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Merdeka  
INDONESIA JAYA



# PROSPECTUS

UNIVERSITAS MUHAMMADIYAH SURAKARTA

INDONESIA



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# Welcome to **UMS**

UNIVERSITAS MUHAMMADIYAH SURAKARTA



Universitas Muhammadiyah Surakarta (UMS) is a higher education institution under the Muhammadiyah association which was established on October 24, 1981, as a form of change from IKIP Muhammadiyah Surakarta.

Initially, UMS was a Faculty of Teacher Training and Education (FKIP) Surakarta branch of the Muhammadiyah University of Jakarta which was established in 1958. At that time, several majors opened were General Education, General Economics and Islamic Religious Education at the Baccalaureate level.

After obtaining a permit to establish in 1965, the Surakarta Branch of FKIP Muhammadiyah became two higher education institutions, namely the Teacher Training and Education Institute (IKIP) Muhammadiyah Surakarta and the Muhammadiyah Institute of Islamic Religion (IAIM) Surakarta.

Two years later, in 1967, IKIP Muhammadiyah Surakarta added another major, namely Civil Law. In addition, in the same year, IKIP Muhammadiyah Surakarta received permission as the central of

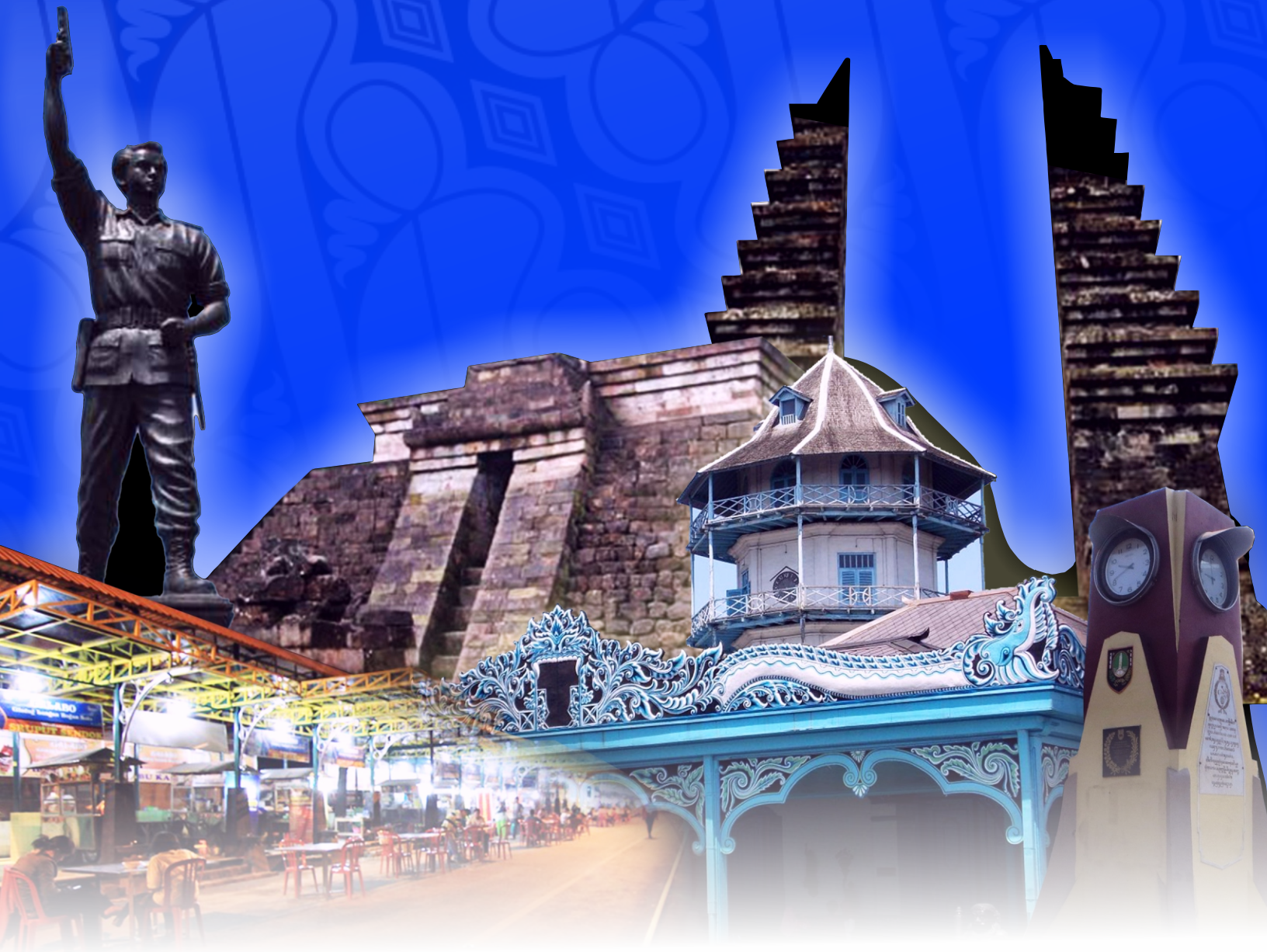
Muhammadiyah Universities throughout Central Java which consisted of IKIP Muhammadiyah Klaten, Magelang, Kudus, Purwokerto, Kebumen, Wates, Temanggung, Wonogiri, Sukoharjo, Karanganyar, Banjarnegara, Prambanan, Purbalingga, Wonosari, and Sragen. After developing, these branches eventually became independent universities.

In 1979, Drs. H. Mohamad Djazman, Rector of IKIP Muhammadiyah Surakarta at that time initiated the establishment of Muhammadiyah University of Surakarta (UMS) by combining IKIP Muhammadiyah Surakarta and IAIM Surakarta. So two years later, 1981, IKIP Muhammadiyah Surakarta changed its name to Universitas Muhammadiyah Surakarta (UMS). At that time, UMS managed several faculties, such as the Faculty of Teacher Training and Education (FKIP), the Faculty of Economics, the Faculty of Law, the Faculty of Engineering, and the Faculty of Islamic Religion (FAI). Then, in line with the demands and needs of the times, currently, UMS continues to add and provide superior study programs at the undergraduate, postgraduate to doctoral levels.

UMS IS LOCATED IN

**SOLO**

**INDONESIA**



**THE SPIRIT OF JAVA**

FEEL THE TASTE OF JAVANESE CULTURE



# WHY

# CHOOSE UMS



ACCREDITED BAN-PT A



AUN-QA CERTIFIED



TOP ISLAMIC UNIVERSITIES  
IN THE WORLD



TOP PRIVATE UNIVERSITIES  
IN INDONESIA



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# PROSPECTUS

MASTER OF PHARMACEUTICAL SCIENCES

UNIVERSITAS MUHAMMADIYAH SURAKARTA





# ABOUT

Students in the Master program of Pharmaceutical Sciences in Universitas Muhammadiyah Surakarta are trained to have a scientific career in drug research and development. The curriculum was developed to enable the graduate of the programs (M.Pharm) to have sufficient knowledge and hands on skills to be able to work independently as a scientific researcher.

The Master program of Pharmaceutical Sciences aims at:

1. Attaining a deeper insight in pharmaceutical sciences that will enable students to integrate knowledge in drug discovery, development, formulation, and production.
2. Attaining skills to perform scientific research in drug discovery, development, formulation, and production, using relevant methods and techniques, and stimulating a critical attitude towards the interpretation of data of scientific research.
3. Attaining an attitude of problem solver and decision maker in order to function well in a team.
4. Attaining skill to present the results of scientific research in drug discovery, development, formulation, and production by oral presentations as well as written reports as scientific publications.

A photograph of laboratory equipment. In the foreground, there are several pipettes (two white Gilson ACURA 825 and two blue) mounted on a white stand. To the left, there is a blue metal rack holding several small vials with blue caps. In the background, there are several clear plastic storage boxes with orange and red labels, some containing small vials. The background is a plain, light-colored wall.

# FUTURE CAREERS

Although the course in Master of Pharmaceutical Sciences is primarily focused on understanding pharmaceuticals, the skills being learned will translate to a range of chemistry-related or biomedical research opportunities which will be beneficial in industries from households to cosmetics or food manufacturing.

Some of the graduate destinations are as follow:

Biomedical researcher/university lecturer; product developer/formulation scientist; quality assurance and quality control chemist; medicinal chemist; skincare and cosmetics developer; regulatory affairs associate



The Master program of Pharmaceutical Sciences Program consists of 40 credits compulsory courses and 2 credits elective courses. M.Pharm students with non-linear background of undergraduate degree will be offered tailored program to align their previous training to basic pharmaceutical sciences.

The Master's program of Pharmaceutical Sciences curriculum also unique as it offers students to have practical experiences in handling mini research projects in one of the following options: nanotechnology drug delivery system, pharmacology (animal modelling), protein extractions, cell culture technique, natural product chemistry, and pharmaceutical analysis.

The course distribution on each semester as follows:

<b>Semester 1 (16 credits)</b>
Islamic ethics and Philosophy (3 credits)
Advanced Physical Pharmacy (2 credits)
Advanced Drug Delivery and Biopharmaceutics (3 credits)
Pharmaceutical Technology and Formulation Development (3 credits)
Pharmaceutical and Biomedical Analysis (3 credits)
Natural Product Chemistry (2 credits)
<b>Semester 2 (14 credits)</b>
Research methods and Statistics (2 credits)
Pharmacokinetics and Pharmacodynamics (3 credits)
Optional Course: Microbiology/ Phytotherapy/ Immunology (2 credits)
Pharmaceutical Biotechnology (2 credits)
Product Development(2 credits)
Good Manufacturing Practices (2 credits)
Management and Decision Making(1 credits)
<b>Semester 3 (6 credits)</b>
Research Proposal (2 credits)
Internship (mini project) (4 credits)
<b>Semester 4 (6 credits)</b>
Thesis (6 credits)

The general outline of the program is indicated in the table below (more details can be found on the (<https://mfarm.ums.ac.id/en/academic/>)).

## PROGRAM STARTS

### February 2022

The master program is offered in two terms, September or February. Prospective students are advised to check the Masters of Pharmacy website for more information

<https://mfarm.ums.ac.id/en/home/>

UMS International student's office assigns International student's liaisons to assist prospective students, on pre-departure, on arrival (e.g. visa or help with housing) and bridging program

## DURATION

The program has duration for two years (42 credits).

## ENTRY REQUIREMENTS

### Degree-level qualifications :

1. Preference may be given to those who have undergraduate degree in pharmacy
2. Applications from high calibre candidate with life-science, chemical science, or medicine backgrounds are welcome.
3. Evidence of training or laboratory experience may be an advantage

### English Language Requirements :

You may need to provide evidence that you meet the university's requirements:

Test	Minimum Overall Score
IELTS Academic	5
TOEFL iBT	90
ITP test (UMS)	450

### Supporting documents

You will be required to supply supporting documents with your application, including references (in English) and an official transcript (in English).

### Performance at interview

Interviews are normally held as part of the admissions process. Applicants will be subjected for an online interview, which will be conducted by the Head of the Master program of Pharmaceutical Sciences.





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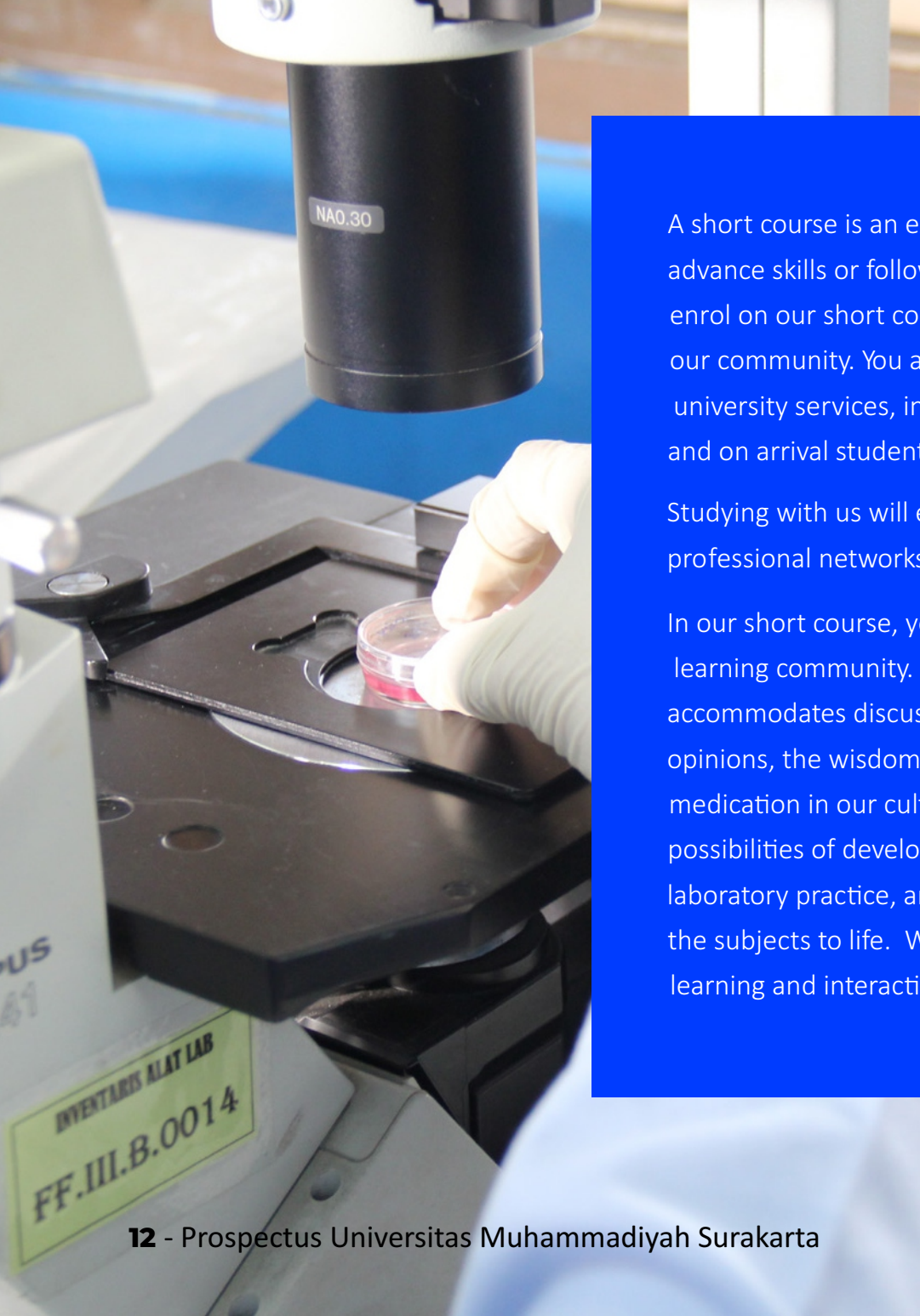


# PROSPECTUS SHORT COURSE

Drug Discovery and Product Development  
from Natural Resources

FACULTY OF PHARMACY UNIVERSITAS MUHAMMADIYAH SURAKARTA

# WHY JOINING OUR SHORTCOURSE



A short course is an excellent way to gain new expertise, advance skills or follow a passion. When you enrol on our short course, we welcome you into our community. You also have access to various university services, including pre-departure advice and on arrival student housing.

Studying with us will expand your social and professional networks.

In our short course, you will be part of an enthusiastic learning community. The design of our curriculum accommodates discussion and debate to share opinions, the wisdom use of natural medication in our culture is challenged and new possibilities of development are explored. Internship, laboratory practice, and mini projects bring the subjects to life. We encourage peer-to-peer learning and interaction during the short course.



# SHORT COURSE

## SPECIFICATIONS

### DURATION

Fulltime 4 weeks (20 credits)

### TIME

#### *Course*

Morning sessions : 09.00-12.00 WIB

Afternoon session : 13.00-17.00 WIB

Includes : tea, coffee, snacks,  
and lunch.

*Internship and Laboratory Practical*  
to be announced

### LOCATIONS

#### ● SURAKARTA

(Classrooms and Laboratories)

#### ● SUKOHARJO

(Excursions and internship in traditional medicines and food manufacturers)

#### ● KARANGANYAR

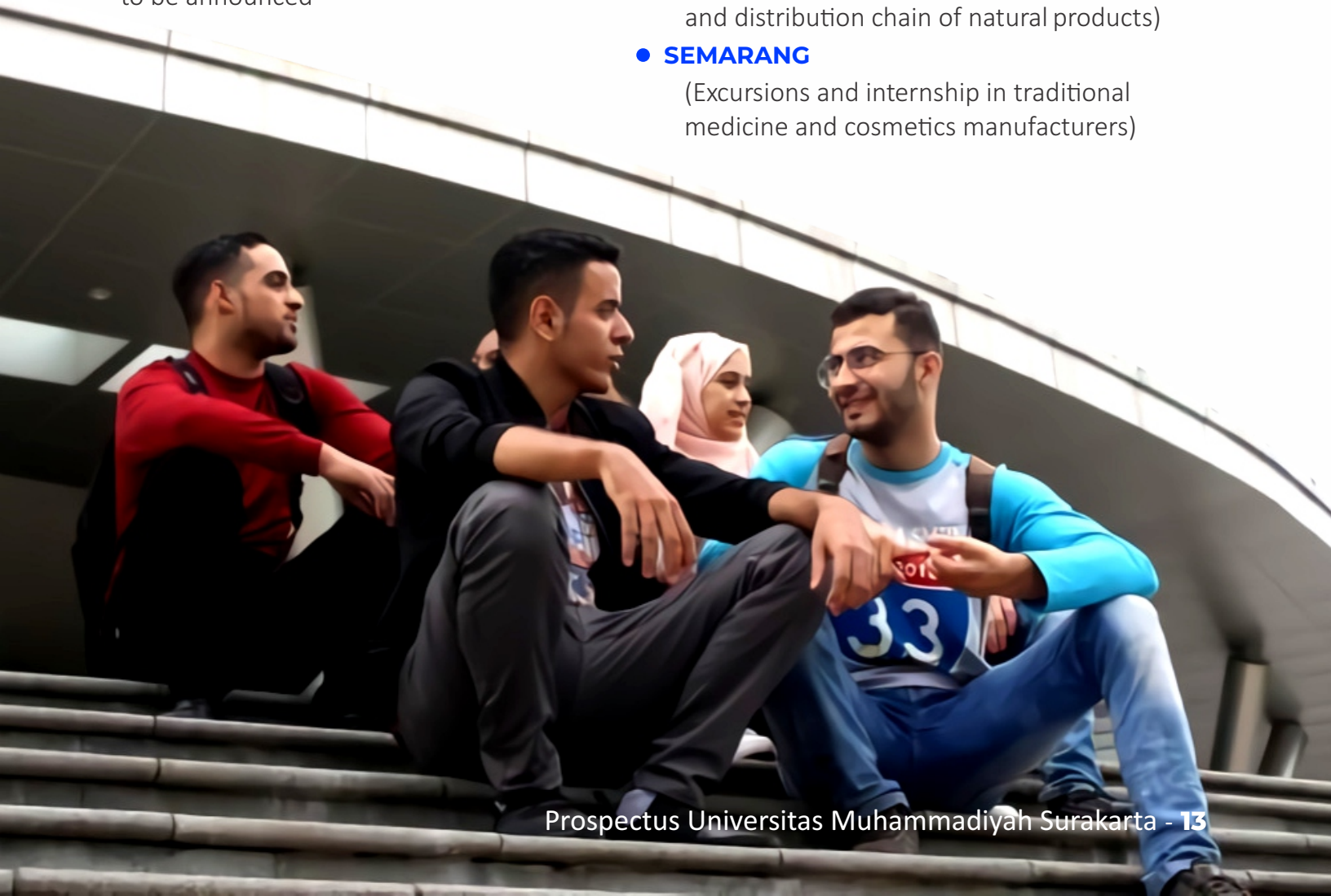
(Excursions and internship in the practice of phyto-therapeutics)

#### ● JOGJAKARTA

(Excursions and internship in history, resources, and distribution chain of natural products)

#### ● SEMARANG

(Excursions and internship in traditional medicine and cosmetics manufacturers)



# LOCATION

## OF OUR SHORT COURSE



### **SURAKARTA AND SUKOHARJO**

Classical course & laboratory practice of product formulations will be held in the Faculty of Pharmacy UMS.



### **KARANGANYAR**

The Internship and Excursion programs facilitate students to study in Indonesian Center for Research and Development of Medicinal Plants and Traditional Medicine, which is located in Tawang Mangu, Mount Lawu. The mountain is well known for its scenic area and natural panorama.

Students will also study on how the medicinal plants are used as part of modern medical practice



### **JOGJAKARTA**

The Internship and Excursion programs also introduce student to the history of natural medicines in Borobudur Temple and The Palace of Jogjakarta.



### **SEMARANG**

The Internship and Excursion programs in drug and cosmetics manufacturers in Semarang accommodate students to incorporate their knowledge into practice.



# COURSE OVERVIEW

- **Are you herbal medicine enthusiasts, or simply interested in using natural products?**

Short Course in Drug Discovery and Product Development from Natural Resources aims to provide you with the hands-on and specialised skills in the discovery of new natural products from natural resources as well as their derivative uses especially in the health including cosmetics and foods sectors.

Natural Product Development is a multidisciplinary and collaborative area of study that integrates basic natural product chemistry and biology (pharmacognosy), basic phyto-therapeutics, and pharmaceutical technology

The short course is designed to enable you to work in collaboration with experienced practitioners, industry experts, and academic researchers. The curriculum is also designed to create academic environment which accommodates the problem-solving practice of natural resources production in the pharmaceutical, cosmetics and food industries.

The short course's curriculum also emphasizes on the safety and efficacy issues on commonly used natural products as medicines.

- **Who is it for?**

Our short course is designed for prospective delegates who are currently enrolled as pharmacy, life sciences, chemistry, and medical undergraduate students regardless their year of study Our short course is also welcome candidates who are currently enrolled as postgraduate or postgraduate diploma student in pharmacy, health, life sciences, and chemistry.





# WHAT WILL I LEARN

**After successfully completing this course, you will be able to:**

- 1** Obtain broader knowledge in the use of natural product as medicines and skills to explore the potential use of natural products with the relevant literatures.
- 2** Obtain broader knowledge on pharmacological action of natural products constituents and their practical use as medications.
- 3** Obtain specific skills on the practical aspects related to the manufacture of plant-based drugs, quality control and drug formulation,
- 4** Obtain specific skills on the practical aspects related to the manufacture of plant-based cosmetics/foods, quality control and formulation,
- 5** Obtain skills to manage a mini project and present the results by oral presentations as well as written reports.



# CURRICULUM

1

## PHARMACOGNOSY (4 credits)

Course description: This course focuses on the origin, identification, isolation, and characterisation of bioactive molecules from natural resources (medicinal herbs, animal and bacterial products)

- Classical course (2 credits)
- Internship (2 credits)

2

## NATURAL PRODUCT BIOCHEMISTRY (4 credits)

Course description: This course studies the different pathways of primary and secondary metabolism in plants

- Classical course (2 credits)
- Internship (2 credits)

3

## NATURAL PRODUCTS DEVELOPMENT & FORMULATIONS (4 credits)

Course description: This course integrates knowledge of raw materials, formulation, quality assessment, and good manufacturing practice in developing products from natural resources.

- Classical course (2 credits)
- Laboratory practical (2 credits)

4

## NATURAL PRODUCTS DEVELOPMENT & FORMULATIONS (4 credits)

Course description: This course bridges the information gap between traditional knowledge and evidence based data in natural medicines to make decisions in developing safe and effective therapy.

- Classical course (2 credits)
- Internship (2 credits)

5

## NATURAL PRODUCTS DEVELOPMENT & FORMULATIONS (4 credits)

Course description: This course focuses on the use bioactive molecules from natural products in cosmetic and food products.

6

## NATURAL PRODUCTS DEVELOPMENT & FORMULATIONS (4 credits)

Course description: This course provides a background of the understanding, implementation, and future of nanotechnology as well as its applications in natural product formulations.

# ELIGIBILITY

## ● ENGLISH REQUIREMENTS

You will need a good level spoken and written English to enroll on this course.

## ● YOU WILL ALSO NEED TO PROVIDE

- 1** Scan of Student ID
- 2** Passport-size photograph
- 3** Endorsement letter from your institution (signed by Dean, Vice Dean, or the Head of Study Program) stating whether the short course-earned credits can be transferred-1 pag

TEST	MINUMUM OVERALL SCORE
IELTS Academic	5
TOEFL iBT	90
ITP Test (UMS)	450

## FAKULTAS FARMASI UMS

Jl. Achmad Yani, Tromol 1, Pabelan, Kartasura, Sukoharjo, Central Java 57162, Indonesia

Email : [mfarm@ums.ac.id](mailto:mfarm@ums.ac.id) Whatsapp : +6285799417729 <https://mfarm.ums.ac.id/en/home/>





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# PROSPECTUS PROSPECTUS

MASTER OF PSYCHOLOGY

UNIVERSITAS MUHAMMADIYAH SURAKARTA

# ABOUT ABOUT ABOUT ABOUT



The Master of Psychology is a master program granted A (excellent) accreditation by Indonesian Higher Education Accreditation Board. The 13 teaching staffs includes professors, associate professor, and assistance professor from various psychological studies. The program provides comfortable facilities consisting of studying rooms, laboratories, library, hall & park, sport & prayer facilities, bookstore, and health facility. Besides, there are a canteen, parking lots, student rooms, and psychology consultation services for students and public.

The Master of Psychology school is situated at very strategic site that is conveniently accessed from various directions of Yogyakarta, Semarang, and Solo by various means of transportation. Inter provincial Bus lines passing through Ahmad Yani Street make students convenient to reach the place. Purwosari train stations that is located 2 kilometer eastward add another access. More importantly, the school is also accessibly from Adi Sarmomo International Airports facilitating both national and international students to reach the school more comfortably. Additionally, the current trends of online transportations like cars and motorbikes are also easy to find.

The current vision of Psychology Faculty is to be an excellent psychology faculty at national and Asian level to create prosperous society based on local wisdom and Islamic values by 2029. The learning process implements various methods of active-learning using several learning modes like direct face-to-face and online meetings that are equipped with adequate online reference facilities. Moreover, the program also possesses many partnerships to facilitate students to have field works to gain real experiences in workplaces. The partnerships have been established with hospitals, educational institutions, social institutions, local governments, ministries, state-owned enterprises, private sectors, and other organizations. The partnership is also made with both national and international psychological academic organizations such as Asosiasi Penyelenggara Pendidikan Tinggi Psikologi Indonesia (AP2PTPI 1),





# THE VISION

The Master of Psychology vision is to be an excellent master degree in the development of human resources and psychological study on the treatise of inter-indigenous in Islamic values as well as culture varieties. The vision is manifested in a series of missions as follows:

1. Creating the foundation system and developing the resource to excel in the study and psychology research development.
2. Organizing Three Goodness in Higher Education to produce qualified academic scientists in the field of education, research, and social services.
3. Building a laboratory for study and psychology research on the treatise of inter-indigenous.

## PROFILE

The main profile of Psychology Master's degree alumni is educators, whether in the level of kindergarten, primary school, junior high school, senior high school, and higher education. Also, they consider themselves as non-clinical psychology consultants, psychology scientists, and researchers.



# CURRICULUM

Semester	Course Code	Semester 1	Credit
I	MPSI 30001	Philosophy of Science	2
I	MPSI 30002	Qualitative Research Methods	3
I	MPSI 30003	Statistics and Data Analysis	3
I	MPSI 30006	Cross-Cultural Psychology	2
I	MPSI 30007	Theoretical Approach on Psychology	2
I	MPSI 30014	Neuropsychology1	3
I	MPSI 30015	Health Psychology1	3
I	MPSI 30009	Psychology of Character Education2	3
I	MPSI 30010	Education and Student Center Learning2	3
<b>Semester 2</b>			
II	MPSI 30004	Quantitative and Experimental Research Methods	2
II	MPSI 30015	Construction and Development of Psychological Measurement	3
II	MPSI 30016	Contemporary Issues of Clinical Psychology1	2
II	MPSI 30017	Clinical Intervention Concepts1	2
II	MPSI 30013	Macro Approach on Clinical Psychology1	3
II	MPSI 30011	Contemporary Issues of Educational Psychology2	2
II	MPSI 30012	Learning and Memory2	2
II	MPSI 30010	Education and Student Center Learning2	3
II	MPSI 30019	Positive Psychology	2
II	MPSI 30022	Marriage and Family Psychology	2
II	MPSI 30024	Indigenous Psychology	2
<b>Semester 3</b>			
III	MPSI 30018	Special Child Education1	2
III	MPSI 30020	Behavior Change Models1	2
III	MPSI 30021	Disasters Psychology1	2
III	MPSI 30023	School Counseling1	2
III	MPSI 30025	Thesis	6
<b>Total Credit</b>			<b>42</b>



## PROGRAM STARTS

Semester I academic calendar starts in September, while semester II starts in February. The enroll of new students is opened all year round. The background of students should from the department of science, engineering, or technology. However, a matriculation or preparation class may be made if you are not from the chemical engineering department. UMS International student's office assigns international student's liaisons to assist prospective students, on pre-departure, on arrival (e.g. visa or help with housing) and bridging program.

### DURATION

The program has duration for two years (42 credits).

### ENTRY REQUIREMENT

#### ***Degree-level Qualification***

For degree level qualification for psychology scientist , preference maybe given to those who have undergraduate degree in multiple entry.

#### ***English Language Requirements***

You may need to provide evidence that you meet the university's requirements by having one score of these:

IELTS Academic (5)

TOEFL IBT (40)

UMS ITP Test (450)

### SUPPORTING DOCUMENTS

You will be required to supply supporting documents with your application, including two references and an official transcript (in English).

### PERFORMANCE AT INTERVIEW

Interviews are normally held as part of the admissions process. Applicants will be subjected for an online interview, which will be conducted by the Head of the Master Program of Psychology .

Prospective students are advised to check the Master of Psychology website for more information (<https://mpsi.ums.ac.id/en>)



# CONTACT US

## Fakultas Psikologi

Universitas Muhammadiyah Surakarta  
Jl. A. Yani, Pabelan, Kartasura, Tromol Pos 1,  
Surakarta,  
Central Java, INDONESIA 57102  
<https://mpsi.ums.ac.id/en/>







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# PROSPECTUS SHORT COURSE PROGRAM

## Indigenous Psychology

FACULTY OF PSYCHOLOGY UNIVERSITAS MUHAMMADIYAH SURAKARTA



# OBJECTIVE

The purpose of this program is to equip our students with the knowledge of Indonesian local wisdom, indigenous concepts in psychology, Javanese framework on personality, and to provide our students with skills on using the indigenous theory in analyzing relevant problems.

## CURRICULUM

### **Islamic Psychology (3 credits)**

The purpose of this program is to equip our students with the knowledge of Indonesian local wisdom, indigenous concepts in psychology, Javanese framework on personality, and to provide our students with skills on using the indigenous theory in analyzing relevant problems.

### **Marriage and Family Psychology (3 credits)**

You will learn the basic concepts of marriage and family in psychology from Javanese perspective such as how Javanese couples balancing their work-family life.

### **Eastern Personality Psychology (3 credits)**

Geographically, Indonesia is included in the eastern region which has many tribes, cultures, and religions that uphold Bhineka Tunggal Ika. In this courses, you will learn how the differences in religious and cultural values from different area of Indonesia create a uniqueness in how personality is shaped in Indonesian society.

### **Javanese culture-based Community Psychology (3 credits)**

Indonesia is very strong and has a unique concept of collectivity which brings a warm atmosphere. In this course, you will gain more knowledge on how Javanese people build up a really harmonious society. For example, you will learn about the concept of “guyub rukun”.

### **Javanese Culture-based Emotion Regulation (3 Credits)**

The “mulur mungkret” tradition as the science of managing emotions in Javanese culture





# PARTICIPANTS

The program is designed for postgraduate students (master's level) from any majors such as health science, social science and humanities.

# ACTIVITIES

Our Javanese-based emotion management program (“mulur-mungkret”) is designed for both self-development and community development program. This program will be carried out in 4 weeks. Within this period of time, you will gain more knowledge, practices (Javanese Language, Traditional Batik) and visit some well-known destinations in Central Java and Yogyakarta such as Batik Laweyan, Keraton, Museum Radya Pustaka, Sendratari Ramayana, Prambanan Temple, Borobudur Temple

## TIME LINE PROGRAM

Week	Activity
I	Welcoming ceremony and introduction
	Introduction to Islamic and Indigenous Psychology
	Pesantren : Islamic and Indigenous Concept Psychology
II	Language and Indigenous Psychology
	Practice of Javanese values in the Psychological Process
	Language : Indigenous Psychology in the Community (family setting)
	Language : Indigenous Psychology in the Community (Pasar Gede/ Pasar klewer Pasar Beringharjo)
III	Javanese concept emotion regulation (Mulur mungkret)
	Javanese concept emotion regulation practice
	Emotions and Batik
	Batik Practice
IV	Surakarta Community Behaviour (City Tour)
	Presentation
	Closing



# ASSESSMENT & SERTIFICATE

Assessment will be conducted through group discussions, classroom activities, questions and answers sessions, and final group projects as guided by the tutors. You will be awarded an official certificate from the Faculty of Psychology Universitas Muhammadiyah Surakarta (15 credits course) if you attend above 75 percent of the classes.

**FAKULTAS PSIKOLOGI UMS**

**Jl. Achmad Yani, Tromol 1, Pabelan, Kartasura, Sukoharjo, Central Java 57162, Indonesia**

Email : [mpsi@ums.ac.id](mailto:mpsi@ums.ac.id)

<https://mpsi.ums.ac.id/>





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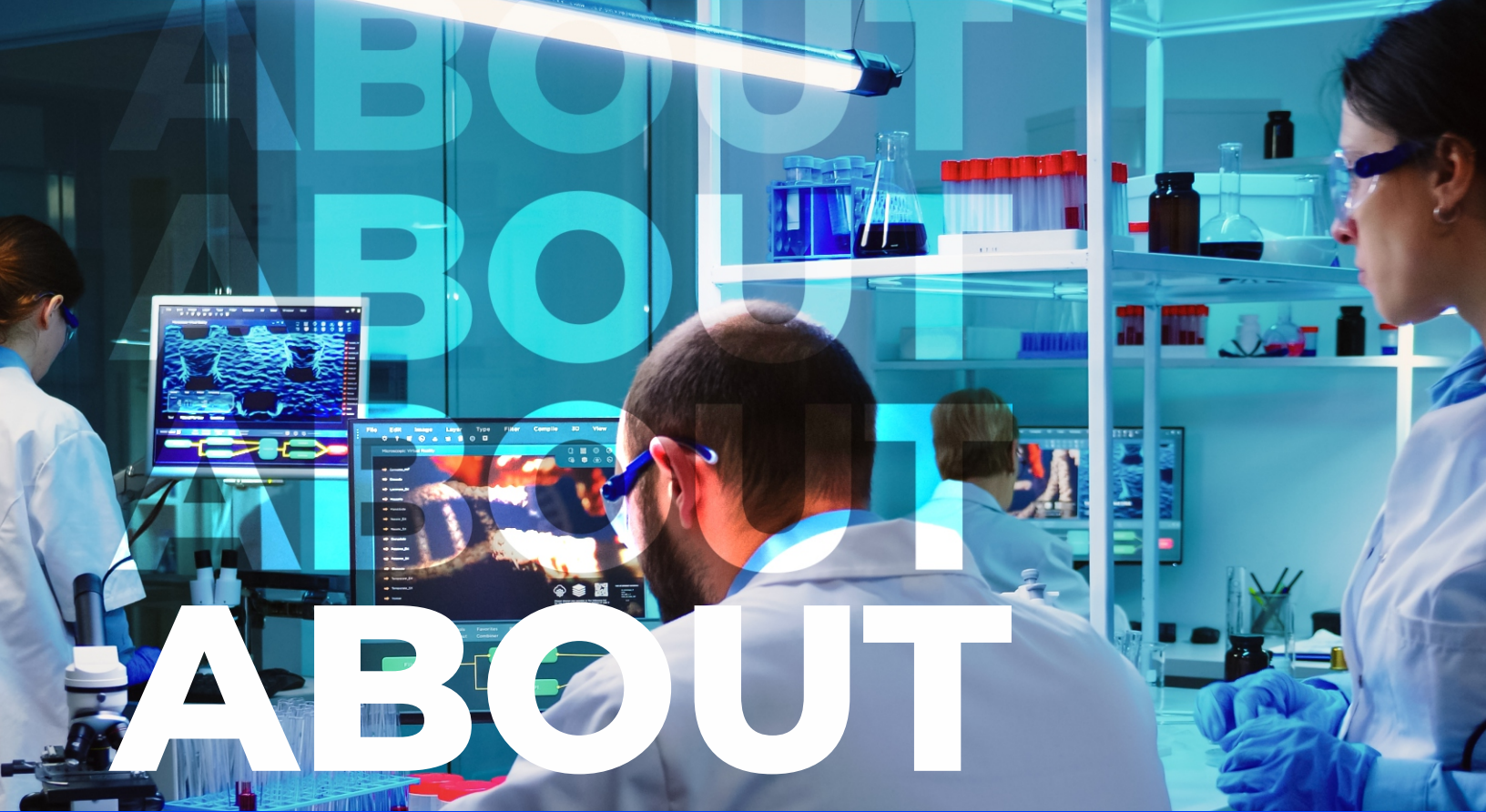


# PROSPECTUS

## MASTER OF CHEMICAL ENGINEERING

UNIVERSITAS MUHAMMADIYAH SURAKARTA





The Master of Chemical Engineering program in Universitas Muhammadiyah Surakarta (UMS) has already accredited from national accreditation body by Keputusan BAN-PT No. 4511/SK/BAN-PT/Akred/M/XI/2019. Our missions are (1) holding master's education with chemical engineering-based curriculum and upholding Islamic values, (2) develop research focused on the use of natural resources and applied clean technology, (3) help overcome problems in society and industries through community service activities.

A relevant master's degree could provide you with a critical competitive advantage in a crowded job market - employers are increasingly looking for ways to differentiate between candidates, and this higher-level qualification demonstrates your ability to commit to an intense period of work. If you want to change careers, a master's degree may be beneficial.

If you're already working in your preferred industry, a postgraduate degree could lead to rapid career progression. It could emphasize your drive, determination and willingness to increase your ability in a chosen area. What's more, the university may support you financially through sponsorship.



# FUTURE

# CAREERS

Chemical engineers use cutting-edge technology to improve the quality of people's lives in areas such as environmental protection, resource management, and health and safety control. The jobs related to chemical engineering degree include analytical chemist, energy manager, environmental engineer, manufacturing engineer, materials engineer, mining engineer, production manager, quality manager, waste management officer, water engineer, etc.

Studying for a master's degree in chemical engineering is an exciting prospect and there are many valid reasons to consider taking a postgraduate course. The most popular reasons are:

1

Progressing a current career path

4

Advancing to a higher-level qualification  
(doctoral degree)

2

Improving employment prospects

5

Entering a specific profession

3

Developing a personal interest

6

Meeting the requirements of a current job

A master's degree can also aid a career change, help you to gain chartership and provide useful industry contacts and connections.

# CURRICULUM

The chemical engineering master program is implemented in 4 semesters or 2 years, and the maximum time limit for the study period is 4 years. The total credit load is 43 credits, consisting of 35 credits of compulsory and elective courses and 8 credits of thesis according to the curriculum.

The course distribution on each semester as follows:

## Semester 1 (14 credits)

Islamic studies (2 credits)

Thermodynamics (3 credits)

Transport process (3 credits)

Technology of natural resources (3 credits)

Elective course 1 (3 credits)

## Semester 2 (12 credits)

Chemical reaction (3 credits)

Clean Technology (3 credits)

Research methodology (3 credits)

Elective course 2 (3 credits)

## Semester 3 (9 credits)

Separation Technology (3 credits)

Elective course 3 (3 credits)

Research proposal (2 credits)

Seminar for proposal (1 credit)

## Semester 4 (8 credits)

Thesis (6 credits)

Seminar for thesis (2 credits)



The following elective courses are 3 credits on each subject:

1. Optimization process
2. Material technology
3. Waste treatment technology
4. Catalyst technology
6. Energy Technology
7. Polymer technology
8. Food technology
9. Electrochemistry



# BENEFITS & FACILITIES

## BENEFITS

UMS is one of the largest universities among more than 160 higher education institutions under the Muhammadiyah Society. UMS is located in the heart and spirit of Java, Surakarta (or popular name is Solo) in Central Java, Indonesia, only 15 minutes from the Adi Sumarmo airport in Solo. In addition the living cost in Solo is quite unexpensive and there are many kinds of delicious and distinctive food.

Chemical Engineering at the Faculty of Engineering UMS offers excellent education delivered by experienced professional lecturers (mostly graduated from reputable university abroad) to prepare students towards an independent nation in managing natural resources efficiently and environmentally sound.

## OUR FACILITIES

Excellent library nationally accredited

Comfortable and representative lecture rooms

Student area and discussion rooms

Good laboratory supporting research

Nice building facilities, great mosques, green campus and parking area



# PROGRAM STARTS

Semester I academic calendar starts in September, while semester II starts in February. The enroll of new students is opened all year round. The background of students should from the department of science, engineering, or technology. However, a matriculation or preparation class may be made if you are not from the chemical engineering department. UMS International student's office assigns international student's liaisons to assist prospective students, on pre-departure, on arrival (e.g. visa or help with housing) and bridging program.

## DURATION

The program has duration for two years (45 credits).

## ENTRY REQUIREMENT

### ***Degree-level Qualification***

For degree level qualification, preference maybe given to those who have undergraduate degree in Chemical Engineering. Applications from high caliber candidate with life-sciences, chemistry, or medicine are welcome. Evidence of training or laboratory experience may be an advantage.

### ***English Language Requirements***

You may need to provide evidence that you meet the university's requirements by having one score of these:

IELTS Academic (5)

TOEFL IBT (40)

UMS ITP Test (450)

## SUPPORTING DOCUMENTS

You will be required to supply supporting documents with your application, including two references and an official transcript (in English).

## PERFORMANCE AT INTERVIEW

Interviews are normally held as part of the admissions process. Applicants will be subjected for an online interview, which will be conducted by the Head of the Master Program of Chemical Engineering.

Prospective students are advised to check the Master of Chemical Engineering website for more information (<https://mtk.ums.ac.id/en>)





# CONTACT US

## Fakultas Teknik

Universitas Muhammadiyah Surakarta  
Jl. A. Yani, Pabelan, Kartasura, Tromol Pos 1,  
Surakarta,  
Central Java, INDONESIA 57102  
<https://mtk.ums.ac.id/en/>

## Do not hesitate to contact us:

### Dr. Herry Purnama

(email: [hp269@ums.ac.id](mailto:hp269@ums.ac.id); WA: +6281548850800)

### Mrs. Septiana Ambarwati

(email: [mtk@ums.ac.id](mailto:mtk@ums.ac.id); wa: +6287734024318)





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# DDO SPECTUS PROSPECTUS

MASTER OF CIVIL ENGINEERING

UNIVERSITAS MUHAMMADIYAH SURAKARTA





# ABOUT ABOUT ABOUT ABOUT

The UMS Civil Engineering master program was established based on the Decree of The Directorate General of Higher Education No. 2555/D/T/2001 and has been accredited A based on the Decree of National Higher Educational Accreditation Organization No. 3867/SK/BAN-PT/Akred/M/X/2019.

The civil engineering master program develops students to become graduates who work as academics, practitioners, and managers in the Islamic civil engineering field especially in infrastructure management.

Professional expertise is targeted to anticipate the dynamics of science that develop very quickly and answer the problem of material scarcity, technology, and management in civil engineering infrastructure development.



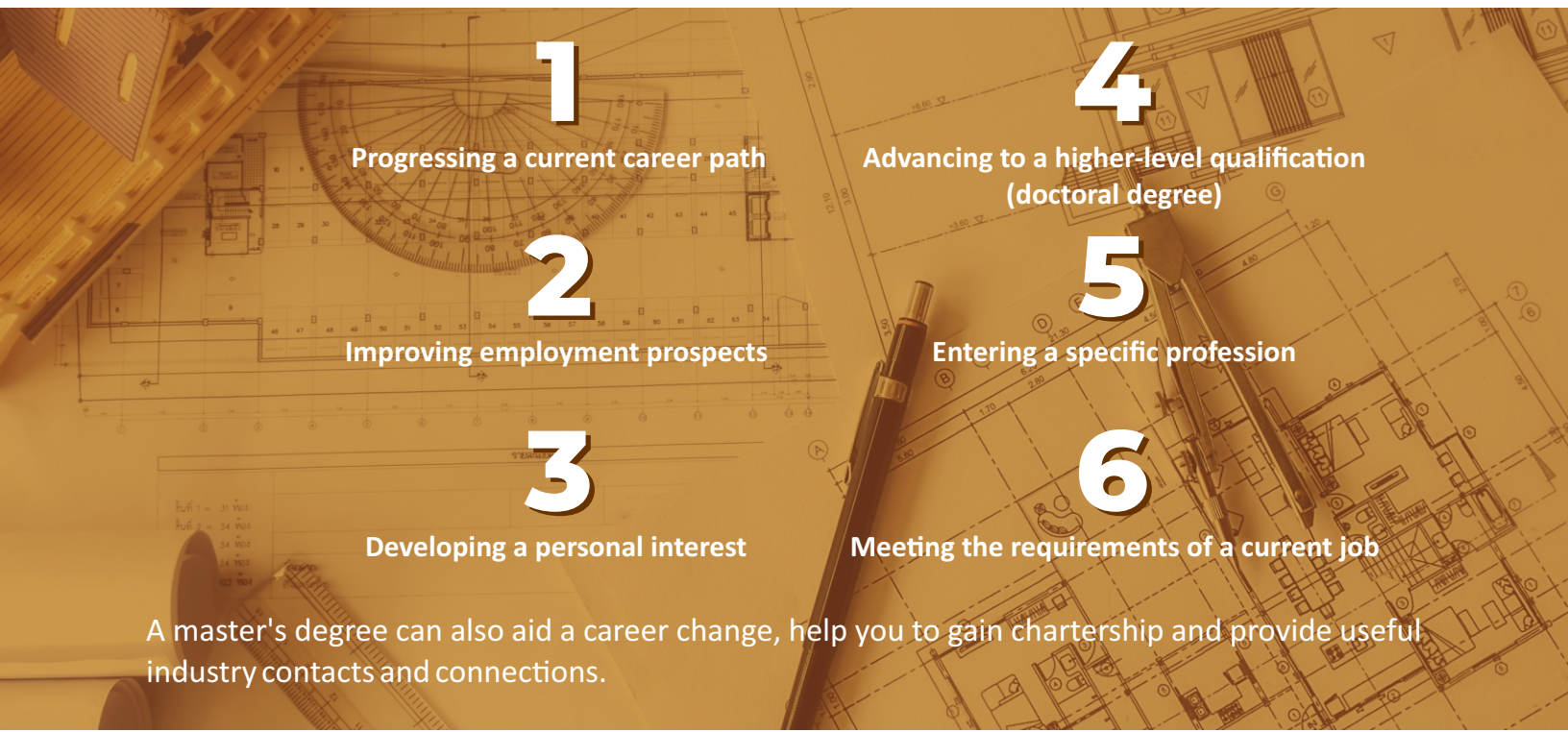
# FUTURE CAREERS

Civil engineers contribute to country development through designing, supervising, and infrastructure development maintaining such as highways, railways, buildings, tunnels, airports, dams, bridges, water storages, and others. Currently, infrastructure development is being the main concern in various countries so that Civil Engineers are always needed in various professional fields: contractors, planning consultants, supervisory consultants, managers, surveyors, site engineers, and government employees.

Master of Civil Engineering UMS provides education in the infrastructure management field to produce professional graduates along with great character, organize research activities focus on infrastructure management that is beneficial to the community, organize community service activities oriented to improving people's living standards, as well as explore Islamic values, especially those related to infrastructure management.

Master of Civil Engineering UMS aims to produce professional Master of Engineering graduates with great character, produce research products, books, and scientific publications in the Civil Engineering field, provide community services as part of social and environmental responsibilities, and produce civil engineering studies based on Islamic values, especially in the infrastructure management field.

Studying for a master's degree in civil engineering is an exciting prospect and there are many valid reasons to consider taking a postgraduate course. The most popular reasons are:



1

Progressing a current career path

4

Advancing to a higher-level qualification (doctoral degree)

2

Improving employment prospects

5

Entering a specific profession

3

Developing a personal interest

6

Meeting the requirements of a current job

A master's degree can also aid a career change, help you to gain chartership and provide useful industry contacts and connections.



# CURRICULUM

The civil engineering master program is implemented in 4 semesters or 2 years, and the maximum time limit for the study period is 4 years. The total credit load is 42 credits, consisting of 30 credits of compulsory courses and 12 credits of elective courses according to the curriculum.

Semester	Course Code	Semester 1	Credit
I	PMF10110803	Applied Mathematics & Statistic	3
I	PMF10110303	Advanced Civil Engineering Applied Science	3
I	PMF10110403	Management of Infrastructure Improvement	3
I	PMF10110503	Project Feasibility Analysis	3
I	PMF10110703	Environmental & Traffic Impact Analysis	3
<b>Semester 2</b>			
II	PMF20110102	Research Methodology	3
II	PMF20110203	Management of Infrastructure Management	3
II	PMF20110802	Elective Course 2	3
II	PMF20110603	Elective Course 3	3
II	PMF20110302	Elective Course 4	3
II	PMF20110402	Elective Course 5	3
<b>Semester 3</b>			
III	PMF 30110102	Thesis Proposal & Seminar	3
<b>Semester 4</b>			
IV	PMF40110106	Thesis and Publication	6
<b>TOTAL CREDIT</b>			<b>45</b>

# BENEFITS & FACILITIES

## BENEFITS

UMS is one of the largest universities among more than 160 higher education institution under the Muhammadiyah Society. UMS is located in the heart and spirit of Java, Surakarta (or popular name is Solo) in Central Java, Indonesia, only 15 minutes from the Adi Sumarmo airport in Solo. In addition the living cost in Solo is quite unexpensive and there are many kinds of delicious and distinctive food.

Chemical Engineering at the Faculty of Engineering UMS offers excellent education delivered by experienced professional lecturers (mostly graduated from reputable university abroad) to prepare students towards an independent nation in managing natural resources efficiently and environmentally sound.

## OUR FACILITIES

Excellent library nationally accredited

Comfortable and representative lecture rooms

Student area and discussion rooms

Good laboratory supporting research

Nice building facilities, great mosques, green campus and parking area





# PROGRAM STARTS

Semester I academic calendar starts in September, while semester II starts in February. The enroll of new students is opened all year round. The background of students should from the department of science, engineering, or technology. However, a matriculation or preparation class may be made if you are not from the chemical engineering department. UMS International student's office assigns international student's liaisons to assist prospective students, on pre-departure, on arrival (e.g. visa or help with housing) and bridging program.

## DURATION

The program has duration for two years (45 credits).

## ENTRY REQUIREMENT

### ***Degree-level Qualification***

For degree level qualification, preference maybe given to those who have undergraduate degree in Civil Engineering.

### ***English Language Requirements***

You may need to provide evidence that you meet the university's requirements by having one score of these:

IELTS Academic (5)

TOEFL IBT (40)

UMS ITP Test (450)

## SUPPORTING DOCUMENTS

You will be required to supply supporting documents with your application, including two references and an official transcript (in English).

## PERFORMANCE AT INTERVIEW

Interviews are normally held as part of the admissions process. Applicants will be subjected for an online interview, which will be conducted by the Head of the Master Program of Civil Engineering.

Prospective students are advised to check the Master of Civil Engineering website for more information (<https://mts.ums.ac.id/en>)



# CONTACT US

## Fakultas Teknik

Universitas Muhammadiyah Surakarta  
Jl. A. Yani, Pabelan, Kartasura, Tromol Pos 1,  
Surakarta,  
Central Java, INDONESIA 57102  
<https://mts.ums.ac.id/en/>

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+6287738319791)





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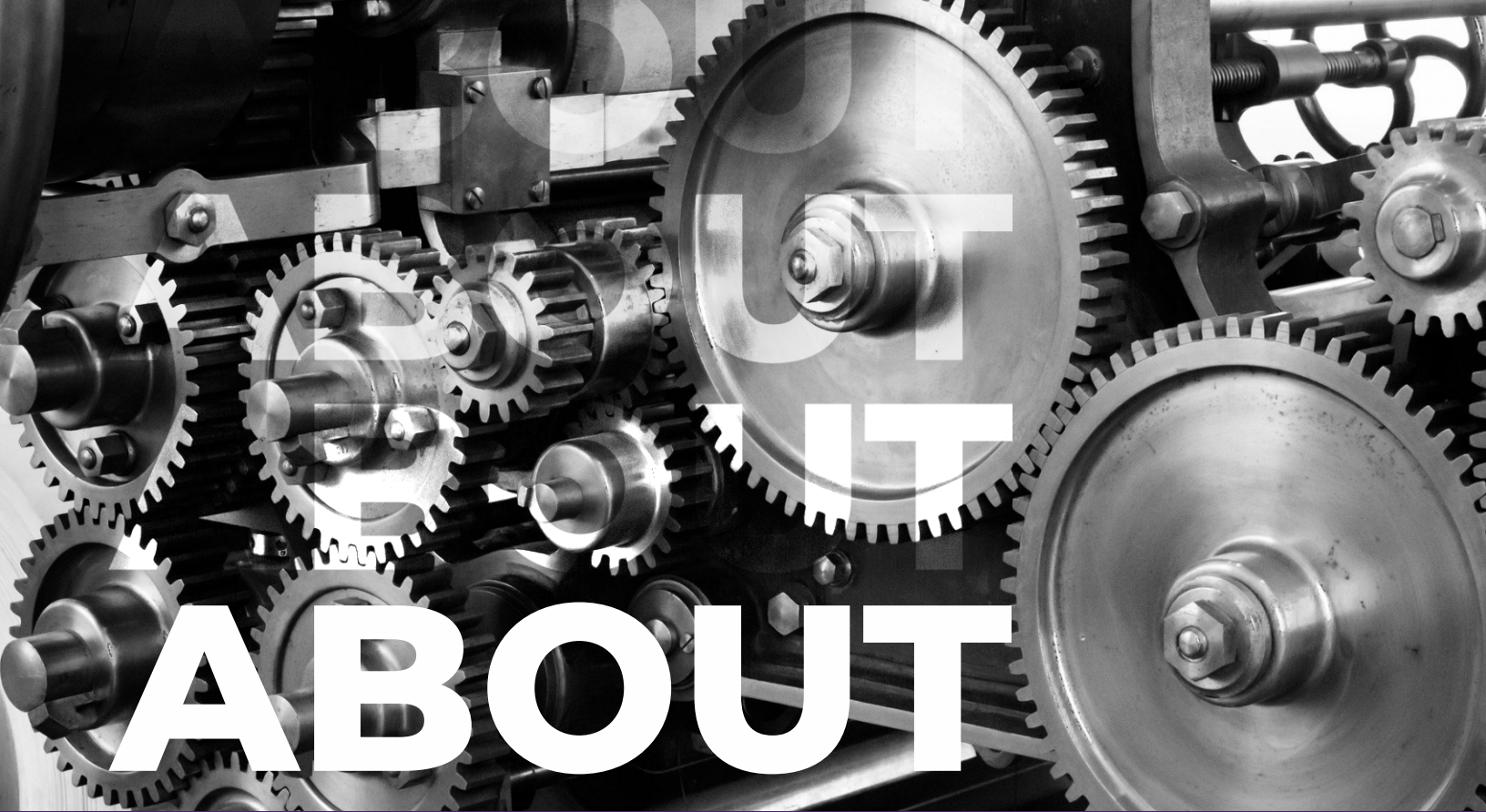


# PROSPECTUS PROSPECTUS

MASTER OF MECHANICAL ENGINEERING

UNIVERSITAS MUHAMMADIYAH SURAKARTA





# ABOUT

The Mechanical Engineering Master Program uses a research-innovation-based learning system for sustainable scientific development through offline and online media. This program also develops networking and cooperation in multidisciplinary teams and elaborates technical competence capacity independently, as well as evaluates and documents the working result based on the information system.





# FUTURE

# CAREERS

Master of Mechanical Engineering carries out applied research on a laboratory scale that is beneficial to society and industry, referring to the result of research-tested in the laboratory taking into account efficiency and added value. The program also applies basic theories of material engineering, manufacturing, energy and automotive, resource availability, and technology development to strengthen career development after graduation.

1

Progressing a current career path

4

Advancing to a higher-level qualification  
(doctoral degree)

2

Improving employment prospects

5

Entering a specific profession

3

Developing a personal interest

6

Meeting the requirements of a current job

A master's degree can also aid a career change, help you to gain chartership and provide useful industry contacts and connections.

# CURRICULUM

Mechanical Engineering Master's curriculum offers innovative learning in material engineering, process system technology in mechanical engineering components based on the latest technological advances, and developing expertise in mechanical engineering including manufacturing, energy, and automotive material engineering. The learning process is carried out comprehensively by following technological development.

Semester	Course Code	Semester 1	Credit
I	10110103	Vehicle Dynamics and Frame Design	3
I	10110203	Metal Forming Technique	3
I	10110303	Vehicle System	3
I	10110403	Manufacturing Management & Entrepreneurship	3
I	10110503	CAD/CAM/CAE	3
<b>Semester 2</b>			
II	20110103	Vehicle Engine Technology	3
II	20110203	Rapid Prototyping	3
II	20110303	Advanced Engineering Materials	3
II	20110403	Design Optimization	3
II	20110503	Manufacturing Automation	3
		Elective Course 1	3
<b>Elective Course</b>			
	20110603	Advanced Finite Element Method	3
	20110703	Commercial Vehicle	3
	20110803	Composites and Structure	3
	20110903	Metal Forming Tool Design	3
	20111003	Metal Treatment	3
<b>Semester 3</b>			
III		Seminar and Publications	2
III		Thesis	6
III		Islamic and Muhammadiyah Studies	0
III		Interdisciplinary General Studies (5 times)	0
<b>TOTAL CREDIT</b>			<b>44</b>



# BENEFITS & FACILITIES

## BENEFITS

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## PROGRAM STARTS

Semester I academic calendar starts in September, while semester II starts in February. The enroll of new students is opened all year round. The background of students should from the department of science, engineering, or technology. However, a matriculation or preparation class may be made if you are not from the chemical engineering department. UMS International student's office assigns international student's liaisons to assist prospective students, on pre-departure, on arrival (e.g. visa or help with housing) and bridging program.

### DURATION

The program has duration for two years (44 credits).

### ENTRY REQUIREMENT

#### ***Degree-level Qualification***

For degree level qualification, preference maybe given to those who have undergraduate degree in Mechanical Engineering.

#### ***English Language Requirements***

You may need to provide evidence that you meet the university's requirements by having one score of these:

IELTS Academic (5)

TOEFL IBT (40)

UMS ITP Test (450)

### SUPPORTING DOCUMENTS

You will be required to supply supporting documents with your application, including two references and an official transcript (in English).

### PERFORMANCE AT INTERVIEW

Interviews are normally held as part of the admissions process. Applicants will be subjected for an online interview, which will be conducted by the Head of the Master Program of Mechanical Engineering.

Prospective students are advised to check the Master of Mechanical Engineering website for more information (<https://mtm.ums.ac.id/en>)





# CONTACT US

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Universitas Muhammadiyah Surakarta  
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Central Java, INDONESIA 57102  
<https://mtm.ums.ac.id/en/>



# INFORMASI One Day Service



## HOW TO APPLY

### Application Online

Please visit

<https://scholarship.diktilitbangmuhammadiyah.org/>

then apply online from here

<https://scholarship.diktilitbangmuhammadiyah.org/Auth>