and or online for those who organize vi-learning. The implementation of vi-learning lectures is a maximum of 4 (four) meetings.
3) One semester lecture is equivalent to 16 (sixteen) weeks of learning activities including UTS and UAS. In the academic calendar there is a schedule of 16 (sixteen) weeks of meeting, which is divided into 14 (fourteen) weeks for lectures, 1 (one) week for UTS, and 1 (one) week for UAS.
4) Subject lecturers are responsible for generating grades in Siakadu by first validating the Mid-Semester Examination (UTS) and Final Semester (UAS) questions to the coordinator of the field of study and obtaining legality from the Quality Assurance Unit (UPM) then uploading them each lecturer who teaches courses to Siakadu Unesa.
5) Students may take institutional courses that are included in the MKWU and MKWI courses across faculties with applicable regulations. The programming technique follows the schedule at the intended faculty with the condition that it gets approval from the DPM of the student concerned and the Deputy Dean for Academic Affairs of the intended faculty.

3. Teaching Practice Program (TPP)
Teaching practice program is "the process of observation and apprenticeship carried out by students of the Bachelor of Education study program considering the learning and management of education in educational units (Permenristekdikti, 2017: 4)". TPP is a compulsory subject for undergraduate students majoring on education study
program with a load of 4 credits and implemented in 7th semester. This program is expected to make students capable in implementing (1) curriculum development and learning in the subject areas creatively and innovatively; (2) lesson planning; (3) learning activity; (4) assessment of learning processes and outcomes; (5) character strengthening education in the form of school literacy programs; and (6) the development of social and personality competences of students (see further Guidelines for Teaching Practice published by Unesa, 2019).

4. Internship
Internship is the process of activities and/or apprenticeship in institutions/companies carried out by students of the Non-Education and Applied Bachelor Programs. Internship is a compulsory course for students of the Non-Education Undergraduate Program and the Applied Bachelor Program and is aimed to make students having the ability to professionally solve problems in their field of competence in the world of work, with the knowledge gained during college.

a. Internship for Non-Education Undergraduate Program
Through intership, students are expected to: (1) develop their abilities obtained on campus to be applied/practiced in the working world; (2) to gain new knowledge in the working world; and (3) establish a relationship with the internship provider. Internships include the stages (1) planning, (2) location surveys, (3) implementation, (4) monitoring and evaluation, (5) final reporting, and (6) assessment (see internship Guidelines in each faculty).

b. Internship for Applied Bachelor Program
Through intership, students are expected to: (1) know or understand the needs of work in practical workplaces; (2) adjust (prepare) themselves in facing the work environment after completing their studies; (3) know or observe firsthand the use or role of applied technology in practical workplaces; (4) present the results obtained during practical work in the form of street vendors reports; and (5) as expected from the data data obtained from the field, students may develop it into a final project. Internship is expected to be carried out in organizations or agencies or companies that utilize the technology taught at Unesa, so that students may understand work procedures and analyze problems

so that they can design appropriate systems and applications.

5. Community Services (CS)

a. Community Service (CS) is an intracurricular activity carried out in an integrated manner between education and community service through the placement of interdisciplinary students in an area.

b. The purpose of Community Services is to equip students with the following abilities:
   1) help solving the development and social problems, so that they have maturity in thinking, are skilled in implementing community empowerment programs with a science and technology approach;
   2) make decisions based on collective deliberations in solving real and factual problems in the field of community empowerment;
   3) responsible for planning, implementing, evaluating, and reporting program implementation;
   4) mingle, cooperate, and learn with the community as a form of the Tri Darma of Higher Education.

c. Precondition
   Prerequisites condition to participate community services:
   1) program community service courses;
   2) have taken a minimum of 80 (eighty) credits with a minimum GPA of 2.00;
   3) attach a photo copy of KRS in accordance with the original and have been legalized;
   4) include a Health Certificate from a doctor;
   5) fill in the biodata accompanied by a 4 x 6 cm (two sheets) photo, taped to the top right corner;
   6) take part in Education and Training at the Unesa Surabaya Campus.

d. Community Service Location
   Community Service location is prioritized in the village, but can also be done in urban areas. The location is selected through surveying and validating data from information obtained through government officials who needed Community services, and prioritized the community in the Unesa LPPM target area.

e. Community Service Period
   Community service is carried out between even and odd semesters (the activity schedule will be further informed by the KKN Center).

f. KKN registration is done through SIM-KKN.

6. Undergraduate Thesis

a. Academic Requirement
   Students programming the thesis must meet the following academic requirements:
   1) has accumulated a semester credit unit of at least 100 (one hundred) credits;
   2) has passed the Research Methodology course (and statistics for certain study programs) with a minimum score of C;
   3) have a minimum GPA of 2.50;
   4) some specific requirements can be formulated by each study program.

b. Administrative Requirement
   Students who program their thesis must meet the following administrative requirements.
   1) registered as an active student of Unesa;
   2) programming the Thesis course.

c. Undergraduate Thesis Proposal Preparation and Submission Process
   1) Proposal Preparation
      Writing a thesis proposal is an important first step in the thesis preparation process. This proposal contains a research plan defining the concrete and clear picture of the direction, goals, and final results to be achieved in the thesis research. A research can be done well if it is based on a proposal designed in accordance with the research principles.

   2) Proposal Submission
      Students who have programmed a thesis should submit a topic to the head of the study program (*Kaprodi*) to get a thesis supervisor relevant with their field of focus of the study. Furthermore, the head of the study program should determine the student's thesis supervisor whom should be proposed to the faculty to get the Dean's Decree. After the supervisor is determined and all administrative requirements are met, students get a thesis guidance record from the study program.

   3) Proposal Seminar
      Proposals that have been approved by the supervisor can be submitted to the study program for the seminar, provided that the submitting student has attended the other student thesis proposal seminar at least 5 (five) times. The seminar should be attended by supervisors and examiners as well as other students to obtain input and feedback on improving their research proposals. In the seminar, students have to present their research proposal and answer questions from the examiners and seminar participants. The examining lecturers will provide an assessment of the feasibility of the proposal. If the proposal is considered inappropriate, students have to improve their proposals or submit a new proposal, while the proposals that are considered feasible and have revisions, then the student is obliged to correct and revise their proposals according to the input provided. After the proposal is revised and signed by the supervisors and examiners, the proposal should be submitted to the study program. Furthermore, the head of the department proposes to the faculty to issue the Dean's Decree.

d. Undergraduate Thesis Supervision Process

1) Advisor Requirement
The thesis supervisor requirements are adjusted to the regulations concerning the authority of academic personnel as regulated by the Regulation of the Minister of State Apparatus Empowerment and the regulations applicable in Unesa and adapted to the workforce conditions of the Study Program concerned, and taking into account the ability, profession, and expertise.

2) Supervision Period
   a) Thesis supervision starts when the students program to pass exams and thesis revision.
   b) If the thesis is ready to be examined, students are able to register themselves as participants in the thesis examination. If he has not been able to complete his thesis within one semester, the students will be given the opportunity to finish it in the following semester on the condition that they have met the administrative requirements at Unesa.

3) Supervision Record
Thesis guidance is carried out individually, structured, scheduled, and documented. For this purpose, a supervision record is provided which needs to be filled in by the student, signed by the supervisor to monitor the progress of the student's thesis. If it is counted that up to two semesters the thesis is not completed, the study program has the right to replace the supervisory lecturer if needed. The Head of Study Program conducts mapping and monitoring of the progress of the student thesis.

e. Undergraduate Thesis examination

1) Examination Requirement
Students who will take the thesis examination must meet the following requirements:
   a) thesis that will be submitted in the examination must have the approval of the supervisor;
   b) students register themselves to their respective study programs by bringing:
      (1) KRS as a proof of thesis programming;
      (2) the draft or thesis manuscript submitted to each department / study program no later than one week before the period / period of the examination;
      (3) some specific requirements can be formulated by each study program.
      (4) The Head of the Department may perform plagiarism check through a checking team.
      (5) The plagiarism-free certificate signed by the Head of the Department (maximum 25%),
   c) The thesis examination can be held at least 1 (one) month after the thesis proposal seminar is held.
   d) The deadline for the thesis exam is 2 (two) weeks before the determination of the Graduation Determination Letter (SPK).

2) Undergraduate Thesis Examiner
Those who can become thesis examiners are lecturers who meet the criteria in accordance with the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia Number 17 of 2013 concerning Lecturer Functional Position and Credit Score.

3) Thesis Examiner Team
The board of examiners consists of:
   a) Chairperson (not supervisor) acts as Examiner I;
   b) Another examiner (member) acts as Examiner II;
   c) Thesis Advisor (member) acts as Examiner III.

4) Aspects Graded
   a) Content
      (1) Format conformity with Thesis Writing Guidelines.
      (2) Clarity and conciseness of problem formulations, objectives, discussion, and conclusions.
      (3) Update, relevance, and depth of literature review.
      (4) Suitability of research design with the implementation and results of research.
      (5) Language quality.
      (6) Authenticity (originality).

   b) Performance
      (1) Clarity and appearance of presentation.
      (2) Mastery of material and ability to answer questions.

5) Examination and Assessment Procedures
   a) The thesis examiner team jointly tests a student, if one of the examiners cannot attend the thesis examination must be postponed.
   b) The duration of the exam is one to two hours with details:
      (1) Presentation of an outline of the content of the thesis by students 10–15 minutes.
      (2) Verifier questions and answers 15–30 minutes for each examiner.
      (3) Miscellaneous 5–15 minutes.
   c) Thesis content scores (maximum weight 70%) and performance (maximum weight 30%) in the exam are stated as 0–100.
   d) The final thesis test score is obtained by calculating the average value given by the three examiners (one supervisor and two other examiners) and converted into A, A-, B +, B, B-, C +, C, D, or E according to the

rules that apply in Unesa.

e) The difference in assessment between one examiner and another should not be more than 10 (ten). If there is a difference of more than 10 (ten), the head examiner must discuss it with examiners to determine a new score.

6) Determination of Undergraduate Thesis Examination
   a) The determination of the graduation of the thesis examination is carried out by the board of examiners and submitted to students on the day of the examination.
   b) Students are declared to have passed the thesis examination if they get a grade of at least C.
   c) Students who score less than C are given the opportunity to take the retest in the same period.
   d) Students who have passed the thesis examination with revisions must submit the revision maximally
   e) 3 (three) months after the exam is carried out. If they pass the grace period, students are required to take a re-thesis examination.
   f) Thesis improvement must be consulted with the examiner team within a specified period of time by bringing notes from the examiner team received during the thesis examination. After being approved and signed by the examining lecturer, supervisor, department head and dean, the thesis report is bound with the cover according to the color of the respective faculty flag in black writing.
   g) Students publish articles (extracted from thesis) to ISSN journals, international proceedings, or upload theses to higher education repositories which are integrated in the Kemenristekdikti Student Final Project Repository portal (rama.ristekdikti.go.id). Published articles must have gone through a plagiarism check process with a maximum similarity value of 25%.
   h) Students who have scientific publications in ISSN journals or international proceedings other than theses do not need to upload research articles by submitting evidence of links (url) and articles must include Unesa affiliation.
7) Thesis equivalent for outstanding students who pass PIMNAS is regulated in separate guidelines.

7. Final Project (TA)

Final Project (TA) is a final project for the Applied Undergraduate Program which is equivalent to a course with a load of 4 (four) credits. TA is carried out by 1 (one) or several people and is guided by lecturers who have the relevant competence and qualifications. In practice, students observe the process within the scope of the operating system, which provides procedural solutions. TA is a solution to the procedurally wide scope of the process. Students are obliged to make scientific papers with appropriate knowledge and understanding for solving procedural problems. The scientific work is expected to be able to complete the process accurately according to standards. The scope of TA is to use existing standard methods to improve the quality of solving operational problems. TA is also expected to provide suggestions or alternatives to improve the operation process. Another thing that is expected is that TA can be a problem solving on the operation process development. The purpose of making TA is to fulfill the obligation to run the courses that apply to the Applied Undergraduate Program at Unesa. The making of TA is expected to actualize the students' ability to be able to organize the knowledge they have or what they have learned to make themselves as professional experts, according to their specialties in a comprehensive manner).

D. Assessment standard

1. Assessment of Student Learning Outcomes
   a) Assessment Components
      1) Class Participation (P)
         Class participation assessment include:
         a. the presence of students while doing face-to-face, structured and practicum activities, with a maximum score of 60;
         b. frequency and quality of student inquiries;
         c. frequency and quality of student opinions / arguments;
         d. frequency of consultation outside lecture hours (enrichment);
         e. student reasoning creativity.
         (total scores of a, b, c, and d = 40 (forty))
         The participation score is the total scores of a, b, c, d, and e, a maximum of 100 (one hundred).

      2) Assignment (T)
         a. The load of the task should be adjusted with the credit units of the course
         b. The scheduling system should be registered through academic plan (KRS)
         c. The results of the assignment should be marked and graded with feedback to be returned to the students.

      3) Mid Term Exam (UTS)
         a. UTS is scheduled at the 8th (eight) meeting.
         b. UTS is scheduled in the RPS and is known by students from the beginning of lecture.
         c. UTS results that have been assessed and given feedback are returned to students.

      4) Final Term Exam (UAS)
         a. UAS is carried out on a scheduled basis at the end of the semester and is regulated by the Faculty which is carried out with a special schedule and coordinated by the Deputy Dean for Academic Affairs.
         b. The results of the written UAS that have been assessed and given feedback are returned to the students.
         c. UAS can be held if lectures have lasted at least 15 (fifteen) times, including UTS.
         d. Students who are allowed to take the UAS if their attendance is at least 12 (twelve) times face to face and UTS. If the number of student attendance is less than 13 (thirteen) times including UTS, then the student's

name will be blocked in the attendance list of UAS participants in Siakadu.

e. Students who get institutional assignments can be subject to special assessments. This assessment must be accountable academically by referring to the four components of the assessment and obtaining approval from the head of study program/department.

b) Assessment Reference

1) Assessment process and student learning outcomes include: assessment principles, assessment techniques and instruments, assessment mechanisms and procedures, implementation of assessments, reporting of student assessments and graduation.
2) Learning assessment standards are the minimum criteria for assessing student learning processes and outcomes in order to meet graduate learning outcomes.

c) Score Uploading Terms

Lecturer upload students' raw (original) score to SIAKADU consisting: participation (P), assignment (T), mid term exam (UTS), and final exam (UAS) within 0-100 scale.

d) Score (S)

Score is calculated using:

$$S = \frac{(2 \times P) + (3 \times T) + (2 \times UTS) + (3 \times UAS)}{10}$$

e) Score Conversion

Score is conversed from 0–100 into 0–4 and its grade.

Table 2 SCORE CONVERSION

Score Interval	Score	Huruf Grade
85 ≤ A < 100	4	A
80 ≤ A- < 85	3,75	A-
75 ≤ B+ < 80	3,5	B+
70 ≤ B < 75	3	B
65 ≤ B- < 70	2,75	B-
60 ≤ C+ < 65	2,5	C+
55 ≤ C < 60	2	C
40 ≤ D < 55	1	D
0 ≤ E < 40	0	E

f) Learning Outcomes

Achievement of Learning Outcomes is manifested in the form of a Grade Point (GP)
There are two kinds of IP for student learning outcomes, namely semester/ term Grade Point Average (GPA) and cumulative Grade Point Average (GPA).

1) GPA is a semester grade point average.
2) GPA is calculated from the learning outcomes of all the courses programmed in semesters that have been completed.
3) Semester GPA and final GPA is based on all grades of the programmed courses (compulsory and elective), including subjects that score 0 (zero) or E.
4) Determination of final GPA
5) GPA assigned by formula

$$GPA = \frac{\Sigma KN}{\Sigma K}$$

KN = course workloads (credits) x score
K = course workloads (credits)

6) GPA is calculated up to two decimal places

2. Remidial Score

Students are allowed to reprogram courses to improve their grades. The grades listed on the transcript are the best grades. The requirement to reprogram is a course with a **maximum score of D**.

3. Others

a. Students are not allowed to cancel courses that have been programmed.
b. Students who retake courses, study programs must provide courses and course codes according to the student's academic year guidelines.

BAB III
ACADEMIC NORMS

A. New Students Admission

New Unesa students admissions are carried out by following the rules set by the Ministry of Research, Technology and Higher Education as well as Unesa's internal regulations. Admission of new students is carried out through various selection channels both at the national and university levels.

1. New Student Admissions for SNMPTN
   SNMPTN is an admission pathway for new students held nationally for Undergraduate Study Programs through the selection of academic achievements at the school level (SMA / MA / SMK / MAK)
2. New Student Admissions for SBMPTN
   SBMPTN is an admission route for new students for Undergraduate Study Program which is carried out jointly with other State Universities through computer-based written exams, as well as skills tests for study programs for arts and sports groups.
3. New Student Admissions for the SPMB
   SPMB is the independent admission of new undergraduate and diploma students regulated by Unesa. This admission consists of
   a. regular;
   b. achievements, such as religious achievements, sports achievements, arts achievements, and achievements of persons with disabilities;
   c. diploma admission.
4. Transferred Undergraduate Program Student
   Transferred undergraduate students are students who graduated from the Diploma program and wish to continue their education at Unesa and have received credit recognition from the intended department/study program. The number of students accepted is adjusted to the capacity and determined through selection.
   a. Transfer program is held in the even semester. The courses that are recognized are determined by the department/program study and the results are submitted to the vice rector for Academic Affairs and legalized by the faculty after the determination of acceptance. Any courses that are recognize with a D or E score must be reprogrammed.
   b. The number of credits (same major) from diploma graduate to undergraduate Education or from non-education diploma/ undergraduate graduate is determined by the range of the number of credits recognized and must be taken according to the provisions as shown in Table 3

Table 3
RANGE OF CREDITS ACKNOWLEDGED AND OBTAINED BY STUDENTS OF DIPLOMA PROGRAMS IN EDUCATION/NON-EDUCATION TO LINEAR UNDERGRADUATE PROGRAM EDUCATION/NON-EDUCATION

Graduate Transferred	∑ Credits Acknowledged	∑ Credits Obtained
Education/Non Education Diploma Program	60 – 120	24 - 100

B. Registration

Every Unesa's student must register. Registration is carried out in order to obtain the validity of student status.

1. Things to be considered by students during registration are:
   a. Registration is compulsory for each student (freshmen, sophomores, juniors, and seniors);
   b. The schedule for registration activities is determined in the academic calendar;
   c. Operational provisions and procedures for the implementation of registration are prepared and announced by Bureau for Academic, Planning, and Cooperation (BAKPK);
   d. Students who fail to register before the due date is declared inactive (N);
   e. Students who do not register cannot carry out academic and non-academic activities, such as: online course admission, advisory, and others;
   f. The maximum number of credits that can be programmed per semester is based on the previous IPK and IPS and a maximum of 24 (twenty four) credits;
   g. The maximum number of credits of students who are active after leaving or inactive status is based on the results of semester studies and the cumulative study results of students before leaving or being inactive.
   h. Changes (additions/subtractions) of courses are made up to the 3rd (third) meeting.

2. Registration Flow
   Registration is carried out through:
   a. Students pay the Single Tuition Fee (UKT) according to a specified schedule;
   b. Students plans courses to be programmed and are ready to fill out academic consulting form online;
   c. Students consult the courses programmed to Academic Advisor. Advisor's approval is marked by approving / clicking "approve" button online at Academic Advisor's siakadu site;
   d. Students must print the approve courses programmed form, sign it, submit to Academic Advisor

3. Tuition Fees (UKT)
   a. Students are required to pay tuition fees according to the Single Tuition Fee (UKT) which is determined based on verification.
   b. The amount of UKT remains valid for students of a generation starting in semester 1 (one) until the student completes his study.
   c. UKT payments are made online at the Bank appointed by Unesa, according to the specified schedule

C. Academic Leave

1. General Terms
   a. Academic leave is a condition when students are registered as Unesa students who are allowed by the university not to participate in academic activities with the consequence of not paying UKT.
   b. The maximum length of leave is 2 (two) semesters during the study period of the student.
   c. Academic leave is carried out per semester and is counted towards the study period and is not carried out in consecutive terms.
   d. Academic leave is not given in semester 1 (one), except for circumstances justified by the university leaders.
   e. Academic leave is also not given at the end of the study period.
   f. Students who are on leave status are not allowed to carry out academic activities (for example: lectures, midterm test, final exam, thesis/final project consultation, industrial internship, teaching internship, community services, and extracurricular activities), student activities, and are not eligible to receive scholarships.
   g. The maximum credits that can be taken are based on the results of semester completed and the results of students' cumulative grade point average before leaving if the student is active again.
   h. If a student has returned from an academic leave, the maximum number of credits that can be taken is based on the results of IPS and IPK prior to academic leave.
   i. Students (academic leave) who will activate their status as Unesa students, are required to show a leave letter to the Finance Department in order to be used for UKT payments.
   j. Students who receive scholarships are not allowed to apply for academic leave.

2. Leave Application Process
   a. Students submit a letter of request for leave to Vice Rector for Academic Affairs through the faculty with the approval of the Academic Advisors and Head of Study Program.
   b. The Head of BAKPK on behalf of Vice Rector for Academic Affairrs issues a certificate of academic leave.

D. Non-Active

1. Students who do not register academically and administratively, and do not apply for academic leave, are declared inactive (N).
2. Non-active students (N) are required to pay UKT in both previous and active semesters

E. Counseling

1. Advisory is a process that is carried out outside of the lecture schedule, through personal contact with a lecturer or a group of students, to help these students achieve optimal learning outcomes (attitudes, knowledge, and skills) according to the time specified.
2. Academic Advisor (DPA)
   Student Advisor is a permanent lecturer who is assigned the task of providing consideration, guidance, advice, and approval to a number of student guidance in academic and non-academic fields..
3. Purpose
   Counseling purposes to help/assist students in term of:
   a. adjusting to campus life;
   b. finding effective learning methods;
   c. overcoming the difficulties associated with study.
4. Obligations of Academic Advisor (DPA)
   a. Guiding a number of students in the academic field with prevention, curation, and persuasion.
   b. Guiding a number of students in non-academic fields in order to support students' hard and soft skills.
   c. Consulting to the Head of the department/study program/faculty in case of unresolved academic concerns.
   d. Carrying out a counsel process at least 3 (three) times a semester and record it online at Siakadu.

e. Validating the Non Academic Assessment System (SIPENA); validation is carried out by checking student activities using SIPENA.
f. Providing a (written) advisory report to the Head of the department/study program at the end of each semester.
g. Providing an opportunity for students to consult directly to faculty counselor.
h. Offering suggestions in order to improve the conseling programs.
i. Approving the online programmed courses at Siakadu. If DPA does not approve it, the student's name will not appear in both attendance and grading list.
j. Monitoring and evaluating the students' learning outcomes, checking the credits programmed and the students' cumulative GPA.
k. Maintaining the confidentiality of the Siakadu password.

5. Students' Obligations
   a. Consult to DPA actively at least 3 (three) times a semester;
   b. Enroll courses online at siakadu within the time frame of online registration;
   c. Obey the advisory results;
   d. Maintain the confidentiality of his/ her own password for online activities;
   e. Request SIPENA validation

F. Counseling Group (GLBK)

1. Counseling groups (GLBK) aims at helping students, both individually and in a group:
   a. To gain an understanding of oneself and the environment in the framework of an *effective daily life*;
   b. To compile and develop academic programs and/or other programs according to one's aspirations, abilities, and environmental conditions;
   c. To develop oneself optimally by selecting student activity units (UKM) by considering self-potential;
   d. To find out and develop useful personal skills in the environment;
   e. To solve and resolve personal, social, study, and career problems and other problems.

2. Main Responsibilities of Counseling Group are to:
   a. To identify student potential both the strengths and weaknesses;
   b. To help overcome problems experienced by students, both personal problems (study, career) and social problems;
   c. To motivate student's positive attitudes and study habits;
   d. To cooperate with student advisor to obtain students information especially whom requires counceling group in order to improve student learning outcomes;
   e. To periodically collaborate with the stakeholders (working-places) to provide motivation and information for career development.

3. Service Procedures
   Students who require the counceling should:
   a. directly come to counseling group unit on weekdays or contact faculty counselor;
   b. show a valid Student ID;
   c. fill out the form provided;
   d. follow the guidance and counseling session.

G. Student Transfer Program

Transfer programs are changes in student status including: administrative, academic status, and others. Student transfer program can be done based on the prior study program and students' capacity. Student transfer program at Unesa are regulated as:

1. General Requirement
   Education program students are not allowed to transfer to non-educational programs and conversely, non-educational students are not allowed to transfer to the Education program.

2. Transfer Program in the Same Faculty
   Transfer programs of study programs in same faculty will be allowed for students who are (at least) in their 3rd (third) semester and there is an available position in the intended study program or with certain considerations, including: students' GPA must be > 2.0; transfer program of the study program recommended by the head of the intended study program aiming to improve students' academic performance; intended study program should have lower student admission (the number of applicants, minimum score of student admission tests, and study program accreditation) or (in another word) to lower level of study program. The procedures of transfer programs are regulated as follows:
   a. Student must submit a written transfer application to the Dean; the transfer application must be approved by academic advisor (DPA) and the Head of the department/study program;
   b. The designated departments/study programs will conduct the test to the student who applies the program;
   c. If the transfer application is accepted, the designated department/study program will convert the courses that have been taken.
   d. Dean issues the acceptance letter of the transfer program;
   e. A copy of the acceptance letter and attachment of courses conversion are sent to BAKPK for administrative process and report (to Rector); and
   f. Intended study program must not be higher than the original study program (considering students accaptance of the study program and its accreditation).

3. Transfer Programs to the Different Faculties
   Transfer programs of the different faculties will be allowed for students who are (at least) in the 3rd (third) semester and there is an available formation (position) at the intended study program in the intended faculty or with certain considerations, students' GPA must be > 2.0; transfer program of the study program recommended by the head of the intended study program aiming to improve students' academic performance; intended study program should have lower student admission (the number of applicants, minimum score of student admission tests, and study program accreditation) or (in another word) to lower level of study program in the intended faculty. The procedures of transfer programs are regulated as follows:
   a. Student must submit a written transfer application to the Rector; the transfer application must be approved by the student advisor (DPM), the head of the department/study program, and the Dean;
   b. Of the transfer application, the Rector will ask the Dean (for the consideration) of the purpose of transfer; similarly the Dean will ask (for the consideration) the head of the related department/study program;
   c. If the transfer program is available, the designated department/study program will conduct the test to the student who applies the program;
   d. If the student pass the test, the designated department/study program will convert the courses that have been taken;
   e. Dean forwards the notification letter to the Rector regarding the process and results;
   f. The Rector issues a decree regarding the transfer program;
   g. A copy of the decision letter is sent to BAKPK..

4. Transfer Program to Other University
   Permission to transfer to other university is given after students complete the financial administration requirements in accordance with the provisions. The procedures of transfer programs are regulated as follows:
   a. Student must submit a written transfer application to the Rector for transfering to other university; this application must be approved by the student advisor (DPM), head of department/study program, and Dean.
   b. The Head of BAKPK on behalf of the Rector issues a transfer approval letter to other university when the student has been admitted to the designated university..

5. Transfer Program to Unesa
   Students who can be accepted (by Unesa) are students from tertiary institutions with an A (Excellence) accreditation and the intended study program must have the same or higher acceditation. Transfer student has attended a minimum of 2 (two) semesters, is registered at the origin university, and has sufficient study period to complete the study in the designated study program. The procedures of transfer programs are regulated as follows:
   a. Prospective students must submit a written transfer application to the Unesa rector and the academic transcript of the home university must be attached.
   b. The Rector forwards the transfer application to the designated Dean and Head of Study Program for consideration.
   c. The designated study program will conduct written, oral, and/or skills tests regarding the program applied including file verification.
   d. If the prospective student is accepted, the Dean submits the results of the acceptance test to the Rector to issue a acceptance letter regarding the academic status.
   e. After being accepted, students must register according to the schedule and applicable regulations.
   f. The Head of Study Program performs course conversion and uploads it on Siakadu.

H. Student Exchange

Universitas Negeri Surabaya has several student exchange programs, including the SEA-Teacher and SEA TVET programs. The SEA-Teacher Program is an exchange program for students majoring in education to conduct teaching internship in ASEAN countries. The main objective of this program is to share teaching and learning experiences in the neighboring countries. Meanwhile, the SEA-TVET program aims to improve or deepen skills relevant to local industries, reduce gaps in communication and culture, work habits, etc. in the Southeast Asia (ASEAN) regions. For further student exchange information, please see the Unesa cooperation page (https: // cooperation.unesa.ac.id/) or you can contact the Office of International Affairs at the 1st Floor of the Rectorate Building, Lidah Wetan Campus, Unesa

I. Scholarship

Universitas Negeri Surabaya offers several scholarship programs to students, nationally and internationally. For the general scholarship, students can look out on the Unesa scholarship page (https://www.unesa.ac.id/archive/scholarship/). For national scholarships, students can contact the Vice Rector for Students Affairs and Alumni at the 7th Floor of the Rectorate Building. For international scholarships, student can contact Office of International Affairs at the 1st Floor of the Rectorate Building, Lidah Wetan Campus, Unesa..

J. Course Cancellation

Courses cancellation can be done in the double courses with different codes (same credit load) in student transcripts.
The course cancellation process is described as follows:
1. Student must submit cancellation application to cancel the double course.
2. Course cancellation application is submitted to the Vice Rector for Academic Affairs.
3. Vice Rector for Academic Affairs forwards the cancellation application to PPTI.
4. The head of PPTI have the PPTI staff to immediately process the course cancellation.
5. PPTI staff cancels intended courses.

K. Intermediate Semester

1. General Terms
   a. Intermediate semester is for students who reprogram their courses.

b. Intermediate semester is a unit of activity consisting of 8-10 weeks of lectures, equivalent to 16 (sixteen) face-to-face meetings or other scheduled activities, including midterm and final exams.
c. Academic activities carried out in the intermediate semester are the same as the academic activities carried out in the odd semester and the even semester.
d. The consideration in conducting intermediate semester is held by the Faculty.
e. The maximum semester credit unit (credits) load that can be taken is 9 (nine) credits.
f. The minimum number of class participants required to be held is 10-15 students.
g. The fee for attending intermediate semester lectures is determined by the Rector.
h. The results of the intermediate course will be administered in the intermediate semester.
i. The intermediate semester is opened 1 (one) week after the uploading grades deadline.
j. The maximum score of courses programmed in the intermediate semester is B+

2. Participants
Students who apply intermediate semester are required to:
a. Previously pogram the selected courses;
b. Register the intermediate semester academically and administratively.

L. Dropouts

1. Dropouts can be submitted by students individually during the study period.
2. Dropouts are assigned to students who:
   a. Have GPA less than 2.00 (< 2.00) and total credits less than 30 (< 30) in 4 (four) semesters;
   b. have been inactive (N) for more than 2 (two) semesters;
   c. have the status on leave (C) for more than 2 (two) semesters.
3. Students who have dropped out are entitled to a certificate of having been to college and given academic transcripts during their study.
4. Students who have finished their study period and have not been able to complete their studies according to the predetermined maximum study period are terminated as Unesa students.

M. Non-Academic Assessment System

SIPENA is a form of achievements recognition of the extracurricular and co-curricular activities as the student study loads and it is administered as the Activity Credit Unit score (SKK) which is accumulated from the extracurricular and co-curricular activities. SKK scores at the end of the study period are stated in the form of Student Activity Transcripts (TKM). SIPENA is a prerequisite for graduation and diploma supplement (SKPI)

SIPENA aims to:

1. Instill a scientific attitude, stimulate creativity and innovation, and develop a dignified character.
2. Improve student skills in team work, communication, management skills, organization and leadership.
3. Increase student involvement and participation in student activities.
4. Provide recognition and appreciation for student activities and achievements.
5. Provide documents accompanied by authentic evidence about all activities and all student achievements that are useful for stakeholders when entering the world of work.

The scope of SIPENA's activities is:

1. Compulsory university activity; freshmen campus orientation (PKKMB).
2. Selected activities in student affairs, such as:
   a. Scientific activities.
   b. Organizational and leadership activities.
   c. Interest, talent, and hobby
   d. Community service activities
   e. Other activities regulated in the guidelines of the Non-Academic Assessment System.

For further information, go to the Single Sign On (SSO) system of Unesa on the https://sso.unesa.ac.id/ page, the Student Affairs section.

N. Graduation Determination

Students are declared as graduated if they meet the following criteria.

1. Able to achieve a minimum GPA of 2.50 by obtaining a minimum score of C for General Compulsory Subjects (MKWU: Religion, Pancasila Education, Civic Education, and Bahasa Indonesia) and no E.
2. The maximum D scores is 5% of all credits achieved in the Institutional Compulsory Courses (MKWI) and courses at the faculty/department/study program level..

Provisions for determining graduation are:

1. having the status of an active student;
2. filling out the online graduation registration form in accordance with applicable regulations;
3. submitting a printed thesis or final project (hard copy) along with a soft copy signed by the examiner lecturer, the Head of the Department, and the Dean;
4. submitting the completed graduation registration form and academic transcripts;
5. submitting a photocopy of the TEP/TOEFL ITP certificate with a minimum score of 425 (legalized by the Unesa Language Center); for students of the Department of English Language and Literature, minimum score obtained is 525.

O. Graduation Registration

Graduation is a ceremonial event to determine student graduation from a level of education at the faculty level. Graduates are stated with a predicate determined by their the Grade Point Average (GPA).

1. Graduation
   a. The graduation is adjusted to the academic calendar and is determined based on the Dean.
   b. The implementation of the graduation is regulated by the faculty under Unesa's management.
   c. Graduation documents are sent to BAKPK for degree completion of both academic and non-academic transcripts.

2. Registration Requirement
   To apply the graduation ceremony, students are required to:
   a. Submit the graduation registration form to the faculty
   b. Submit a photocopy of the Study Completion (SPK) to the faculty.
   c. Show original receipt for Graduation fee and submit a receipt copy.
   d. Submit 6 (six) newest black and white photos on a white background size 4 x 6 (male: wearing alma mater coat, white shirt, tie, and no glasses;. female: wearing alma mater coat, white shirt, no tie, and no glasses).
   e. Submit the certificate of TEP/TOEFL ITP with a minimum score of 425 (all study programs) and 525 (English department) which is legalized by the Unesa Language Center.

3. Graduation Predicate
   In accordance with the National Higher Education Standards, the graduation predicates are:
   a. GPA = 2.00 s.d. 2.75 : Satisfactory
   b. GPA = 2.76 s.d. 3.50 : Very Satisfactory
   c. GPA = 3.51 s.d. 4.00 : Cum Laude
   Determining graduation predicate is:
   * For undergraduate and applied bachelor program, the study period must be a maximum of 4 (four) years or 8 (eight) semesters.
   **) The provision does not apply to transfer program students*.

P. Graduation

Graduation is carried out according to the rules established by Unesa.
Graduation is held at least 3 (three) times in one academic year (through quota). The requirements for attending Graduation are as follows:
1. Students have been declared 'graduated' by the Dean through Graduation Letter and have names listed the graduation list;
2. Students have met the administrative and financial requirements set by Vice Rector for Academic Affairs

Q. Certificate

1. Limitation
   The Unesa certificate is an certificate given to Unesa graduates according to the level of education taken. Unesa certificates are determined in accordance with the Decree of the Minister of Education and Culture of the Republic of Indonesia No. 81/2014 on Diplomas, Competency Certificates, and Higher Education Professional Certificates.
   Unesa certificates have special characteristics, namely regarding the type of paper, size, and security marks which are stated in the Decree of the Unesa Rector No. 071/K08/HK.01.23/PP.00.01/2000 on Regulations of Teaching Diplomas and Graduates Certificates for Diploma and Undergraduate at Unesa which has been valid since the even Semester 1998/1999.

2. Academic Transcript
   Academic transcripts are an integral part of the Unesa certificate.
   a. Academic transcript and graduation certificate are issued by BAKPK.
   b. Academic transcripts are issued according to data provided by the faculty in the graduation form.
   c. Academic transcript format is regulated by Unesa
   d. Academic transcript has data on students, faculties, study programs, GPA, thesis titles, number of credits, and the score of each course programmed by students.
   e. Academic transcript is written in two languages, namely Indonesian and English
   f. Unesa's academic transcript is signed by the Head of BAKPK.
   g. Copy of academic transcript is validated by the Head of BAKPK.

3. Graduation Statement (SKPI)
   Diploma Supplement (SKPI) is a document consisting information on students achievements of study programs or qualifications of higher education graduates.
   a. SKPI contains student data, graduate learning outcomes, KKNI level, admission requirements, language of instruction, assessment system, and length of study.
   b. SKPI is written in two languages, namely Indonesian and English.
   c. SKPI is signed by the Dean.
   d. SKPI's copy is validated and signed by the Dean.

R. Title

1. Academic titles and professional titles for Unesa graduates are given in accordance with the Decree of the Minister of Education and Culture of the Republic of Indonesia No. 178/U/2001 on 21 November 2001 on College Graduates and Designations.
2. Unesa awards academic titles to its graduates.
3. Professional title is the name given to Unesa graduates undertaking diploma program.
4. Academic titles are used for both academic and skills expertised for undergraduate in the form of an abbreviation and entitled after the graduates' name.
   The academic title and its abbreviation is seen in the table below..

Table 4 ACADEMIC TITLE AND ABBREVIATIONS

Study Program Group	Academic Title	Abbreviations
1. Literature	Bachelor of Literature	B.Lit.
2. Mathematics	Bachelor of Mathematics	B.Math.
3. Science	Bachelor of Sciences	B.Sc.
4. Education	Bachelor of Education	B.Ed.
5. Sport Science	Bachelor of Sport Science	B.A
6. Sociology	Bachelor of Sociology/Bachelor of Social Science	B.A
7. Psychology	Bachelor of Psychology	B.A.
8. Law	Bachelor of Laws	LL.B
9. Engineering (Related to its)	Bachelor of Engineering	B.Eng.
10. State Administration	Bachelor of Social Science	B.A.
11. Communication	Bachelor of Communication Science	B.A.
12. Islamic Economics	Bachelor in Islamic Economics	B.Ec.
13. Accounting	Bachelor of Accountancy	B.Acc.
14. Management	Bachelor of Management	B.A.
15. Visual Communication Design	Bachelor of Design	B.F.A.
16. Music	Bachelor of Arts in Music	B.F.A.
17. Arts	Bachelor of Arts	B.F.A.
18. Engineering Informatics	Bachelor of Engineering	B.Eng.
19. Informatics	Bachelor of Engineering	B.Eng.
20. Economics	Bachelor of Economics	B.Ec.
21. Nutrition	Bachelor of Nutrition Science	B.A.

S. Graduation Statement

Diploma Supplement (SKPI) is a document consisting information on students' achievements of study programs or qualifications of higher education graduates.

1. SKPI contains student data, graduate learning outcomes, KKNI level, admission requirements, language of instruction, assessment system, and length of study.
2. SKPI is written in two languages, namely Indonesian and English.
3. SKPI is signed by the Dean.
4. SKPI's copy is validated and signed by the Dean

T. Awards

1. Students who have taken 2 (two) semesters and have academic achievements are given the opportunity to get a scholarship. Other requirements are based on the applicable provisions.
2. Students have the opportunity to become Outstanding Students if meeting the requirements/criteria set by the Student Achievement Assessment Team.
3. Students determined as the best graduates at the graduation ceremony are those who graduate with the highest GPA and in the shortest period of study.
4. Awards for national and international outstanding students are regulated by the Rector's Regulation.

U. Academic Ethic

Academic ethics is formulated with the aim of maintaining the quality of educational outcomes and providing sanctions for students who violate existing regulations.

1. Students who cheat on exams (cheating, distributing answers to other students, etc.) and do academic plagiarism are directly failed and scored "E" in the course.
2. Students who falsify lecturers' signatures or administrative activities related to the process of implementing education, the scores obtained in all courses programmed in the current semester are directly failed and scored "E".
3. Students who falsify the graduation requirement letter are postponed in the current semester.
4. The violations of academic ethics are regulated in the Academic Ethics Guidelines.
5. According to the learning outcomes, graded sanctions are set as shown in Table 5

Table 5 TOTAL CREDITS TAKEN AND FORMS OF ACADEMIC SANCTIONS

Education Program	End of Semester	Total credit passing*)		
		Normal	which must be considered	
			Critical	Academic Sanction
Undergraduate	I	18	≤ 9	
or/and	II	36	≤ 18	Written notice I
Diploma Program	III	54	≤ 30	Writen notice II
	IV	72	≤ 40	**Announced as Drop-out Student**
	V	90	≤ 50	
	VI	108	≤ 60	
	VII	126	≤ 70	
	VIII	144	≤ 80	

*)Total credit taken is total credit of all subject courses with minimum score 2,00 (C), described as:

a. DPA at the end of each semester is required to make a report on the progress of student studies that do not reach the minimum number of credits to the head of the department/study program.
b. Written Notice I is issued by the Head of the department acknowledged by the Dean and mailed to the students' parents/guardian and attached its copy to the Faculty/Department counsel.
c. Written Notice II is issued by the Head of the department acknowledged by the Dean and mailed to the students' parents/guardian and attached its copy to the Faculty/Department counsel.
d. If at the end of semester 3 (three), total credits obtained is less than 30 (thirty), the head of the department submits a letter of proposal to the Dean for further process.

Based on PLO (containing four aspects, namely knowledge, skills, competencies, and social attitudes), UPME then determines what study materials should be raised so that students can achieve each of these PLOs. In determining study materials, UPME refers to several standards, namely KKNI, NCTM, OBE, Curriculum of 2013, Cambridge Curriculum, and IndoMS. The study materials identified are divided into three major groups, namely pedagogy, mathematics, and social attitudes.

- Pedagogic studies consist of mathematics teaching and learning, mathematics education research, and mathematics education theories.
- Mathematics studies consist of foundations, analysis, algebra, geometry, combinatorics and computation, applied mathematics, and statistics
- Social attitudes consist of personality and entrepreneurship.

All of those study materials are then compiled into several modules (courses) distributed in semester 1 to semester 8, so that all the materials can be accommodated. There are forty five compulsory modules (128 credits) and twenty two elective modules (54 credits) raised to support the achievement of PLOs as indicated in Table 2.1. A more detailed distribution of the modules in each semester is shown in Table 2.2.

Table 2.2. also shows which courses that support the achievement of each PLO. For example, to achieve a PLO (KNO-2), it requires modules in each semester are as follows.

Semester 1: Basics of Education
Semester 2: Digital Literacy, Educational Psychology, Learning Theories
Semester 3: Innovative Learning I, Contextual Mathematics, History of Mathematics
Semester 4: Assessment, Learning Media, Innovative Learning II, Visual Programming*), Psychology of Mathematics Learning*)
Semester 5: School Mathematics, Curriculum Analysis, E-Learning*), Reasoning and Proof*)
Semester 6: Philosophy of Mathematics Education, Mathematics Education Seminar, Problem Solving
Semester 7: Thesis
Semester 8: Ethnomathematics*)

*) elective module

The PLOs of UPME are closely related to specialist learning outcomes for Bachelor degree programmes created by ASIIN (SSC-12: iM). It can be seen in the following table.

Table 2.1 Correlation between PLO and SSC-12

ASPECTS	PLO of UPME	SSC-12: iM
KNOWLEDGE	Demonstrate mathematical knowledge and insight.	Able to formulate simple mathematical problems
	Demonstrate pedagogical knowledge in designing, implementing and evaluating mathematics' learning.	
	Demonstrate knowledge related to mathematics education research	
SKILL	Design, implement and evaluate mathematics' teaching and learning by using ICT	Able to solve simple practical problems by applying fundamental mathematical methods (where applicable only with software)
	Implement basic principles of mathematics to solve simple mathematics problems	Able to allocate practical problems to a mathematical category
COMPETENCE	Communicate ideas and research results effectively orally and literally	Master in fundamental strategies for transferring methods in selected areas of Mathematics, depending on the practical application
	Make decision based on data/information in solving task that become students' responsibility and evaluate the work that has been done	
	Work effectively as individual as well as group, having entrepreneurship spirits and environmental cares	Create simple, realistic mathematical problems under supervision

ASPECTS	PLO of UPME	SSC-12: iM
ATTITUDES & SOCIAL	Demonstrate scientific, critical and innovative attitudes in mathematics teaching and learning and professional tasks	
	Demonstrate religious values and cultures as well as academic etiquette in doing professional tasks	

The structure of the UPME is modulated in the form of courses for the achievement of the learning outcome programme. Subjects in the UPME structure can be in the form of courses without practicum and courses with practicum.

The arrangement of this curriculum structure has taken into account the placement of prerequisite courses for other courses in each semester. The prerequisite courses are offered first. There are two modules, that is teaching internship and community service offered off-campus such that they do not affect the whole study time.

In order to complete the learning program, students should take 144 credit units (CU) comprising 128 CU compulsory modules and sixteen CU elective module. The distribution of modules in the mathematics education study program is carried out in four stages/years with each year consisting of two semesters. This role is made to prepare mathematics education graduates who are ready to work in accordance with their competencies. It is carried out from basic knowledge at the beginning of the semester up to advanced knowledge not only in the field of mathematics but also in the field of education. The module distribution has a specific route to achieve the PLOs with a scheme which can be seen in Figure 2.1.

Table 2.2 The module distribution in UPME

CU compulsory modules	CU	Note
CU of compulsory modules	128	The CU modules are distributed into 128 module units distributed into 45 compulsory modules.
CU of elective modules	16	There are 54 CU from 22 elective modules

Total	144	

In the first year, students are focused on learning about the fundamental concepts of science and pedagogic. Furthermore, in the second year, the mathematics education study program leads students to learn the strong fundamentals concepts in mathematics such as concepts in real analysis, algebra, computing and statistics. While in the field of education, students learn more about existing educational theories in Innovative learning I and Innovative Learning II module, contextual mathematics. In the third year, students begin to study mathematics and pedagogy for further education. In the mathematics section, students learn about the calculus of many variables, geometry systems. While, in education, students learn about educational research methodologies and philosophy of mathematics education. In the fourth year, students are asked to conduct research as well as school orientation not only to learn about mathematics in the school but also to apply the knowledge that has been learned during the program.

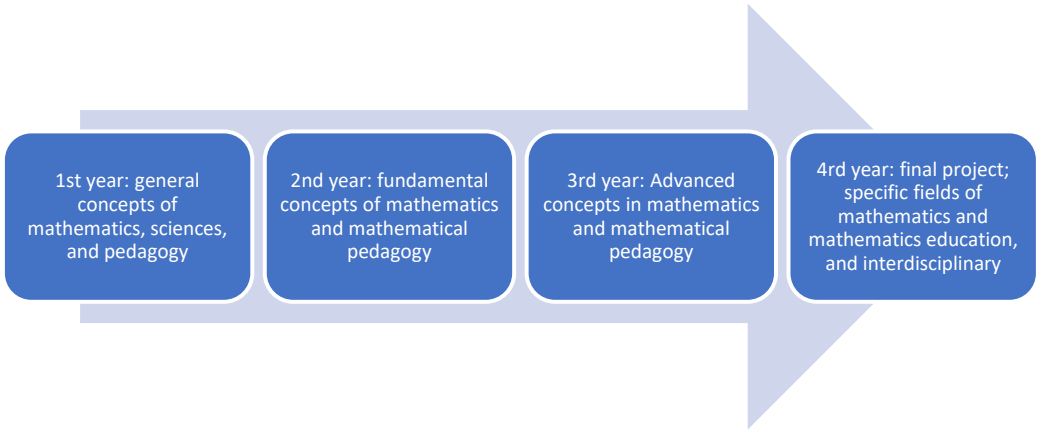


Figure 2.1. Model of Curriculum Structure of Undergraduate Program in Mathematics Education

The detailed curriculum structure of the undergraduate program in Mathematics Education study program and list of elective modules are shown in Table 2.3-2.5. Table. 2.3 shows the mapping of the modules that support the program learning outcomes (PLO).

Table 2.3 Mapping of the Modules that Support the Program Learning Outcomes (PLO)

No	Code	Module	CU	KNO-1	KNO-2	KNO-3	SKI-1	SKI-2	COM-1	COM-2	COM-3	SOC-1	SOC-2
1st Semester													
1	8420203043	Foundations of Mathematics	3	√				√					
2	8420204079	Differential Calculus	4	√				√					
3	1000002003	Indonesian	2						√				
4	8420203036	General Biology	3									√	
5	8420203061	General Physics	3									√	
6	8420203089	General Chemistry	3									√	
7	1000003006	Basics of Education	3		√								
8	1000002018	Pancasila	2										√
2nd Semester													
9	100000202x	Religion Education	2										√
10	1000002033	Citizenship Education	2										√
11		Digital Literacy	2		√		√			√			
12	8420203064	Geometry	3	√				√					
13	8420204083	Integral Calculus	4	√				√					
14	8420203020	English	3						√			√	
15	8420202094	Conservation of Natural Resources and Environment	2								√		√
16	1000002039	Educational Psychology	2		√								
17	8420203219	Learning Theories	3		√								
3rd Semester													
18	8420203007	Elementary Linear Algebra	3	√				√					
19	8420203065	Analytical Geometry	3	√				√					
20	8420203127	Statistic Method	3	√				√					
21	8420202222	Elementary Number Theory	3	√				√					
22	8420203144	Innovative Learning I	3		√		√		√			√	

No	Code	Module	CU	KNO-1	KNO-2	KNO-3	SKI-1	SKI-2	COM-1	COM-2	COM-3	SOC-1	SOC-2
23		Physical Education	2										√
24	8420202110	Contextual Mathematics	2		√		√		√	√		√	
25	8420202197	History of Mathematics	2		√		√			√			
26	1000002011	Basic Social and Cultural Studies*)	2										√
4th Semester													
27	8420203010	Abstract Algebra I	3	√				√					
28	8420203013	Real Analysis I	3	√				√					
29	8420203107	Discrete Mathematics	3	√				√					
30	8420203193	Operation Research	3	√				√					
31	8420203018	Assessment	3		√		√		√				
32	8420202121	Learning Media	2		√		√			√		√	
33	8420203146	Innovative Learning II	3		√		√		√			√	
34	8420203152	Visual Programming*)	3		√		√			√			
35	8420202186	Psychology of Mathematics Learning*)	2		√		√			√			
5th Semester													
36	8420204085	Multivariable Calculus	4	√				√					
37	8420203111	School Mathematics	3		√		√		√	√		√	
38	8420203217	Curriculum Analysis	3		√		√		√	√		√	
39		Education Research Methodology	3			√	√		√	√			
40	8420202142	Probability and Statistics	3	√				√					
41	8420202047	E-Learning*)	2		√		√					√	
42	8420202153	Reasoning and Proof*)	2	√	√			√					
43	8420203201	System of Geometry*)	3	√				√					
44	8420202004	Entrepreneurship *)	2				√		√	√	√	√	
6th Semester													

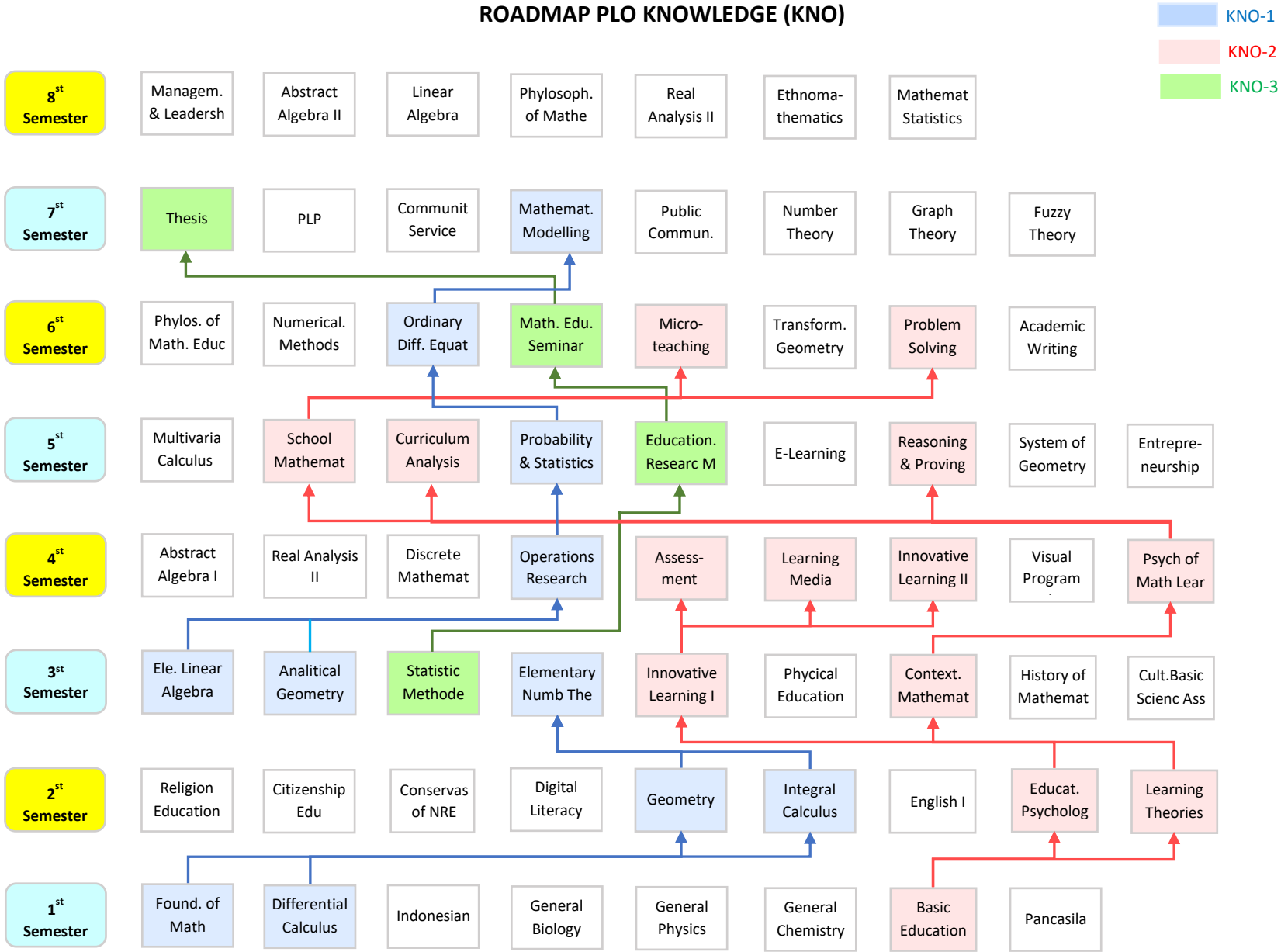
No	Code	Module	CU	KNO-1	KNO-2	KNO-3	SKI-1	SKI-2	COM-1	COM-2	COM-3	SOC-1	SOC-2
45	8420202057	Philosophy of Mathematics Education	2	√	√		√						
46	8420203123	Numerical Methods	3	√				√					
47	8420203173	Ordinary Differential Equation	3	√				√					
48	8420202200	Mathematics Education Seminar	2		√	√			√	√		√	√
49	8420202004	Microteaching	2				√		√	√		√	
50	8420203067	Transformational Geometry*)	3	√				√					
51	8420202148	Problem Solving*)	2	√	√					√			
52	8420202169	Academic Writing*)	2				√		√	√		√	
7th Semester													
53	8420206202	Thesis	6	√	√	√	√		√	√		√	√
54	8420203004	Teaching Internship	4				√					√	
55	8420203096	Community Service	3				√		√	√		√	√
56	8420203149	Mathematical Modelling	3	√				√					
57	8420202093	Public Communication*)	2						√				
58	8420203221	Number Theory*)	3	√				√					
59	8420203224	Graph Theory*)	3	√				√					
60	8420203223	Fuzzy Theory*)	3	√				√					
8th Semester													
61	8420202105	Management and Leadership*)	2								√	√	
62	8420203005	Abstract Algebra II*)	3	√			√						
63	8420203006	Linear Algebra*)	3	√			√						
64	8420202056	Philosophy of Mathematics*)	2	√					√				
65	8420203012	Real Analysis II*)	3	√				√					
66	8420202052	Ethnomathematics*)	2		√		√		√			√	
67	8420203206	Mathematical Statistics*)	3	√				√					

Table 2.4. List of Elective Modules

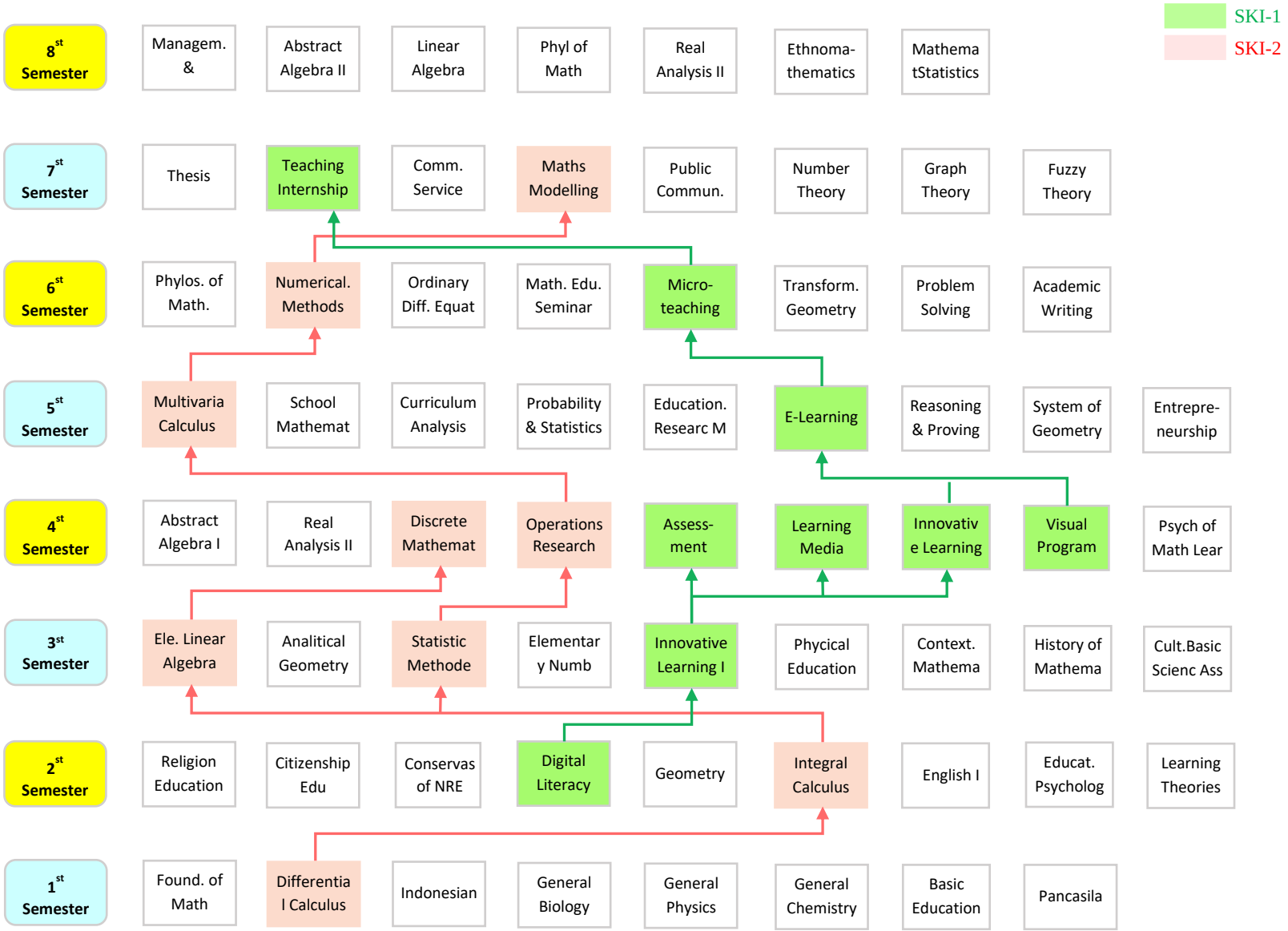
Odd Semester				Even Semester			
No	Code	Module	CU	No	Code	Module Title	CU
1	8420202093	Public Communication	2	1	8420202105	Management and Leadership	2
2	8420202047	E-Learning	2	2	8420203005	Abstract Algebra II	3
3	8420202110	Contextual Mathematics	2	3	8420203006	Linear Algebra	3
4	8420202153	Reasoning and Proof	2	4	8420202056	Philosophy of Mathematics	2
5	8420202197	History of Mathematics	2	5	8420203067	Transformational Geometry	3
6	8420203201	System of Geometry	3	6	8420203152	Visual Programing	3
7	8420203221	Number Theory	3	7	8420202169	Academic Writing	2
8	8420203224	Graph Theory	3	8	8420202186	Psychology of Mathematics Learning	2
9	8420203012	Real Analysis II	3	9	8420202052	Ethnomathematics	2
10	8420203223	Fuzzy Theory	3	10	8420203206	Mathematical Statistics	3
11	8420202004	Entrepreneurship	2	11	8420202148	Problem Solving	2
12	1000002011	Basic Social and Cultural Studies	2				

The achievement of a PLO is supported by several courses that are distributed into eight semesters. The path of achievement for each PLO can be seen in the following diagrams.

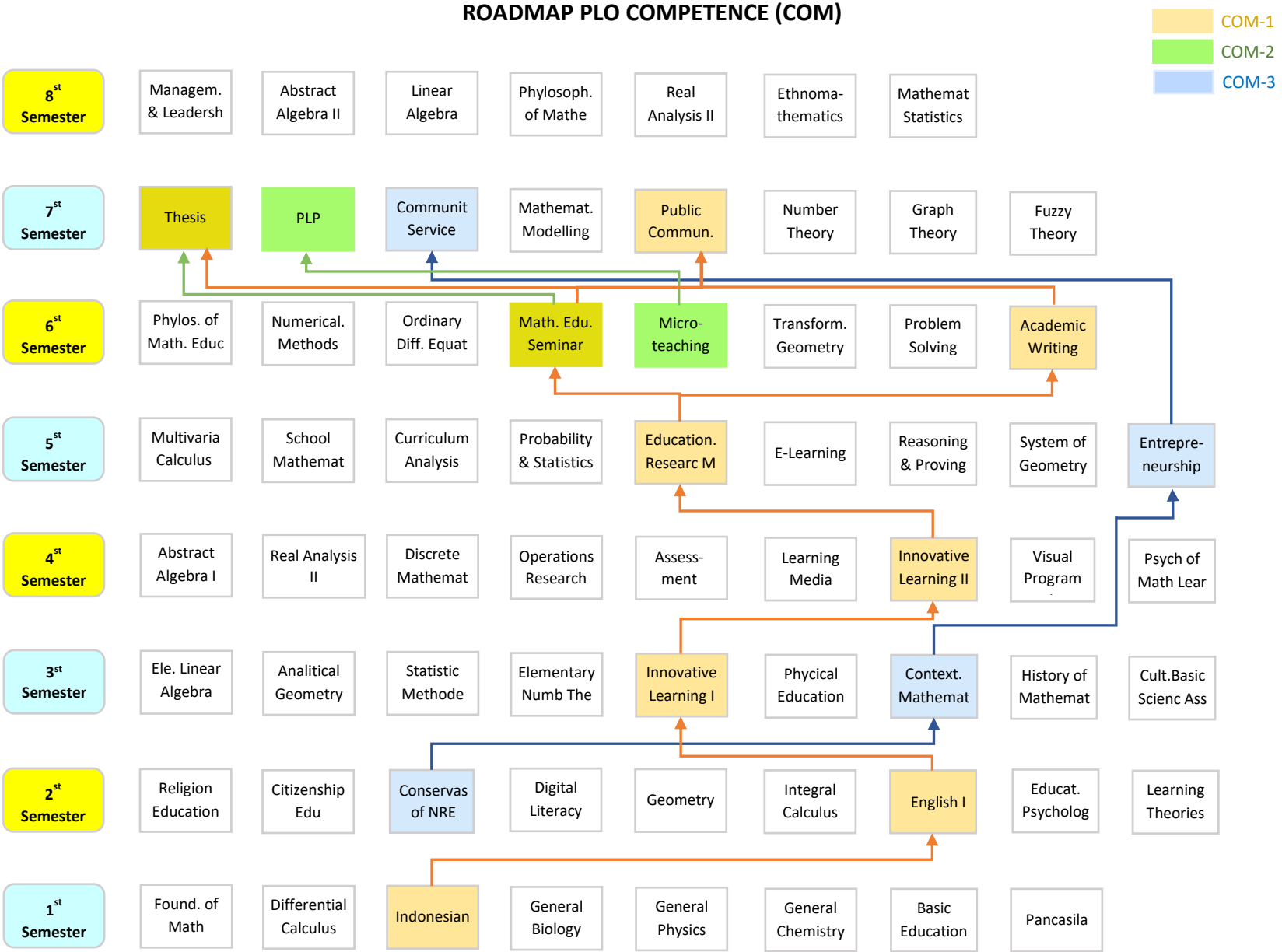
ROADMAP PLO KNOWLEDGE (KNO)



ROADMAP PLO SKIIL (SKI)



ROADMAP PLO COMPETENCE (COM)



ROADMAP PLO SOCIAL (SOC)

