

The Program Learning Outcomes of Master in Clinical Pharmacy UGM are as follow:

## **1. ATTITUDE**

- 1.1. Demonstrate Pancasila's values and awareness of the interest of the nation and the state.
  - 1.1.1. Fear to the Almighty God and be able to show religious attitude;
  - 1.1.2. Uphold human values in carrying out tasks based on religion, morals, and ethics;
  - 1.1.3. Contribute to the development of the quality of life in the community, the nation, and the state, also to the progress of civilization based on Pancasila;
  - 1.1.4. Act as a citizen who is proud and loves the country, who has nationalism and a sense of responsibility to the nation and the country;
  - 1.1.5. Respect the diversity of cultures, views, religions, and beliefs, as well as the opinion or origin findings of others; and
  - 1.1.6. Work together and have the social sensitivity and concern for the society and the environment.
- 1.2. Demonstrate honesty, responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learners.
  - 1.2.1. Obey the laws and discipline in the community and the state life;
  - 1.2.2. Internalize the academic values, norms, and ethics;
  - 1.2.3. Demonstrate a responsibility attitude for works in his/her area of expertise independently; and
  - 1.2.4. Internalize the spirit of independence, struggle, and entrepreneurship.

## **2. MASTERY OF KNOWLEDGE**

- 2.1. Able to master the pathophysiology and pharmacotherapy concept to evaluate the management of drug therapy in the commonly encountered diseases;
- 2.2. Able to master the theoretical concept which supports the assessment of therapeutics outcomes taking into account of pharmacokinetics and pharmacodynamics;
- 2.3. Able to design the drug dosage regimens based on the individual patient conditions;
- 2.4. Able to develop and implement drug therapy monitoring strategies for patients individually;
- 2.5. Able to master the counseling concept and to prepare materials to carry out counseling to patients and/or their family regarding the treatment to get optimal therapeutic results;
- 2.6. Able to master the Evidence-based Medicine (EBM) principles and to examine drug information sources to be able to provide the latest scientific proof based on evidence ;
- 2.7. Able to master the principle of preparing parenteral nutrition formulas and mixing intravenous medicine;
- 2.8. Able to master the concept of academic integrity in general and the concept of plagiarism in particular, in terms of plagiarism, violation consequences, and preventive action; and
- 2.9. Able to master the principle of legality, social aspect, science and technology underlying the application of the research result to pharmaceutical services to the public.

### **3. SPECIFIC SKILL**

- 3.1. Able to sharpen and to expand further pharmaceutical science for the development of the research and the research application for the development of pharmaceutical science and clinical pharmacy services to the public;
- 3.2. Able to solve the drug-related problem in the hospital and other health care facilities through the development and the implementation of pharmacotherapy;
- 3.3. Able to formulate new ideas in the development and the application of clinical pharmacy service practices by collecting data, processing and analyzing data, and making interpretations qualitatively and quantitatively;
- 3.4. Able to solve problems through effective communication and to create affective network through an inter of multidisciplinary approach; and
- 3.5. Able to develop and to implement the results of evaluation of drug information source and to provide drug information services.

### **4. GENERAL SKILL**

- 4.1. Able to apply logical, critical, and systematic, and innovative way of thinking by utilizing information technology to result solutions according to the field of expertise with the existing integrity manifested in scientific documents;
  - 4.1.1. Able to develop logical, critical, systematic, and creative way of thinking through scientific research, creation of designs or works of art in the field of science and technology that pays attention to and applies the humanities values in accordance with their field of expertise, compilation scientific conceptions and study results based on rules, procedures, and scientific ethics in a form of thesis or other equivalent form of papers, and upload them of the campus website, as well as papers that have been published in accredited or accepted scientific journals in international journals;
  - 4.1.2. Able to compile scientific ideas, results, and arguments responsibly based on academic ethics, as well as to communicate them through the media to the academic community and the wider community;
  - 4.1.3. Able to identify scientific fields that are the object of the research and to position them into a research map developed through an interdisciplinary or multidisciplinary approach;
  - 4.1.4. Able to make decisions in the context of solving problems of science and technology development that pay attention to and apply the humanities values based in analytical or experimental studies of information and data;
  - 4.1.5. Able to publish the academic works in accredited national scientific journals or reputable international journals;
  - 4.1.6. Able to adapt, to work together, to create, to contribute, and to innovate in applying the scientific knowledge to the community, as well as to play a role as a global citizen with a global insight;
  - 4.1.7. Able to use information technology in the context of scientific development and the implementation of the areas of expertise; and

- 4.1.8. Able to use at least one international language for the purpose of spoken or written communication.
- 4.2. Able to expand networks, to adapt, to create, to contribute, to supervise, to evaluate, and to make decisions in order to show independent and group performance in applying science to social life;
  - 4.2.1. Able to conduct academic validation or study according to the areas of expertise in solving problems in the community or the relevant industry through the development of knowledge and expertise;
  - 4.2.2. Able to manage, to develop, and to maintain networks with colleagues within the broader research institutions and communities;
  - 4.2.3. Able to increase the learning capacity individually; and
  - 4.2.4. Able to document, to store, to secure, and to rediscover data from research result in order to guarantee validity and to prevent plagiarism; and
  - 4.2.5. Able to uphold the academic integrity in general and to prevent plagiarism.