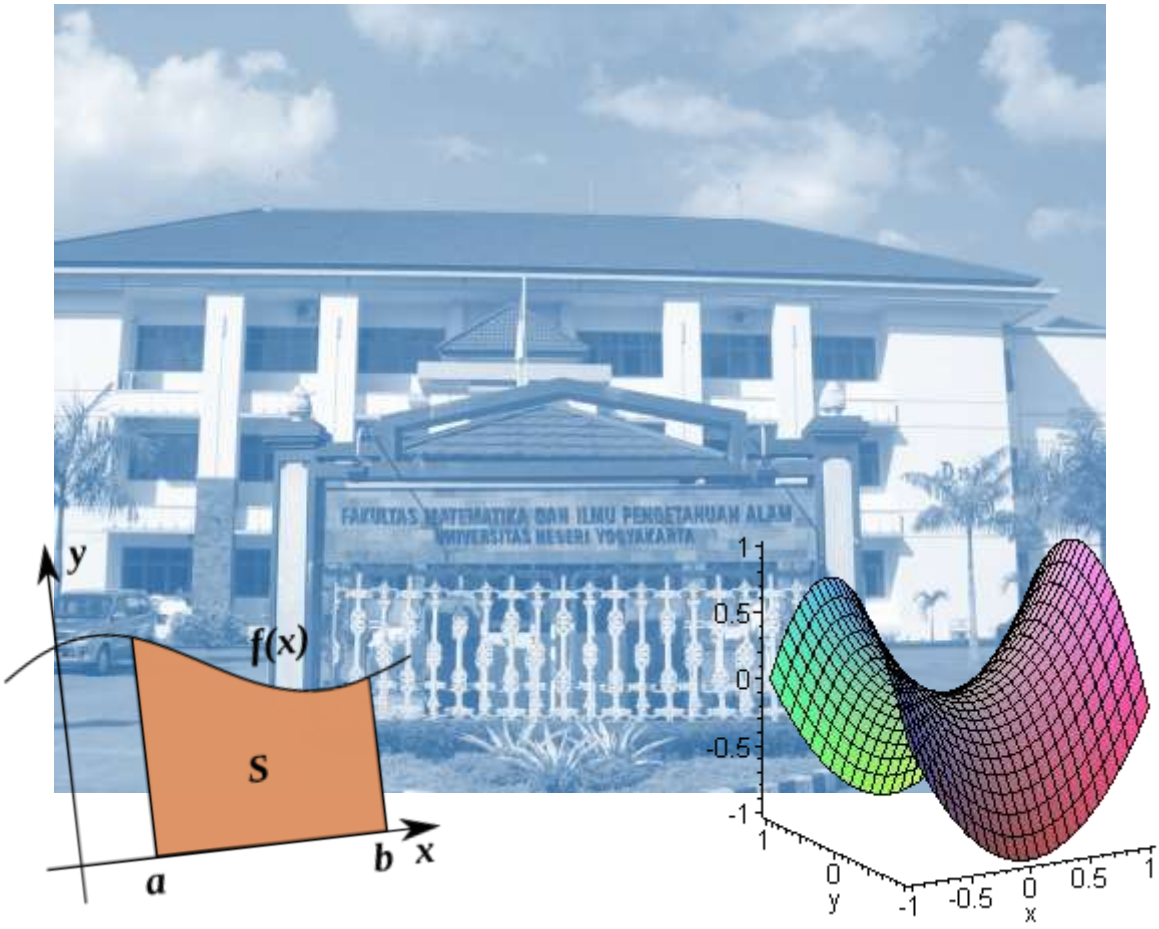
STUDENT HANDBOOK



MATHEMATICS EDUCATION DEPARTMENT
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
YOGYAKARTA STATE UNIVERSITY
2019

Foreword

We give thanks to the presence of God Almighty for His blessings and gifts so that the Student Handbook of the Mathematics Education Department, Faculty of Mathematics and Natural Sciences, Yogyakarta State University (UNY) can be completed. As the name implies, this book is structured to guide students in undergoing lectures in S1 Mathematics Education and S1 Mathematics study programs. This book also aims to introduce students to various organizations, activities, and facilities available at UNY. Thus, students can develop themselves optimally when pursuing a S1 program at UNY.

We always accept criticism, and suggestions from various parties for the improvement of this book in the future.

Yogyakarta, Mei 2019

Editor Team

Table of Contents

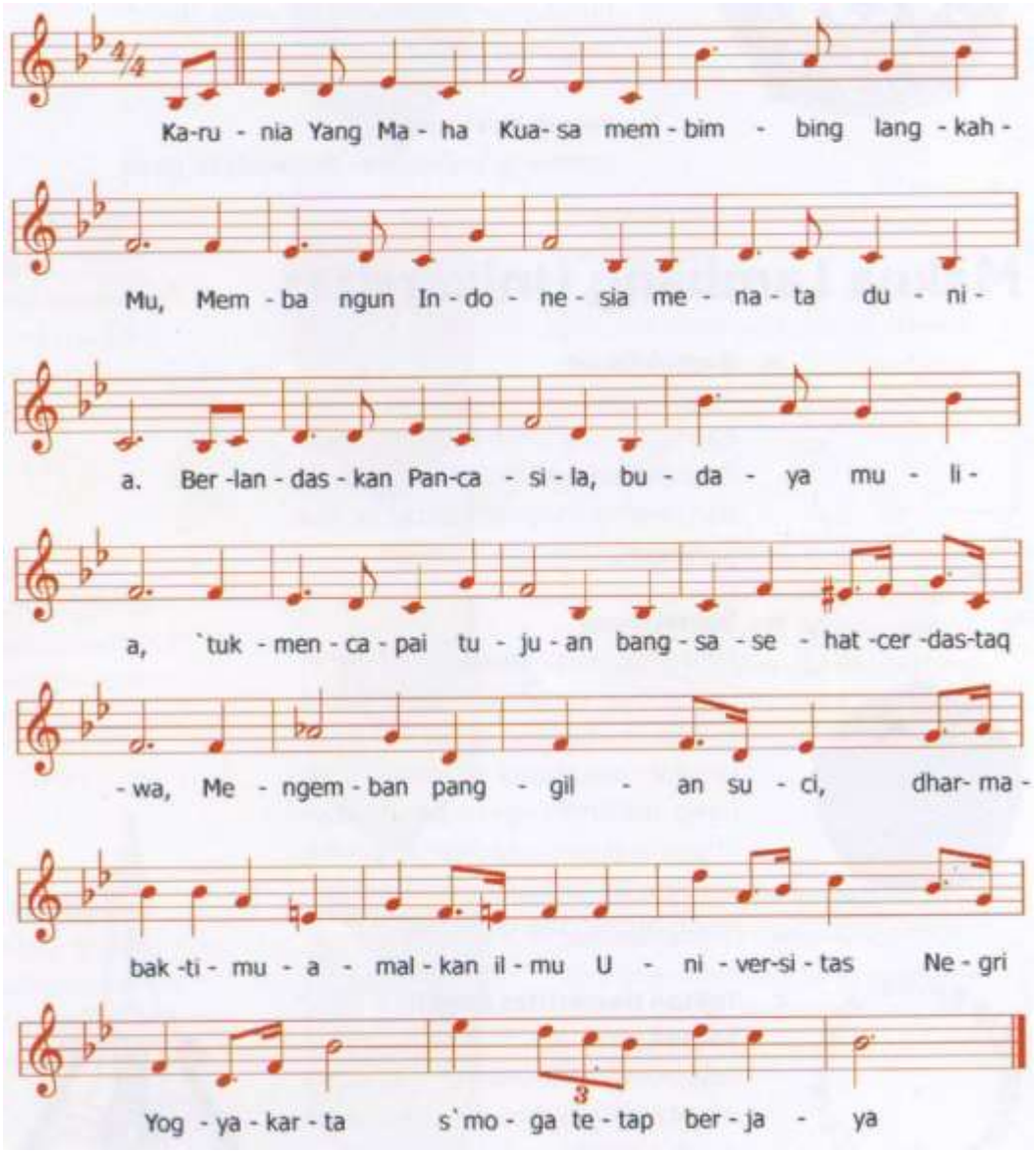
Symbol of UNY

Information:

Lotus symbol in the shape of a pentagon, the basic color is blue. It reads Yogyakarta State University circular with UNY's calligraphic writing, the wings of Garuda Garuda are yellow, and in the middle there is a monument, with a fire-shaped mustaka in three pieces, stairs, chest, body, and pillar legs.

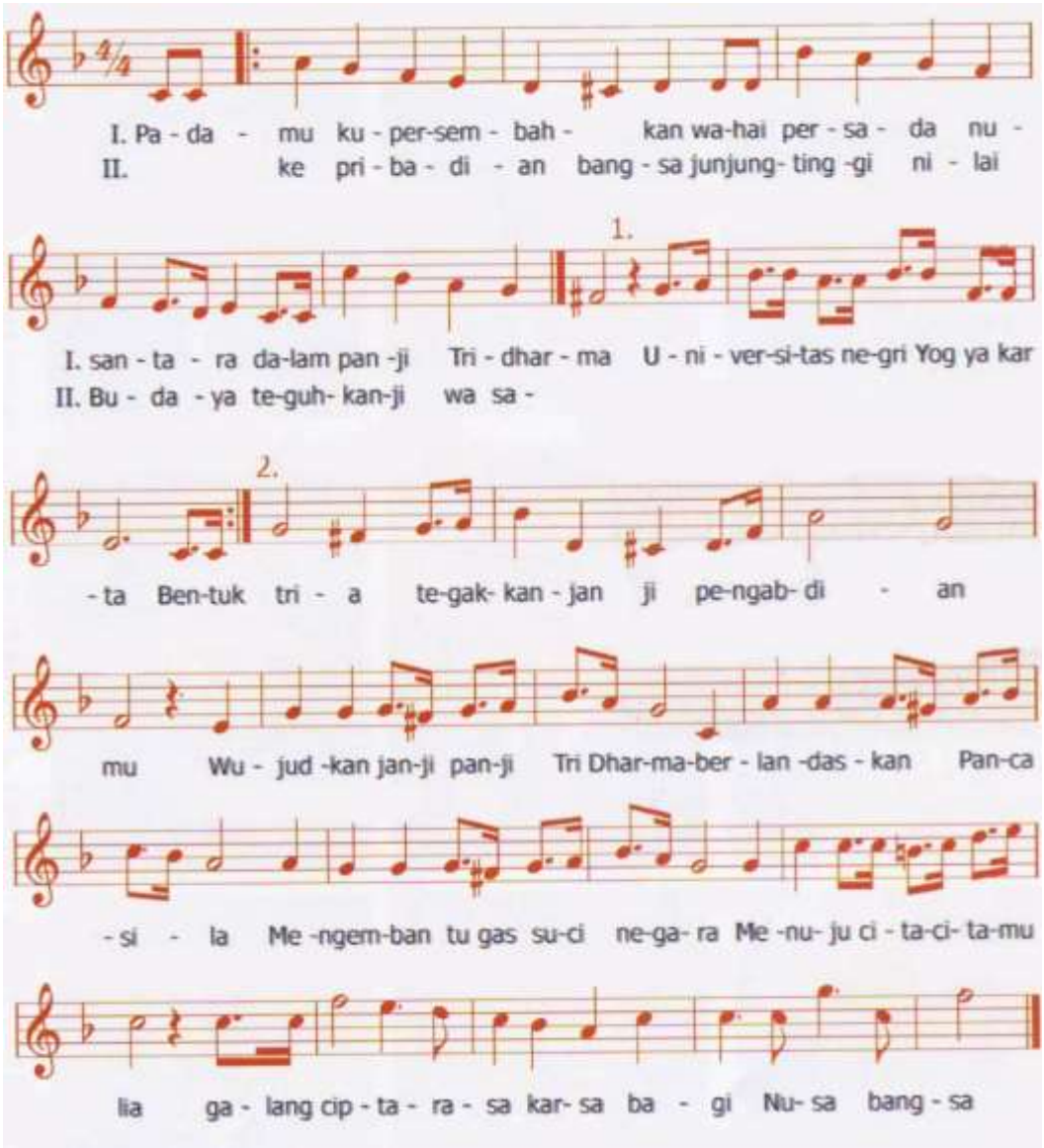
Hymn Yogyakarta State University (UNY)

L,S: Heni Kusumawati



Mars Universitas Negeri Yogyakarta (UNY)

L,S: Agus Untung Yulianta



1 Department of Mathematics Education Profile

A. Short History

The history of IKIP Yogyakarta cannot be separated from the existence of the Faculty of Pedagogic (FP) Universitas Gadjah Mada (UGM) which was established on September 19, 1955. At that time FP UGM had two parts, namely the Education Section and the Physical Education Section. In addition, there are B1 and B2 courses in Natural Sciences organized by the UGM Faculty of Natural Sciences. On February 2, 1962, the Pedagogic Faculty was divided into three faculties, namely the Faculty of Education (FIP), the Faculty of Physical Education (FPD), and the Faculty of Teacher Training and Education (FKIP). But in 1963 the FPD was included in the Department of Sports environment and became the College of Sports (STO).

At that time the demands of teacher were high. FKIP UGM is very popular so that the number of students in 1962 reached 1,469 people. To overcome this condition, the Minister of Education and Culture Decree No. 92 of 1962 concerning the establishment of the Institute of Teacher Education (IPG). On January 3, 1963 the unification between FKIP and IPG was applied to become the Teaching and Education Institute (IKIP). Likewise with FIP which is then also integrated into IKIP. In 1964, the B1-B2 Course in Natural Sciences and Natural Sciences were also separated from UGM and incorporated into the IKIP.

According to the IKIP Chancellor Decree number 05 of 1965 concerning the Organizational Structure of IKIP Yogyakarta, IKIP Yogyakarta has five faculties, namely the Faculty of Education (FIP), the Faculty of Teacher Training in Exacta (FKIE), the Faculty of Teacher Training in Literature and Arts (FKSS), the Faculty of Teacher Training in Social Sciences (FKIS), and the Faculty of Teacher Training in Engineering (FKT). At that time, FKIE had four majors, namely the Mathematics major, the Physics major, the Life Sciences major, and the Chemistry major.

Based on Indonesia Government Regulation number 27 of 1981 concerning Faculty Arrangement and Presidential Decree number 54 of 1982, on September 7, 1982 there was a change in the name of FKIE to become the Faculty of Education in Mathematics and Natural Sciences (FPMIPA). Starting December 8, 1983, FPMIPA held four majors namely Mathematics Education, Physics Education, Biology Education, and Chemistry Education.

In 1997, as the name of IKIP were changed to Yogyakarta State University (UNY), FPMIPA opened new study programs namely the Physics, Mathematics, Chemistry, and Biology Study Program according to the decree of Director General of the Ministry of Education and Culture Republic of Indonesia's number 1259 / DT / T / 97. The name FPMIPA also changed to the Faculty of Mathematics and Natural Sciences (FMIPA). Since that time, the Department of Mathematics Education of YSU held two study programs, namely the S1 Mathematics study program and the S1 Mathematics Education study program.

B. Vision

Realizing majors that have a synergistic cultural system that values learning, values of justice, peace and politeness as well as being responsible and creative in carrying out the Higher Education Tri Dharma, so as to be able to produce superior quality educational and non-educational mathematics in the global world.

C. Mision

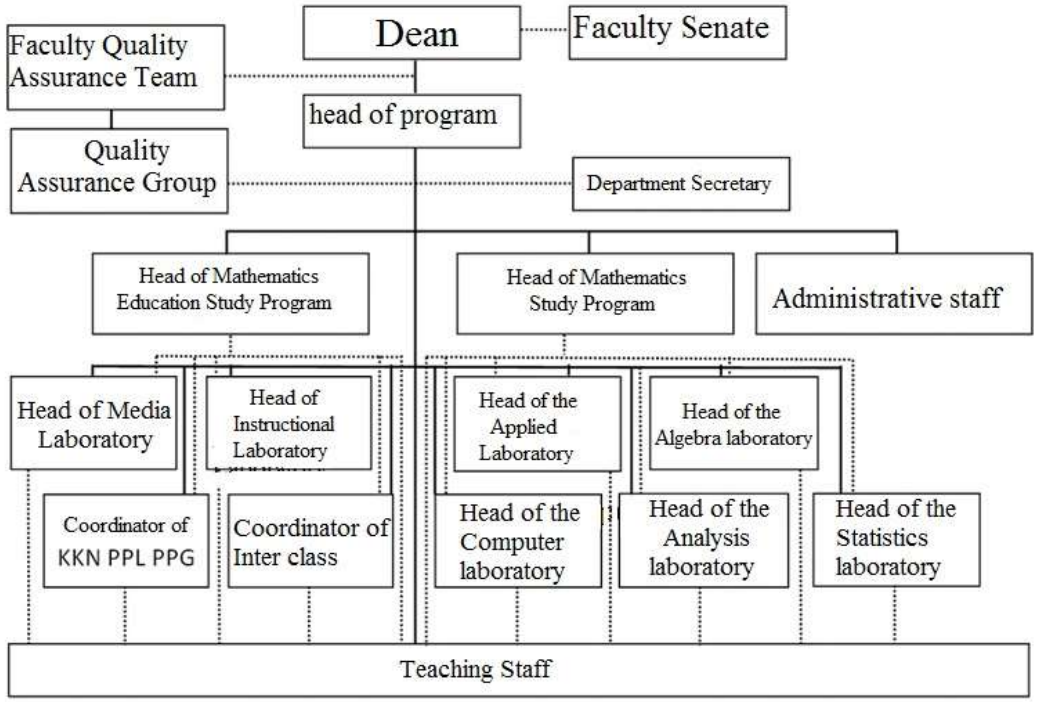
To fulfill this vision, the Department of Mathematics Education of UNY has the following four mission items.

1. Develop and strengthen systematically and synergistically all faculties in order to create an effective and efficient system.
2. Organizing education and teaching synergistically in the field of mathematics education and non-education which produce superior quality human resources.
3. Carrying out mathematical research as well as mathematics education and community service and disseminating the results.
4. Carrying out mutually beneficial cooperation with other parties at home or abroad in increasing resources that are beneficial to society

D. Address

Address : Building D15 Faculty of Mathematics and Natural Sciences 3rd Floor,
UNY Campus, Karangmalang,
Colombo Street, no. 1, Yogyakarta, Indonesia.
Kode Pos : 55281
Telepon : +62 274 548203, +62274 568168 psw. 1396
Fax : +62 274 548203 (Faculty of Mathematics and Natural Sciences)
Site :

E. Organizational Structure



No	Position	Name
1	Head of Mathematics Education Department head of Bachelor of Education in Mathematics programme	Dr. Ali Mahmudi
2	Secretary of Mathematics Education Dept.	Dr. Ariyadi Wijaya
3	Head of Bachelor of Science in Mathematics Programme	Dr. Agus Maman Abadi
4	Quality Assurance Team	Himmawati Puji Lestari, M.Si. Musthofa, M.Sc.

F. Personalia Pendidik

Information related to the pro http://staffnew.uny.ac.id/.

G. Facilities

Educational facilities that maintained by the Department of Mathematics Education consists of

1. Secretary/ Department Room
2. Lecturer Rooms
3. Workshop Room
4. Computer laboratory
5. Audio-visual laboratory
6. Micro teaching laboratory
7. Rooms for Mathematics Education Media
8. Rooms for Undergraduate thesis defence


Computer laboratory (left), Lecturer room (right)

The Faculty of Mathematics and Science also maintain some facilities for the student, such as:

1. Lecture rooms
2. Mathematics Student Association Room (Himatika)
3. Mushola / mosque
4. Parking space

H. Scientific Journal

The Department of Mathematics Education manage and publish several scientific journals as follows.

Pythagoras: Jurnal Pendidikan Matematika

PYTHAGORAS: Jurnal Pendidikan Matematika is a scientific journal in the field of mathematics and mathematics education published in June & December. Accepted and published papers will be freely accessed in this website and the following abstracting & indexing databases:

1. Science and Technology Index (SINTA) by Kementerian Riset, Teknologi, dan Pendidikan Tinggi Republik Indonesia.
2. Indonesian Scientific Journal Database (ISJD)

3. Indonesian Publication Index (IPI)
4. Google Scholar
5. Directory of Open Access Jounals (DOAJ)
6. Crossref Search
7. Publick Knowledge Project (PKP) Index
8. Bielefeld University Library

The journal has been listed in ROAD ISSN and Open Science Directory by EBSCO information service.

Visit: https://journal.uny.ac.id/index.php/pythagoras

Jurnal Riset Pendidikan Matematika (JRPM)

Jurnal Riset Pendidikan Matematika (JRPM) is a scientific journal in the field of mathematics education published twice a year (in May & November). Since April 2017, the journal has been ACCREDITATED by the Ministry of (RistekDikti) of The Republic of Indonesia as an achievement for the peer-reviewed journal which has excellent quality in management and publication, effective until 2022. This journal is abstracted/Indexed in:

1. Science and Technology Index (SINTA) by Kementerian Riset, Teknologi, dan Pendidikan Tinggi Republik Indonesia.
2. Directory of Open Access Journal
3. Google Scholar
4. Indonesian Scientific Journal Database (ISJD)
5. Indonesia One Search
6. Indonesian Publication Index (IPI)
7. Crossref Search
8. Public Knowledge Project (PKP) Index
9. OCLC Worldcat
10. ResearchGate

The journal has been listed in ROAD ISSN as well as Open Science Directory by EBSCO information service.

Visit: https://journal.uny.ac.id/index.php/jrpm

Jurnal Pendidikan Matematika – S1

Contains a collection of articles on the results of research of the Department of Mathematics Education Study Program Mathematics Education (S-1).

Visit: http://journal.student.uny.ac.id/ojs/index.php/pmath

Jurnal Matematika – S1

Contains a collection of articles on the results of research by the Department of Mathematics Education in Mathematics Study Program (S-1)

Visit: http://journal.student.uny.ac.id/ojs/index.php/math/index

2 Lecture System

The Bachelor program is a study program consists of 144 sks (237 ECTS) work arranged in 8 semesters.

A. Academic Guidance

After being accepted as a student of UNY, the Department will appoint an academic advisor / supervisor, also called a guardian lecturer, for each student. Initial guidance will be done classically, while the next guidance will be done 3-4 times each semester individually. Academic guidance circles include:

1. Consultation to take courses at the beginning of the semester,
2. Monitoring learning progress in the middle of the semester,
3. Evaluate the results of lectures at the end of the semester,
4. Consulting services for students who have problems,
5. Provide direction in terms of choosing and proposing scholarships,
6. Directing students to participate in activities outside of campus (international seminars).

Students also need to consult with academic advisors when taking Field Work Practices (PKL) and Final Projects. Academic advisors can be found in their respective workspaces (see page 4), preferably by making an appointment in advance.

B. Semester Credit System

The credit system is the administration of education by stating the burden of student studies, the workload of teaching staff, and the burden of providing educational institutions in the form of credit. By using this system, each student can design a way to meet the entire burden of his studies by considering his abilities, talents, and interests. The credit system also facilitates the transfer of credit between departments or between faculties in one college, even between universities.

Semester is a unit of effective learning process time of 16 (sixteen) weeks excluding the final semester exam. In accordance with the Rector of Yogyakarta State University, for one academic year, three semesters are held:

1. Odd semester: September to January of the following year.
2. Even semester: February to June of the current year.
3. Short semester / between: July to August of the current year.

Overall learning that must be undertaken by each student to complete the undergraduate level is carried out in various forms of educational activities, namely lectures, practical work, seminars, fieldwork practice (PKL), Community Service Program (KKN), to writing the final project. The implementation of education at UNY is based on the Semester Credit System (SKS), so that each educational activity is measured by a standardized study load unit, namely the semester credit unit (credits/sks).

The allocation of time needed to undergo educational activities of one credit per week is as follows.

Types of Learning	Alokasi Waktu 1 sks dalam 1 minggu
Theory (Lecture), tutorial	50 minutes of face-to-face learning 60 minutes structured learning task 60 minutes of independent learning
Seminar	100 minutes face to face 70 minutes of independent activities
Practicum, workshop practice	170 minutes (including report / response preparation)
Research and community service	170 minutes (including the preparation of proposals and reports)

For example, a student taking a Differential Calculus course weighing 3 credits means needing to spend 150 minutes each week attending lecture activities, 180 minutes to work on structured learning tasks (eg homework), and 180 minutes of independent learning (eg working on practice questions, reread lecture notes, and so on).

C. Student Study Load

The study load of students each semester is determined by considering the individual abilities of students and the average study time in a day. If a student is considered to work normally for 9 hours per day, then in one week there is a study time of around 54 hours or 3,240 minutes. By looking at the time allocation of 1 credit hour which is equivalent to 170 minutes, it is obtained that the student learning load under normal conditions is 20 credit hours per semester. The individual abilities of each student are measured through the achievement of the Achievement Index (IP) in the previous semester, with the following conditions (see also page 15).

Previous Semester Performance Index	Maximum Study Load
More than 3,00	24 SKS
2,50 – 3,00	22 SKS
2,00 – 2,49	20 SKS
Less than 2,00	18 SKS

Determination of the study load taken by students in a seminar needs to be consulted with an academic advisor. Fulfilling the maximum study load can be done by adding courses as long as the class is available and the prerequisites are met.

D. Courses

The curriculum of the Undergraduate Program in the Department of Mathematics Education FMIPA UNY is composed of a number of courses, with the respective weight stated in the credits. The amount of credits in each subject is not the same, determined according to the scope of the material and the burden of studying the course. Based on its nature there are two groups of courses:

1. **Compulsory** subjects, must be taken / followed by all students of a study program. There are compulsory courses organized by universities, faculties, and study programs. More than 75% of the courses taken by students are compulsory subjects.
2. **Elective** courses can be selected according to the interests and talents of students to complete graduation requirements. Taking elective courses should also consider the theme of the final project that students want to compile.

Each course also has a **course code** consisting of three letters followed by four numbers. The three-letter code indicates the category of the course, which is:

MKU	Compulsory subject in Yogyakarta State University
AMF	Compulsory subject in Faculty of Mathematics and Natural Sciences
MDK	Compulsory Education Courses
MAT	Non-Educational Mathematics courses
PMA	Educational Mathematics course
PKL	Fieldwork practice/job internship
PPL	Educational Internship Courses

A course can have a **prerequisite**, which is a condition that must be met before taking the course. Prerequisites can be in the form of the number of SKS that have been taken, as well as obtaining certain minimum grades in other subjects.

E. Registration and Payment of Education Costs

Towards the start of the new semester (December / May / July), students are expected to monitor information on the payment of tuition fees in the form of Single Tuition (UKT) Yogyakarta State University.

1. Payment can be made according to schedule online at Bank BTN, Bank BNI, or Bank Mandiri, Branch Offices / Cash Offices throughout Indonesia, or Bank BPD DIY Branch / DIY Cash Office, stating the Student Identity Number (NIM).
2. Students who have finished their studies and will only undergo Judicium at the beginning of the semester can submit an application not to pay the tuition fee / UKT to Deputy Dean I and submit it to the PNBP Sub-Division of Finance and Accounting Section and the Registration and Statistics Sub-Division in the UNY Rectorate complex. If the Judisium date exceeds the specified limit (withdrawal), the student must report back to the PNBP Sub-Division of Finance and Accounting and pay the semester tuition / UKT fees.
3. In the event of payment process constraints (eg difficulties in knowing the number of bills, differences in the number of bills, etc.), students are requested to contact the UNY Finance and Accounting Section at the West Wing Rectorate Building of the 3rd floor, telephone (0274) 552558 **before the deadline for payment of fees education / UKT.**

The following are the steps for paying tuition fees at UNY using BNI ATM:

1. Prepare a BNI ATM / debit card. Make sure the balance in the account is still sufficient.	BNI
2. After inserting the card and PIN into the BNI ATM machine, select **ANOTHER MENU.** 3. Select **PAYMENT** 4. Use the **NEXT MENU** option until the **UNIVERSITY** option appears. Select **UNIVERSITY**. 5. Select **STUDENT PAYMENT**	

CENTER (SPC) 6. Enter the UNY education institution code (**8015**) followed by your **NIM**.	
7. Information will appear on the screen in the form of the name of the student, NIM, faculty, and the amount of the cost bill. If the information is correct, select **YES PAY.** 8. Choose the type of account used to pay. 9. Transaction is complete. The ATM machine will issue proof of payment. Keep the evidence well.	

Students who do not register by paying tuition fees until the deadline for payment ends will be processed on a status basis for college leave. Further provisions regarding **college leave** can be seen on page 20.

F. Filling in Study Plan Cards

Students who have registered have the right to participate in educational activities during the semester. Therefore, students must design learning activities in the coming semester by filling out a Study Plan Card (KRS) online on the **SIAKAD** account (http://siakad2013.uny.ac.id). The KRS filling process is as follows.

1. Students must ask for approval of Academic Advisors before filling in online KRS, related to the course and the number of credits.
2. Students open a SIAKAD account with their respective email and password. Furthermore, during the KRS filling period, the system will display a list of courses available during the semester, along with the name of the supporting lecturer, lecture schedule, and the remaining student capacity. Students can choose the course they want to take. Automatically, the SIAKAD system will limit the number of credits of courses that can be taken based on the IP achievements of the previous semester.
3. Academic Advisers provide online approval regarding the number of credits taken by students for the semester to be undertaken based on the IP achieved in the previous semester.

4. Students can cancel courses taken in the current semester no later than the 8th week (eight) counted from the first week of lecture with the approval of online PA lecturers.
5. Students can add at most one course in the current semester no later than the 3rd week (three) counted from the first week of lecture provided that they do not exceed the maximum study load allowed in one semester.

Every students only can follow the final exam for each subject that written in the Study Plan Card.

G. Lecture

At the first meeting or face to face of each course, lecturers generally will explain course descriptions, syllabi, handbooks / references, learning strategies, and assessment systems. Furthermore, lecturers and students will sign lecture contracts, which contain the frequency of assignments, quizzes, insert tests, and the minimum attendance and weight of the assessment agreed between the lecturer and the student. Lectures can be held face-to-face or blended, which is a combination of direct face-to-face and online learning.

Direct Lecture

Lectures in the form of face-to-face are directly conducted in lecture halls available at the Faculty of Mathematics and Natural Sciences of UNY In attending lectures, students must be present on time and obey the rules of lecture at the Faculty of Mathematics and Natural Sciences UNY as well as the rules of agreement in the lecture contract. Presence for face-to-face lectures is conducted online through http://presensikuliah.uny.ac.id.

Lecture with E-Learning

Online lectures at the Department of Mathematics Education at UNY are carried out through the site http://besmart.uny.ac.id. After logging in by entering the UNY e-mail account and password, users can choose faculties, study programs, to courses. In each course, various files (videos, material summaries, handouts) are available for students to download. Students can also take online quizzes.

Display of online lecture sites at UNY

Online lectures can also be combined with face-to-face lectures, which are known as *blended learning* methods.

H. Assessment and Exams

Assessment of student abilities in a course is carried out through assessments per course outcome (CO) and final semester exams. CO assessment can come from assignments both individually and in groups, quizzes, and projects, as listed in the module handbook for each course. The Final Semester Examination (UAS) is an exam whose implementation is scheduled according to the academic calendar. The schedule and location of the UAS implementation are announced on the web and FMIPA announcement board. Each maximum student only takes two exams in one day.

The final grade (NA) obtained by students for a course (MK) is an accumulation of grades obtained per sub-achievement learning and final semester exams (UAS), with weights determined in the handbook module. Final values are expressed in letters and numbers based on the range of values obtained according to the table below.

NA (Scale 0 – 100)	Score	
	Number	letter
86 – 100	A	4,00
81 – 85	A-	3,67
76 – 80	B+	3,33
71 – 75	B	3,00
66 – 70	B-	2,67
61 – 65	C+	3,33

NA (Scale 0 – 100)	Score	
	Number	letter
56 – 60	C	2,00
41 – 55	D	1,00
0 – 40	E	0,00

Students who have not completed and submitted assignments related to the subject matter, are not given a grade and the grades are given a K mark. The K mark can be converted to their proper grade if the student has completed and submitted assignments within a maximum period of one semester . If the assignment is not fulfilled, students will get grades according to the achievements of the tasks / components that already exist.

Final grades for each student can be accessed at https://siakad2013.uny.ac.id no later than two weeks after the exam is held (before the registration period for the next semester) by logging in using the accounts of each student. Based on the final grade, the semester achievement index (IP) can be determined by: the number of letter grades that have been transferred to the value of the number / weight multiplied by the number of credits of the course divided by the number of credits taken by the student concerned in a particular semester.

Performance Index influences the number of credits students can take in the next semester. So hopefully, students can find out the maximum number of credits that can be taken in the next semester and can use the results of exam results to consider what courses will be taken in the next semester.

I. College Leave (Cuti)

To apply for leave, a S1 Mathematics / S1 Mathematics Education program student must meet the following requirements:

1. Have taken a minimum of one semester of study, with at least 10 credits and the lowest grade point 3.00.
2. Not a scholarship recipient.
3. Not to exceed the limit on the number of college leave.

Conditions for implementing college leave:

1. College leave is not counted as a period of study and is not required to pay tuition fees.
2. The duration of study leave is permitted for 2 (two) semesters while studying.

3. Students who do not register at the beginning of the semester will be processed for college leave automatically.
4. Automatic tuition leave is given at most twice as long as students still have the right to leave college.
5. Students who are on college leave do not have the right to obtain academic services and utilize academic facilities.
6. Students who have already done registration can apply for leave of study and cancel their study plans, but the tuition fees that have been paid cannot be withdrawn.
7. If after taking college leave for two consecutive semesters, students do not register in the following semester, then the semester during college leave is counted as a period of study. If a student will re-register, the student must pay the tuition fees of the previous semester and that will be pursued.
8. Students who have taken college leave for two consecutive semesters and have not registered in the following two consecutive semesters have been declared resigned as students and are entitled to obtain a certificate of lecture (SKPK).

Submission of college leave is done through http://eservice.uny.ac.id with the procedures as specified and submitted every semester in accordance with a predetermined schedule.

J. Credit Transfers and Transfers

Provisions regarding credit transfer or credit transfer (recognition of courses taken by students outside UNY), transfer of study programs (transfer of students from one study program to another study program at UNY), to transfer of universities (transferring students from UNY to other universities)) has been regulated in detail in the Chancellor Decree No. 2019 concerning Academic Regulations.

K. Community Service Program (KKN)

Community Service Program (KKN) is a course with a weight of 3 SKS and has the status of **graduation required** for all UNY S1 students as a form of community service (PPM). The Community Service Program is interdisciplinary in nature and at the same time integrates community education, research and community service activities. Through KKN, students are confronted with the

community so that what happens is the nature of mutual give and take between the two.

There are four types of KKN held at UNY. Integrated KKN is a KKN activity carried out in an integrated manner with PPL at school in a special semester. Community Service Community Service Community Service Program is a community service program implemented in the community, both rural and urban, in a special semester. Mandiri Community Service Program is a Community Service Program that is held in the community in odd and even semester. Thematic KKN is a KKN with a specific theme determined by UNY, regional government, central government, or state institutions.

The KKN implementation process in the special semester generally consists of three stages as follows.

Step	Information
Preparation	Feasibility study and location licensing of KKN. Student registration, group formation. Provision of student candidates for KKN.
Implementation	Departure of KKN participants. Guidance by lecturers at KKN locations. Monitoring the implementation of KKN by the team.
Evaluation	Evaluate the success and implementation of the program. Compilation of individual, group and team reports. Follow-up of the KKN results.

Further information about KKN and complete guidance can be obtained through LPPM UNY (http://lppm.uny.ac.id).

L. Judisium and Graduation

To be declared graduated, a S1 Mathematics study program student must meet the following requirements.

a. Have passed at least 144 credit hours of courses, consisting of all compulsory courses supplemented with elective courses according to the applicable curriculum.
b. Have an achievement index of at least 2.50.
c. The number of SKS courses with a maximum D value of 10% of the total number of SKS.
d. Does not have an E value
e. Have English skills with a minimum ProTEFL score of 425.

Students who have fulfilled the requirements above are allowed to register for Yudisium, which is the process of determining grades and passing students from all academic processes. Judicium can also be understood as announcing grades to students as the final assessment process of all courses taken by students, assigning grades in academic transcripts, and determining the status of student graduation. The Judicial Decision is taken at a judicial meeting held by the Faculty Senate and declared in the form of a Dean Decree. Judicium is held every month in each faculty. The Judisium process is also a determination of the predicate of student graduation according to the following table.

Predicate	**GPA**	**Study period**
With highest praise *(Summa Cum Laude)*	4,00	4,0 years
With praise (*Cum Laude*)	3,51-4,00	< 4,5 years
very satisfactory	3,01-3,50	-
Satisfactory	2,50-3,00	-

To be able to take part in the Yudisium, students need to prepare a file consisting of:

1. Document Study Results (DHS)
2. Theory Free Certificate
   The Study Result Documents and Theory Free Certificate must be signed by the academic supervisor (PA) and the Head of the respective Departments.
3. Library Borrow Free Loan
   A certificate of free lending from the library must be obtained from UPT UNY Library and UNY Faculty of Mathematics and Natural Sciences Library. For the UPT Library of UNY, students can obtain the letter online through http://library.uny.ac.id/member/login/, after completing the obligation to return all books and upload the final thesis script. Guidelines for uploading the final project script can be seen at https://eprints.uny.ac.id/62905/1/panduan.pdf.

The procedure for registering Judisium is as follows:

1. Students who have fulfilled all the requirements take the Judisium registration form in the Sub-Division of Education, Faculty of Mathematics and Natural Sciences (Loket Building D15, 1st floor).

2. Students fill out the Judisium registration form, then ask for a signature of endorsement from the Head of the Study Program.
3. Students submit the form back to the Education Sub-Division by submitting the requirements in the form of Study Result Documents (DHS), proof of payment of the last semester's tuition fees, approval from the Academic Advisor Lecturer, Theory-Free Certificate, Library Loan-Free Certificate, and Loan-Free Certificate laboratory equipment.
4. Students register for the online graduation through **SIAKAD 2013** account (http://siakad2013.uny.ac.id) respectively.
5. Students check the draft diploma and draft transcript, especially on writing the name, date of birth, and course grades. Writing errors, if any, must be immediately revised.
6. Students pay graduation fees as well as graduation fees.
7. Students attend the Yudisium ceremony.

The Judicial Ceremony is held by the Faculty and must be attended by all students who have registered for the month. Yudisium participants must arrive on time with the clothes that have been determined (white shirt tops, subordinate trousers / black skirts, black formal shoes instead of sports). Participants who are unable to attend will be included in the next month's graduation.

Graduation is the final process in a series of academic activities at tertiary institutions. As a sign of the confirmation of the completion of the study, the inauguration procession was held through the UNY open senate meeting. Graduation is held by the University four times a year, namely in February, May, August, and November.

3 Bachelor of Science in Mathematics

A. Vision

In 2025, it will become an excellent study program at the national level in the mastery, application, and development of mathematics and be able to produce graduates who are pious, independent and intellectual.

B. Mission

The above vision is described in four mission points, they are:

1. Organizing educational programs and teaching mathematics synergistically to equip graduates who are able to compete in the global era and are ready to continue their studies to a higher level,
2. Carry out research to develop mathematics and its application that is useful for the development of science and technology,
3. Perform community service through the dissemination and application of mathematics so as to increase public appreciation of mathematics, and
4. Organizing good and clean study program governance and establishing mutually beneficial cooperation with other parties, both at home and abroad, to improve the quality of mathematics education and research and community service.

C. Purpose

1. Produce graduates who are cautious, independent, intellectual, responsible, open, and responsive to changes in the progress of science and technology and the problems faced by society.
2. Produce scientific research and publications in the field of mathematics and their application at the national and international levels which are based on honesty and responsibility.
3. Producing community service activities in the field of mathematics based on research results in the field of mathematics.
4. Produce good and clean governance of study programs and the realization of mutually beneficial cooperation with other institutions at the national and international level to support the implementation of mathematics learning processes, scientific research and publications, and community service.

D. Graduates Profile

Profile of graduates of the UNY Mathematics Study Program are academics, research assistants, data analysts, practitioners, and software developers.

No	Profession	Competence
1.	Academics	Mathematics study program graduates have a strong knowledge base to continue graduate school to become an educator
2.	research assistant	Mathematics study program graduates can become research assistants
3.	Data analyst	Mathematics study program graduates can become consultants and data analysts in a study
4.	practitioner	Mathematics study program graduates can become practitioners in the fields of industry, services, government and banks
5.	Software developer	A mathematics study program graduate can become a software developer who can be applied for the benefit of the community

E. Competence of graduates

Competencies of graduates of UNY's S1 Mathematics study program are stated in the following 10 points *Program Learning Outcome* (PLO).

ATTITUDE

PLO 1	To demonstrate faith in the Almighty God and have a nationalism spirit based on Pancasila.
PLO 2	To appreciate the diversity of cultures, views, religions, and beliefs, as well as the others' opinions and original invention.

GENERAL SKILLS

PLO 3	To think critically, creatively, innovatively, and systematically in the development of science and technology, both independently and in groups;
PLO 4	To disseminate mathematical ideas both written and orally based on honesty;

KNOWLEDGE

PLO 5	To deeply master the fields of mathematics including analysis, algebra, geometry, statistics, applied mathematics, and computer science for the basis of self-development in work and further studies.

SPECIFIC SKILL

PLO 6	To explore, generalize, abstract, and prove the properties, lemma(s), and simple mathematical theorem(s) using logical reasoning.
PLO 7	To formulate, solve, and interpret mathematical models from various fields.
PLO 8	To apply algorithms by using accurate and efficient mathematical rules to create high-quality software systems by noticing the aspects of ethics, law and information security;
PLO 9	To analyze information and data in order to make accurate and scientific decisions.
PLO 10	To use the development of mathematics as well as information and communication technology to become lifelong learners.

F. Course Structure

Semester I

No	Code	Courses	Details of credits				Precondition
			T	P	L	J	
1.	MKU630X	Islamic education Catholic Education Christian education Buddhist education Hindu education Confucius Education	3			3	-
2.	MKU6207	Civic education	2			2	-
3.	MKU6210	Statistics	2			2	-
4.	MKU6211	English	2			2	-
5.	MAT6301	Logic and Sets	3			3	-
6.	MAT6302	Differential Calculus	3			3	-
7.	MAT6303	Plane Geometry	2			2	-
8.	MAT6304	Information and communication technology	1	1		2	-
Number of credits						19	

Semester II

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	MKU6208	Pancasila	2			2	-
2.	MKU6214	Socio Cultural Education	2			2	-
3.	MAT6205	Number Theory	2			2	MAT6301
4.	MAT6206	Geometry	2			2	MAT6303
5.	MAT6307	Integral Calculus	3			3	MAT6302
6.	MAT6308	Linear Algebra	3			3	MAT6301
7.	MAT6309	Advanced Statistics	2	1		3	MAT6210
8.	MAT6310	Algorithms and Programming	2	1		3	MAT6204
Number of credits						20	

Semester III

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	MAT6311	Abstract Algebra	3			3	MAT6205
2.	MAT6312	Analytic Geometry	3			3	MAT6206
3.	MAT6313	Advanced Calculus	3			3	MAT6307
4.	MAT6314	Differential Equations	3			3	MAT6307
5.	MAT6315	Probability Theory	3			3	MAT6301
6.	MAT6316	Computer application	2	1		3	MAT6310
7.	MAT6317	Discrete Mathematics	3			3	MAT6301
Number of credits							

Semester IV

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	AMF6201	Perspective of Mathematics and Natural Sciences	2			2	-
2.	MAT6318	Advanced Abstract Algebra	3			3	MAT6311
3.	MAT6319	Linear Programming	3			3	MAT6308
4.	MAT6320	Partial Differential Equations	3			3	MAT6314
5.	MAT6321	Information Systems and Data Base	2	1		3	MAT6310
6.	MAT6322	Mathematical Modeling	3			3	MAT6314
7.	MAT6323	Mathematical Statistics	2	1		3	MAT6315
Jumlah sks						20	

Semester V

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	MKU6209	Bahasa Indonesia	2			2	-
2.	MAT6224	English for Mathematics	2			2	-
3.	MAT6325	Real Analysis	3			3	MAT6313
4.	MAT6326	Advanced Linear Algebra	3			3	MAT6308
5.	MAT6327	Applied Regression Analysis	2	1		3	MAT6309
6.	MAT6228	Transformational Geometry	2			2	MAT6312
7.	MAT6329	Operations Research	3			3	MAT6319
8.	MAT6330	Complex Analysis	3			3	MAT6313
Number of credits						21	

Semester VI

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	MKU6212	Entrepreneurship	1		1	2	-
2.	MAT6231	History of Mathematics	2			2	-
3.	MAT6332	Numerical Method	2	1		3	MAT6310
4.	MAT6233	Advanced Real Analysis	2			2	MAT6325
5.	MAT6234	Graph Theory	2			2	MAT6317
6.	MAT6335	Mobile Device Programming	2	1		3	MAT6310
7.		*Elective Courses 1*				3	
8.		*Elective Courses 2*				3	
Number of credits						20	

Semester VII

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	MKU6313	Community Service Program			3	3	ε 100 SKS
2.	PKL6302	Field Work Practice			3	3	ε 100 SKS
3.	MAT6336	Applied Multivariate Statistics	2	1		3	MAT6309
4.	MAT6237	Mathematics Seminar	2			2	ε 70 SKS
5.		*Elective Courses 3*				3	
6.		*Elective Courses 4*				3	
Number of credits						17	

Semester VIII

No	Code	Course	Details credits				Prerequisites
			T	P	L	J	
1.	MAT6638	Final Thesis	6			6	ε 110 SKS
Number of credits						6	

Elective Subjects in Algebra

No	Code	Course	Smt	Details credits				Prerequisites
				T	P	L	J	
1.	MAT6339	Applied Linear Algebra	6	3			3	MAT6236
2.	MAT6340	Fuzzy Set Theory	6	3			3	MAT6301
3.	MAT6341	Cryptography	6	3			3	MAT6205
4.	MAT6342	Coding Theory	7	3			3	MAT6318
5.	MAT6343	Module Theory	7	3			3	MAT6318
6.	MAT6344	Semigroup Theory	7	3			3	MAT6311

Elective Subjects in the fields of Analysis and Geometry

No	Code	Course	Smt	Details credits				Prerequisites
				T	P	L	J	
1.	MAT6345	Introduction to Topology	6	3			3	MAT6325
2.	MAT6346	Introduction to the Lebesque Measure and Integral Theory	7	3			3	MAT6326
3.	MAT6347	Introduction to Functional Analysis	6	3			3	MAT6325
4.	MAT6348	Systems of Geometry	6	3			3	MAT6203
5.	MAT6349	Fractal Geometry	7	3			3	MAT6325
6.	MAT6350	N-Dimension Geometry	7	3			3	MAT6312

Elective Courses in Applied Mathematics

No	Code	Course	Smt	Details credits				Prerequisites
				T	P	L	J	
1.	MAT6351	Introduction to Dynamic Systems	6	3			3	MAT6214

2.	MAT6352	Engineering Mathematics	6	3			3	MAT6214
3.	MAT6353	Actuarial Mathematics	7	3			3	MAT6315
4.	MAT6354	Initial Value Problems and Boundary Conditions	7	3			3	MAT6314
5.	MAT6355	Introduction to Systems Theory	7	3			3	MAT6314
6.	MAT6356	Optimization Theory	6	3			3	MAT6319

Mata Kuliah Pilihan bidang Komputer

No	Code	Course	Smt	Details credits				Prerequisites
				T	P	L	J	
1.	MAT6357	Object Oriented Programming	7	2	1		3	MAT6310
2.	MAT6358	Artificial intelligence	7	2	1		3	MAT6310
3.	MAT6359	Data Mining	7	2	1		3	MAT6309, MAT6310
4.	MAT6360	Computer network	6	2	1		3	MAT6204
5.	MAT6361	Web Design Programming	6	2	1		3	MAT6204
6.	MAT6362	Digital Image Processing	6	2	1		3	MAT6316

Elective Subjects in Statistics

No	Code	Course	Smt	Details credits				Prerequisites
				T	P	L	J	
1.	MAT6363	Categorical Data Analysis	7	2	1		3	MAT6309
2.	MAT6364	Nonparametric Statistics	6	2	1		3	MAT6210
3.	MAT6365	Time Series Analysis	6	2	1		3	MAT6327
4.	MAT6366	Experimental design	7	2	1		3	MAT6309
5.	MAT6367	Statistics Computing	6	2	1		3	MAT6309
6.	MAT6368	Queue theory	7	2	1		3	MAT6315
7.	MAT6369	English Advanced Mathematics	6	2			2	MAT6224

Descriptions, learning outcomes, prerequisites, references, and assessment guidelines can be seen in the Module Handbook of each course

G. Field Work Practice (PKL)

Field Work Practice is a course that must be taken by every Non-Education Study Program Student at FMIPA UNY in completing curriculum integrity (minimum 144 credits) to complete the prerequisites for obtaining a bachelor's degree and is required to graduate. This course is carried out only in the field (without theory in the classroom and guided practicum in the laboratory) in industries or institutions that have relevance to the objects and problems of mathematics and science. The weight of street vendors is 3 credits of field practice equivalent to 136 hours in a period of 1 month.

Further provisions regarding the submission of PKL titles, determination of PKL locations, PKL administration, and preparation of PKL final reports can be seen in the PKL guidebook available at http://fmipa.uny.ac.id/pedoman-pkl.

H. Thesis

Thesis final project for undergraduate students in Mathematics is a compulsory subject in the form of student scientific papers that reflects their ability to carry out scientific thought processes and patterns through research activities. This course weighs 6 credits and is taken in the fourth year.

The process of preparing the thesis in the BSM cannot be separated from the **Mathematics Seminar course** (MAT6237) which provides the basics of the ability to study literature, research, and write procedures for scientific papers. Students who have fulfilled the prerequisite for taking thesis (110 credits with a minimum GPA of 2.0) contact the academic advisor to ask for thesis preparation recommendations. Recommendations and brief description related to the title of the thesis are consulted with the Head of Mathematics Study Program to determine the thesis supervisor.

Students contact the appointed supervisor to ask for the lecturer's approval. Furthermore, students work on the thesis under the guidance of the supervisor, by filling in the thesis final assignment guidance card each time the guidance. After the thesis is completed, students can submit a thesis examination application.

A complete guide to writing / preparing a thesis can be downloaded at http://fmipa.uny.ac.id/pedoman-tas. The process of proposing topics to the submission of SK thesis examination is done online using the SIBIMTA information system (http://bimbingan.uny.ac.id).

4 Bachelor of Education in Mathematics

A. Vision

The vision of FMIPA UNY BEM is "in 2025 become a mathematics education study program that has the system and working ethos international standard and capable of producing graduates that excellent, creative, and innovative based on faith, independence, and intelligence".

B. Mission

Missions of Mathematics Education Study Program are.

1. Perform the quality learning process to prepare graduates that are excellent, creative, and innovative based on faith, independence, and intelligence.
2. Encourage scientific research and publication in the mathematics education field to support the learning process and mathematic educational knowledge development.
3. Enforce public service activity in the mathematics education field to support the learning process, teacher and educational staff professionality development, as well as public appreciation development to mathematics and mathematics education.
4. Perform study program governance that is good and clean as well as encourages cooperation that is beneficial to each other with other institutions at national and international levels to support the mathematic learning process, scientific paper research, and publication, as well as public service enforcement.

C. Purpose

Purposes of FMIPA UNY Mathematics Education Study Program are.

1. Actualize graduates that are excellent, creative, and innovative based on faith, independence, and intelligence as well as highly competitive in both national and regional.
2. Actualize scientific research and publication in mathematic education field to support the learning process and mathematic educational knowledge development.
3. Actualize public service activity in the mathematics education field to support the learning process, teacher and educational staff professionality development, as well as public appreciation development to mathematics and mathematics education.
4. Actualize study program governance that is good and clean as well as encourages cooperation that is beneficial to each other with other institutions at national and international levels to support the mathematics

learning process, scientific paper research, and publication, as well as public service enforcement.

D. Graduates Profile

FMIPA UNY Mathematics Education Study Program produces graduates that are excellent, creative, and innovative based on faith, independence, and intelligence, that can undergo profession as a mathematics educator, a researcher in mathematics education field, and manager in the education field. These are each description of those graduate's profiles.

No	Graduates Profile	Description of Graduates Profile
1	Mathematic Educator	Graduates of the mathematics education study program can become an educator in the mathematic field, as a professional lecturer, a teacher in middle school, widyaiswara, tutor, instructor, trainer, and mathematic student companion.
2	Researcher in the mathematics education field	Graduates of the mathematics education study program can become researchers in the education field, including mathematic development/ subject book publication and learning media.
3	Manager in the education field	Graduates of the mathematics education study program can become managers of the educational institution (education unit, tutoring agency, and other educational institutions).

E.Graduates Competence

Graduates competency of Bachelor's degree in Mathematics Education Study Program stated in these PLO items.

ATTITUDE

PLO 1	To demonstrate religiosity and human values in workplace and society.
PLO 2	To demonstrate responsibility, adaptability, autonomy, and leadership in accomplishing tasks.

GENERIC SKILL

PLO 3	To demonstrate both written and oral communication and collaboration skills.
PLO 4	To demonstrate the ability to effectively use information and communication technology.

KNOWLEDGE

PLO 5	To possess profound knowledge of the concepts and principles of school mathematics and advanced mathematics.
PLO 6	To possess profound knowledge of the concepts of basic education, pedagogy, didactic mathematics, and educational research methods.

SPECIFIC SKILLS

PLO 7	To apply basic concepts of education, pedagogy, didactic mathematics, and school and educational research methods.
PLO 8	To design innovative mathematics instruction that utilizes a variety of strategies.
PLO 9	To conduct effective mathematics teaching and learning practices by applying pedagogical and didactical knowledge.
PLO 10	To develop innovative instructional media and resources for mathematics learning.
PLO 11	To perform classroom assessment.
PLO 12	To conduct research in mathematics learning.

F. Course Structure

Semester I

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	MKU630X	Islam Education (Pendidikan Agama Islam) Catholic Education (Pendidikan Agama Katolik) Christian Education (Pendidikan Agama Kristen) Buddhist Education (Pendidikan Agama Budha) Hindu Education (Pendidikan Agama Hindu) Konghucu Education (Pendidikan Agama Konghucu)	3			3	-
2.	MKU6210	Statistic (Statistika)	2			2	-
3.	MDK6201	Education Science (Pendidikan Ilmu Pengetahuan)	2			2	-
4.	MAT6301	Logic and Sets (Logika dan Himpunan)	3			3	-
5.	MAT6302	Differential Calculus (Kalkulus Diferensial)	3			3	-
6.	MAA6303	Plane Geometry(Geometri Bidang)	3			3	-
7.	MAA6201	Algebra (Aljabar)	2			2	-
8.	PMA6201	ICT and Mathematic Learning	1	1		2	-

		Media					
Total sks						20	

Semester II

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	MKU6208	Pancasila (Pancasila)	2			2	-
2.	MKU6211	English Language (Bahasa Inggris)	2			2	-
3.	MDK6202	Educational Psychology (Psikologi Pendidikan)	2			3	-
4.	MAT6205	Numeral Theory (Teori Bilangan)	2			2	MAT6301
5.	MAT6206	Solid Geometry (Geometri Ruang)	2			2	MAT6303
6.	MAT6307	Integral Calculus (Kalkulus Integral)	3			3	MAT6302
7.	MAT6309	Advanced Statistic (Statistika Lanjut)	2	1		3	MAT6210
8.	MAT6310	Algorithms and Programming (Algoritma dan Pemrograman)	2	1		3	MAT6204
9.	MAA6202	Trigonometry (Trigonometri)	2			2	-
Total sks						20	

Semester III

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	MKU6207	Civics Education (Pendidikan Kewarganegaraan)	2			2	-
2.	AMF6201	Perspective of Mathematics and Natural Science (Wawasan dan Kajian MIPA)	2			2	-
3.	PMA6202	Mathematic Learning Psychology (Psikologi Pembelajaran Matematika)	2			2	-
4.	PMA6203	English Language of Mathematic Education I (Bahasa Inggris Pendidikan Matematika I)	2			2	MKU6211
5.	MAA6204	Plane Analytic Geometry (Geometri Analitik Bidang)	2			2	MAA6303
6.	MAA6206	Computer Application	1	1		2	MAT6310

		(Aplikasi Komputer)					
7.	MAT6308	Linear Algebra (Aljabar Linear)	3			3	MAT6301
8.	MAT6313	Advanced Calculus (Kalkulus Lanjut)	3			3	MAT6307
9.	MAT6315	Probability Theory (Teori Peluang)	3			3	MAT6301
Total sks						20	

Semester IV

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	MKU6214	Socio Cultural Education (Pendidikan Sosial Budaya)	2			2	-
2.	MDK6203	Management of Education (Manajemen Pendidikan)	2			2	-
3.	MDK6204	Sociology and Antropology of Education (Sosiologi dan Antropologi Pendidikan)	2			2	-
4.	PMA6204	Mathematic Curriculum and Learning (Kurikulum dan Pembelajaran Matematika)	2			2	-
5.	PMA6305	Mathematic Learning Strategy (Strategi Pembelajaran Matematika)	2		1	2	-
6.	PMA6206	Mathematic Learning Media Development and Production (Pengembangan dan Produksi Media Pembelajaran Matematika)	1	1		2	-
7.	MAA6205	Solid Analytic Geometry (Geometri Analitik Ruang)	2			2	MAT6204
8.	MAT6314	Differential Equation (Persamaan Diferensial)	3			3	MAT6307
9.	MAT6319	Linear Programming (Pemrograman Linear)	3			3	MAT6308
Total sks						20	

Semester V

No	Kode	Mata Kuliah	Rincian sks				Prasyarat
			T	P	L	J	
1.	MKU6209	Indonesian Language (Bahasa Indonesia)	2			2	-
2.	PMA6207	Mathematic Learning Assessment (Penilaian Pembelajaran Matematika)	2			2	PMA6204

3.	PMA6308	Mathematic Middle School Study (Kajian Matematika Sekolah Menengah)	3			3	-
4.	PMA6309	Mathematic Learning Plan (Perencanaan Pembelajaran Matematika)	3			3	PMA6204
5.	PMA6210	Mathematic Learning Multimedia (Multimedia Pembelajaran Matematika)	1	1		2	MAT6310
6.	MAT6311	Abstract Algebra (Aljabar Abstrak)	3			3	MAT6205
7.	MAT6317	Discrete Mathematic (Matematika Diskret)	3			3	MAT6301
8.	MAT6325	Real Analysis (Analisis Nyata)	3			3	MAT6313
Total sks						20	

Semester VI

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	MKU6212	Enterpreneurship (Kewirausahaan)	2			2	-
2.	PMA6311	Mathematic Education Research Methodology (Metodologi Penelitian Pendidikan Matematika)	3			3	-
3.	PMA6212	Mathematic Education Seminar (Seminar Pendidikan Matematika)	2			2	-
4.	PMA6213	Micro Teaching (Pembelajaran Mikro)		1	1	2	PMA6309
5.	MAT6228	Transformation Geometry (Geometri Transformasi)	2			2	MAA6204
6.	MAT6332	Numeric Method (Metode Numerik)	3			3	MAT6310
7.		*Elective Course 1 (Mata kuliah pilihan 1)*	3			3	
8.		*Elective Course 2 (Mata kuliah pilihan 2)*	3			3	
Total sks						20	

Semester VII

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	MKU6313	Community Service Program (Kuliah Kerja Nyata/ KKN)			3	3	-
2.	PMA6214	Ethnomathematics	1		1	2	PMA6305

		(Etnomatematika)					
3.	PPL6301	Educational Internship (Magang Kependidikan)			3	3	PMA6213
4.	MAT6231	Mathematic History (Sejarah Matematika)	2			2	-
5.		*Elective course 3 (Mata kuliah pilihan 3)*	2			2	-
6.		*Elective course 4 (Mata kuliah pilihan 4)*	2			2	-
Total sks						14	

Semester VIII

No	Code	Course	Detail sks				Prerequisite
			T	P	L	J	
1.	PMA6616	Final Assignment	6			6	≥ 110 SKS
Jumlah sks						6	

Elective Course

No	Code	Course	Smt	Detail sks				Prerequisite
				T	P	L	J	
1.	MAA6307	Economic Mathematic (Matematika Ekonomi)	6	3			3	MAA6201
2.	MAA6308	Vector Analysis (Analisis Vektor)	6	3			3	MAT6308
3.	MAT6327	Applied Regression Analysis (Analisis Regresi Terapan)	6	2	1		3	MAT6309
4.	MAT6334	Graf Theory (Teori Graf)	6	3			3	MAT6317
5.	MAT6348	Geometry System (Sistem Geometri)	6	3			3	MAA6303
6.	MAT6361	Web Design Programming (Pemrograman Desain Web)	6	2	1		3	PMA6201
7.	PMA6217	English Language of Mathematic Education II (Bahasa Inggris Pendidikan Matematika II)	7	2			2	PMA6203
8.	PMA6218	Mathematic Education Philosopy (Filsafat Pendidikan Matematika)	7	2			2	
9.	PMA6219	Qualitative Research (Penelitian Kualitatif)	7	2			2	PMA6311
10.	PMA6220	International Mathematic Education Study (Kajian Pendidikan Matematika Internasional)	7	2			2	
11.	PMA6221	Mathematic Elementary Study (Kajian Matematika Sekolah Dasar)	7	2			2	
12.	PMA6222	Mathematic Education Capita	7	2			2	

		Selekta (Kapita Selekta Pendidikan Matematika)						

Description, learning achievement, references, and evaluation guidelines can be seen at Module Handbook each course

G. Educational Internship

Educational Internship, is also called as Field Experience Practice (PPL), is obligatory pass course with 3 SKS amount for the Educational Bachelor Degree Study Program in UNY, that has purpose to complete the student's competence as educational staff candidate. This course enforcement is arranged by Development and Education Quality Assurance Institute (LPPMP) UNY.

To join Educational Internship course, the student has to fulfill these requirements.

1. Registered as active student of UNY Mathematics Education Bachelor Degree in internship enforcement semester (odd semester).
2. Taken minimum 90 sks with minimum GPA 2,00.
3. Passed Micro Teaching course (PMA6213) with minimum score B.
4. Done the registration entry by online through the website.
5. Student who is pregnant can join PPL when the departure time her pregnancy age is not more than 5 months or 20 weeks.The student obligates to give obstetrician letter that explains about pregnancy age and condition, and husband letter that gives permission to do PPL as well as responsible for every possible risks happened.

By online, student also validates and chooses the school that becomes the location of educational internship. School election can be changed or rearranged by LPPMP by considering students amount (minimum 10 persons), needs/ subject distribution, school level, school type, gender, and religion. Final location placement after the changes, if there any, will be announced by LPPMP to the student.

In the next step, student will join briefing in group by each Field Supervisor (DPL). Student has to do socialization to the school that becomes the location for PPL, arrange PPL planing program, enforce the program that has been created in PPL location, and arrange PPL final report.

Complete provisions about Educational Internship enforcement can be seen at http://lppmp.uny.ac.id/buku-panduan-ppl-2016.

H. Final Assignment

Thesis final assignment for the student of Bachelor Degree of Mathematic Education is an obligatory course that has to be passed that contains 6 sks, in a form of student's scientific paper that shows his/her ability in doing process and scientific thinking patternthrough research activity.

The thesis process arrangement in Mathematic Education Bachelor Degree Study Program cannot be separated with **Mathematic Education Seminar** (PMA6212) that gives basics competence to literature study, research, and scientific paper writing procedure. The student who has fulfilled the thesis prerequisite course (110 SKS with GPA minimum 2,0) communicates to academic advisor asking for thesis proposal recommendation. Recommendation and short explanation related to thesis title are consulted to Head of Mathematic Education Study Program to decide supervisor.

Student communicates appointed supervisor to get his/her agreement. After that, student does the bachelor degree thesis under supervisor guidance, by filling final assignment thesis guidelines card every guidance. After finishing the thesis, student is able to propose thesis exam request.

Complete guideline about thesis writing/ arrangement can be downloaded athttp://fmipa.uny.ac.id/pedoman-tas. Topic proposal process to thesis exam proposal decree are done by online using information system SIBIMTA (http://bimbingan.uny.ac.id).

5 Students Activities and Organizations

To support self development especially students' soft skill, Universitas Negeri Yogyakarta (UNY) provides several kind of activities and organizations, in department, faculty, as well as university.

A. Activities and Organizations in Department Level

Student Association of the Department of Mathematics Education (Himatika) is the only one student organization in FMIPA UNY Mathematic Education Department. HIMATIKA FMIPA UNY moves and works based on Pancasila, science, and autonomous as its function.

Some HIMATIKA FMIPA UNY activities which are aimed to students of Mathematic Education Department are Platina, Kurfabeta, Working Discussion (Musker), Raker, Famgath, Professional Seminar, general assembly, Open House, questions bank duplication as well as course book, and others.Besides that, HIMATIKA FMIPA UNY also holds activity that involves non-Mathematic Education Department students and public, such as blood donors and contest as well as mathematics seminar (LSM) which are held once a year. HIMATIKA FMIPA UNY also sends delegation to the activities of IHMSI, IKAHIMATIKA, and others regularly. Further information about HIMATIKA FMIPA UNY can be obtained by visiting this websitehttp://himatikauny.org.

B. Activities and Organizations in Faculty Level

Student's activities and organizations in MIPA UNY Faculty cover Student Consideration Board (DPM) and Student Executive Board FMIPA. Related to

students interest and talent, there are some students' activity units (UKM) which are:

1. UKM Nature Devotee HANCALA (http://hancala.student.uny.ac.id/).
2. UKM Islamic Spirituality HASKA (http://haska.student.uny.ac.id/)
3. UKM Theater SEKRUP (https://sekrup-uny.blogspot.com/)
4. UKM Research KSI MIST
5. UKM Bird Observer BIONIC (https://bionicuny.blogspot.com/).

Secretariat of organizations above are in FMIPA UNY blocks.

C. Activities and Organizations in University Level

Student Executive Board – Student Republic (BEM REMA), Student Representative Council (DPM), as well as Student Consultative Assembly (MPM) are students organization in Universitas Negeri Yogyakarta level. Besides that, to accommodate interest, talent, and student's achievement coaching, there are some Students Activity Unit (UKM) in university level that can be categorized based on these scopes.

Reasoning Field

To respond the science and technology development, UNY does special strategy to accommodate as well as develop all the students' potential and interestin science and technology field. Activities in reasoning field in UNY covers some UKM, which are:

1. UKM Research
2. UKM Student Press Institute "Ekspresi"
3. UKM Radio "Magenta FM"
4. UKM Foreign Language
5. UKM Technology Engineering

Art Field

Students' creativity and potential in art field are done by UNY through several UKM which are:

1. UKM Student Family of Tradition Art (Kamasetra)
2. UKM Student Choir (PSM) "Swara Wadhana"
3. UKM Music "Sicma"
4. UKM Fine Arts and Photography (Serufo)
5. UKM Literature and Theater Study Unit (Unstrat)

Sports Field

Sport ability development for students has purposes to maintain fitness and students' health as well as support UNY students achievement in sports field. Sports activities are coordinated in several UKM, which are:

1. UKM Gymnastics
2. UKM Chess
3. UKM Swimming

4. UKM Archery
5. UKM Hockey
6. UKM Table Tennis
7. UKM Field Tennis
8. UKM Judo
9. UKM Pencak Silat
10. UKM Karate
11. UKM Tae Kwon Do
12. UKM Nature Devotee Madawirna
13. UKM Volleyball
14. UKM Basketball
15. UKM Sepak Takraw
16. UKM Football
17. UKM Baseball-Softball
18. UKM Marching Band Citra Derap Bahana
19. UKM Badminton

Welfare Sector and Special Interest

Students coaching in this field is a mode to develop students welface both physically and spiritually, as well as special interest that the students have.

1. UKM Islamic Spiritual Activity Unit(UKKI)
2. UKM Christian Student Fellowship (PMK)
3. UKM Catholic Student Family Association (IKMK)
4. UKM Hindu Dharma Student Family (KMHD)
5. UKM Racana WR. Supratman and Racan Fatmawati Scout
6. UKM Indonesian Red Cross Volunteer Corps (KSR-PMI)
7. UKM Student Regiment (Menwa) "Pasopati"
8. UKM Student Union "Kopma UNY"
9. UKM Entrepreneurship (KWU)

D. Activities and Organizations Cross University

There are some cross university Mathematic students organization that can be a medium to broaden the relation and enhance students experiences, such as:

1. Indonesian Mathematics Student Association (IKAHIMATIKA) (https://ikahimatika.or.id/)
2. Indonesian Statistics Student Association (IHMSI) (https://twitter.com/ihmsi?lang=en)

6 Supporting Facility

Supporting facilities can be accessed/ used by students of Mathematics Education Study Progam UNY as the effective provisions which are.

A. Library

UPT Library Yogyakarta State University provides some kind of services for UNY academic community as well as public out of UNY. UNY library public catalog can be accessed online by this website http://library.uny.ac.id/sirkulasi/, while direct access can be done in a library building which is located about 150 meters in the east of Mathematics Education Study Program UNY. UNY Library also has subscribed to some journal both national and international, such as JSTOR, SPRINGER LINK, EBSCO, PROQUEST, and others, that can be accessed by the internal network only for UNY academic community (http://sso.uny.ac.id).

Moreover, UNY also has Repository Internal that contains scientific paper, bachelor degree thesis, thesis, dissertation, research, and journal that are from UNY academic community that can be accessed by this website http://e.library.uny.ac.id/. For bachelor degree thesis, thesis, and dissertation, the full script access can only be done in library building.

Library service for Mathematics Education Study Program UNY academic community is also provided by MIPA faculty library which is located in the 3rd-floor Laboratory and Integrated Library FMIPA UNY. All the students of FMIPA UNY Mathematic Education Study Program can be the library member automatically. Information about catalog and library services are provided in http://library.fmipa.uny.ac.id/.

B. Sport Facility

Universitas Negeri Yogyakarta (UNY) Blocks in Karangmalang has some sports facilities that are complete enough and can be used by the students as the provisions, such as:

1. Swimming pool
2. Sportsmart/sport equipment shop
3. Sports dormitory
4. Tennis Indoor field
5. Archery field
6. Basketball field
7. Public Sport Garden

8. Soccer field and athletics
9. Fitness Center

C. Prayer Facility

UNY Mujahidin Mosque area is 1.920 m^2 and capable of accommodating up to 3.500 pilgrims which is located exactly in the west of the MIPA Faculty/ Mathematics Education Study Program campus. The mosque that has been renovated three times with early architecture like Nabawi Mosque becomes the Muslim academic community praying center in Mathematic Education Study Program. Besides that, there is an Al-Furqon prayer room inside the MIPA UNY faculty block.

Prayer places for other religions are easy to find around the UNY Campus, such as Bintang Samudera Chapel in Sagan, St. Yohanes Rasul Church in Pringwulung, Gereja Kristen Indonesia (GKI) Gejayan, Jagatnatha Sorowajan Temple, Klenteng Poncowinatan, and others.

D. Student and Multicultural Center (SMC)

UNY Student and Multicultural Center (SMC) building is the UNY student's activity center that gives freedom for creativity and interaction to each other. Besides the rooms for students affair organizations at university levels such as BEM and UKM, this three-floor building is also provided by meeting hall and broad lobby. This facility is located 100 meters in the north of Mathematics Education Study Program/ UNY MIPA Faculty.

E. Banking Facility

Some banks have branch offices/ cash in UNY campus which are Bank BPD DIY and bank BNI, both of them are in Gejayan street (about 400 meters in the east of Mathematics Education Study Program). moreover, there are Automatic Teller Machines (ATM) in surrounding Mathematics Education Study Program, which is Mini Market Kopma UNY and Plaza UNY.

F. Foods and Everyday Needs

Mini Market KOPMA UNY Union provides some students' needs start from stationary, everyday tools and equipment, snacks, drinks, as well as a photocopy. It is placed 50 meters in Mathematics Education Study Program/ MIPA UNY Faculty.

Food Court UNY is the snacks and food center that are organized beautifully, complete with leafy tree, ornamental plant, joglo building, and a number of gazebos. It is very comfortable to be used to eat some food or casual conversation. It is placed in East of Mathematics Education Study Program/ MIPA UNY Faculty.

Garden Café UNY is a foods and beverages stall that is very suitable to be a discussion and gathering place for students, as well as provided with hot spot area, LCD, Projector, and cable TV. It is placed 50 meters in the north of Mathematic Education Study Program/ MIPA UNY Faculty.

Plaza UNY is a four-floor building that is located in the east of Mathematica Education Study Program/ MIPA UNY Faculty. Plaza UNY consists of mini-mart, clothes, electronic repair, and reflexology service.

G. Accommodation

UNY Hotel is located inside the campus area, exactly beside MIPA UNY Faculty. This hotel offers comfort, cleanliness, friendliness, and a strong academic feel. As for the students who come from outside the region, the public around UNY (which are Karangmalang, Kuningan, Santren, Karangasem, Deresan, Mrican, Klebengan, and Samirono) provides boarding house with some facilities and prices.

H. Health Facility

UNY Health Facility (HF) is a technical implementation unit that has job giving health service for students, lecturers, and educational staff in the UNY environment. Some services provided are medical examination, medication, health consultation, simple laboratory examination (cholesterol, blood glucose, gout, pregnancy tests, blood type tests), examination for pregnant women, service for First Aid to any big scale event, public service, as well as health education by calling the phone number 0274-586168 ext. 1324.

Besides the health facility, UNY also has physical therapy clinic which is located in the west of GOR UNY. The physical therapy clinic handles any kind of injuries, sprains/ twisted, aches, and so on. This clinic opens at 09.00 to 17.00 WIB and is served by professional therapist.

The students who need emergency and inpatient services, there are some hospitals around UNY, which are:

1. RSUP Dr. Sardjito, Kesehatan street 1, Sendowo, Yogyakarta (± 2,5 km from FMIPA UNY).
2. RS Panti Rapih, Cik Di Tiro Street 30, Yogyakarta (± 1 km from FMIPA UNY).
3. Jogjakarta International Hospital (JIH), Pajajaran/North Ring Road street 160 (± 4 km from FMIPA UNY).
4. RS Siloam Yogyakarta, Urip Sumoharjo street (± 1,5 km from FMIPA UNY).
5. RS Specialized Surgical An-Nur, Colombo Street (± 500 m from FMIPA UNY).
6. RS Mata Dr. Yap, Cik Di Tiro Street 5 (± 1,5 km from UNY campus).

J. Counseling Guidance, Career, and Law

Counseling guidance and psychological well-being services for UNY academic community are provided by the Guidance and Counseling Services

Technical Implementation Unit (UPT LBK), placed in Karangmalang Yogyakarta, phone 0274-589536, 386168 Psw. 314. This service is also able to be accessed online by http://upt-lbk.uny.ac.id. Face to face service is given every Monday to Friday at 09.00-13.00 WIB or outside the provided time can use appointment time. The students can get counseling services (except psychology tests) for free.

Career development, including employment, career guidance, and consultation, as well as tracer study, are provided by UNY Career Development Center/ CDC through http://ppk.lppmp.uny.ac.id. Besides that, CDC UNY also conducts Job Fair twice in a year, followed by dozens of companies.

UNY also has UPT Law Consultation and Help that can be contacted by phone number 0274-586168 Psw. 420 or 0274 545097. Profile, as well as further information about this service, can be accessed at http://lkbh.uny.ac.id.

K. Book Shop

UNY Press publication books can be bought in UNY Book Shop, 3rd Floor Plaza UNY building Colombo street. As for the general publication books can be obtained in some book shops around UNY, such as Social Agency, Toga Mas, and Gramedia. A cheap book market, that sells new or used books at negotiable price, can be found in sector Terban (Kahar Muzakir Street) and Taman Pintar Yogyakarta (Sriwedani Street).

VISION UNY

Becomes the educational university, based on faith, independence, and intelligence in 2025

MISSIONS UNY :

1. *Perform academic education and profession in the educational field that are excellent, creative, and innovative to produce a pious, independent, and intelligent person.*
2. *Perform academic education, profession, and vocation in the non-educational fields that are excellent, creative, and innovative to produce a pious, independent, and intelligent person.*
3. *Perform a research program to find, develop, and spread widely the knowledge, technology, art and/or sport, which gives prosperity for individual and public, and support the regional and national development, as well as contribute in giving a solution for regional and global problems creatively and innovatively based on faith, independence, and intelligence.*
4. *Perform public service and empowerment that encourages people's potential development, public and nature to create public prosperity based on faith, independence, and intelligence.*
5. *Perform governance and services that are good, clean, and prestigious in university autonomy enforcement to actualize excellent, creative, and innovative university, based on faith, independence, and intelligence.*
6. *Create a process and learning environment that capable of empowering the students creatively and innovatively to do the long last learning based on faith, independence, and intelligence.*
7. *Develop cooperation with other institution, both national and international, creatively and innovatively to increase the quality of tridharma enforcement by the principles of equality and beneficial for each other based on faith, independence, and intelligence.*