



MODULE HANDBOOK

**MASTER IN PHARMACY MANAGEMENT
FACULTY OF PHARMACY
UNIVERSITAS GADJAH MADA
2021**

TABLE OF CONTENTS

Module 1: Research Design and Analysis of Social Pharmacy	1
Module 2: Scientific Writing and Publishing.....	3
Module 3: Law – Ethics and Regulation in Pharmacy	5
Module 4: Management and Organizational Behavior	7
Module 5: Financial Management in Pharmacy	9
Module 6: Marketing Management in Pharmacy.....	11
Module 7: Information System of Pharmacy Management and Health	13
Module 8: Health Financing Management	15
Module 9: Pharmacoepidemiology and Pharmacoeconomics	17
Module 10: Organizational Strategic Management in Pharmacy	19
Module 11: Internship/Project-based Learning	21
Module 12: Thesis I	23
Module 13: Thesis II.....	25
Module 14: Pharmaceutical Care System in Health Facilities	26
Module 15: Pharmaceutical Control and Development Management in Hospital	28
Module 16: Management System of Drug Supply in Hospital.....	30
Module 17: Drug Use Study	32
Module 18: Drug Distribution Management	34
Module 19: Social Aspect – Drug Use Behavior.....	36
Module 20: Pharmacy and Health Policy.....	38
Module 21: Health Promotion in Public Health Pharmacy.....	40
Module 22: Operation Management.....	42
Module 23: Production Management and Quality Assurance	44
Module 24: Development of Pharmaceutical Industry Management.....	46
Module 25: Production Planning and Inventory Control	48
Module 26: Microeconomics	50
Module 27: Pharmacoeconomics Modeling.....	52
Module 28: Evidence-Based Medicine	54
Module 29: Drug Safety for Public Health	56
Module 30: Systematic Review and Meta-Analysis.....	58
Module 31: Big Data in Healthcare	60
Module 32: Global Regulatory Affairs	62
Module 33: Human Resources Management.....	65



Modul name	Research Design and Analysis of Social Pharmacy
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211101</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Dr. Chairun W, M.Kes, M.App.Sc, Apt</i>
Lecturer	<i>Dr. Chairun W, M.Kes, M.App.Sc, Apt Dr. Susi Ari Kristina, Apt Dr. Anna Wahyuni Widayanti, MPH, Apt., Ph.D. Dr. Drg. Dibyo Pramono, SU, MDSc</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-Centered Learning : Case-based and project-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Exam or task in the form of a project/case-based exam 100% Attendance 75%</i>
Recommended prerequisites	<i>-</i>
Required and recommended prerequisites for joining the module	<i>Each student is required to attend a minimum of 75% of the total number of meetings for each course</i>
Module objectives/intended learning outcomes	<i>1. Able to formulate new solutions, cutting-edge methods and their use in pharmaceutical science</i> <i>2. Able to adapt, work together, be creative, contribute and innovate in applying science to social life and act as a world citizen with a global perspective</i> <i>3. Able to increase learning capacity independently</i>



Content	<i>This course begins with a brief review of scientific philosophy, discussing the classification and types of research designs often used in social pharmacy. These include experimental, quasi-experimental, observational, qualitative and mixed methods, along with data collection and data analysis methods that follow these designs. In addition, topics regarding statistical tests often used and ethical considerations in research will be given as well.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Russo, R. (2020). Statistics for the Behavioural Sciences: An Introduction to Frequentist and Bayesian Approaches. United Kingdom: Taylor & Francis.;</i> <i>2. Pharmacy Practice Research Methods. (2015). Germany: Springer International Publishing.</i> <i>3. Plano Clark, V. L., Creswell, J. W. (2017). Designing and Conducting Mixed Methods Research. United States: SAGE Publications.</i> <i>4. Analyzing and Interpreting Qualitative Research: After the Interview. (2021). United States: SAGE Publications.</i> <i>5. Sutton, J., Austin, Z. (2018). Research Methods in Pharmacy Practice: Methods and Applications Made Easy. Netherlands: Elsevier Health Sciences.</i>



Modul name	Scientific Writing and Publication
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211102</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Prof. Dr. Susi Ari Kristina, M. Kes., Apt</i>
Lecturer	<i>Prof. Dr. Susi Ari Kristina, M. Kes., Apt Anna Wahyuni Widayanti, MPH, Apt., Ph.D.</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : Project-based learning</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Able to apply logical, critical, systematic and innovative thinking by utilizing information technology to produce solutions according to the field of expertise with integrity which are realized in scientific documents</i> <i>2. Able to develop work networks, adapt, be creative, contribute, supervise, evaluate and make decisions in order to demonstrate independent and group performance to apply knowledge to social life.</i>
Content	<i>This course provides students with insight and technical skills in writing scientific publications. This course consists of an overview of scientific publications, types of scientific papers, and criteria that must be met in writing manuscripts. Students are also equipped with technical skills in submitting, an overview of the reviewing process, publication ethics (plagiarism), writing and presentation techniques, and the use of English in scientific writing and publications. At the end of the course, students must write a manuscript that is ready to submit.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>



Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, Board, LMS</i>
Reading list	1. <i>Chisholm-Burns MA, Spivey C, Martin JR, et al. A 5-year analysis of peer-reviewed journal article publications of pharmacy practice faculty members. Am J Pharm Educ 2012;76(7):127.</i> 2. <i>Weathers T, Unni E. Publication rates of social and administrative sciences pharmacy faculty in nonresearch intensive pharmacy schools. Am J Pharm Educ 2018;82(3):6229.</i> 3. <i>von Elm E, Altman DG, Egger M, Pocock SJ, Gotsche PC, Vandenbroucke JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: guidelines for reporting observational studies. Ann Intern Med 2007;147(8):573-7</i> 4. <i>Kotz D, Cals JW. Effective writing and publishing scientific papers, part IV: methods. J Clin Epidemiol 2013;66(8):817.</i> 5. <i>Glover NM, Antoniadis I, George GM, et al. A pragmatic approach to getting published: 35 tips for early career researchers. Front Plant Sci 2016;7:610.</i>



Modul name	<i>Law - Ethics and Regulation in Pharmacy</i>
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211103</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Prof. Dr. apt. Akhmad Kharis Nugroho, M.Si.</i>
Lecturer	<i>Prof. Dr. apt. Akhmad Kharis Nugroho, M.Si. Prof. Dr. Sudjito, S.H., M.Si. Prof. Dr.rer.nat. apt. Triana Hertiani, M.Si. Dr. apt. Hari Purnomo, M.S.</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Demonstrating a Pancasila attitude and awareness of the interests of the nation and state. 2. Demonstrating honesty, responsibility, confidence, emotional maturity, ethical behavior, and lifelong learning awareness.</i>
Content	<i>This course material is provided as a knowledge base regarding various aspects related to legal, ethical, and regulatory aspects of healthcare services, especially in pharmacy, comprehensively and entirely. The course also covers Intellectual Property Rights in the field of pharmacy.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>



Reading list	1. Siti Nafsiah, <i>"Prof. Hembing pemenang the Star of Asia Award: pertama di Asia ketiga di dunia"</i>, Gema Insani, 2000. 2. Yayasan Lembaga Bantuan Hukum Indonesia, Pusat Studi Hukum dan Kebijakan Indonesia, <i>"Panduan bantuan hukum di Indonesia: pedoman anda memahami dan menyelesaikan masalah hukum"</i>, Yayasan Obor Indonesia, 2006. 3. George Pickett & John J. Hanlon, <i>"Kesehatan Masyarakat: Administrasi dan praktik"</i>, EGC, 9794488054. 4. Rudy S. Pontoh, <i>"Janji-janji dan komitmen SBY-JK: menabur kata, menanti bukti"</i>, Gramedia Pustaka Utama, 2004. 5. Sulastomo, <i>"Manajemen kesehatan"</i>, Gramedia Pustaka Utama, 2000. 6. <i>Undang-undang No.23 Tahun 1992 Tentang Kesehatan & Undang-undang No.29 Tahun 2004 Tentang Praktik Kedokteran</i>, VisiMedia. 7. <i>"Etika Kedokteran dan Hukum Kesehatan"</i>, EGC, 9794484598. <i>"Pengantar Kesehatan Lingkungan"</i>, EGC, 9794487961. 8. Suprihatin Guhardja, BPK Gunung Mulia, PT., Institut Pertanian Bogor. Pusat Antar Universitas Pangan dan Gizi, <i>"Pengembangan sumber daya keluarga: bahan pengajaran"</i>, BPK Gunung Mulia, 1993.
--------------	---



Module name	Management and Organizational Behavior
Code/Status	<i>FAMF211104</i>
Module designation	<i>Master in Pharmacy Management</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Prof. Dr. apt. Satibi, M.Si.</i>
Lecturer	<i>Prof. Dr. apt. Satibi, M.Si. Ragil Sriharto, S.E., M.M. Dr. Dra. Sumarni, M.Si.</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : Case-based learning method</i>
Workload	<i>150 minutes of in-class lectures 180 minutes of structured assignment activities 180 minutes of independent activities In total 510 minutes/week In 16 weeks = 8160 minutes = 136 hours 1 ECTS = 28 hours</i>
Credit points	<i>3 CSU = 4.8 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Demonstrating a Pancasila attitude and awareness of the interests of the nation and state. 2. Demonstrating honesty, responsibility, confidence, emotional maturity, ethical behavior, and lifelong learning awareness.</i>



Content	<i>The course introduces various topics including Management and Organizational Behavior, Strategic Management, and strategic issues related to Organizational Processes, focusing on the role of Planning and Organizational Success, Organizational dynamics, and Organizing Concepts: Structural and Organizational Design Aspects. It also covers Modern Management: Paradigms, Profiles, Processes, and Strategies, highlighting Staffing: Human Resources as the most crucial investment for organizations, the role of Communication and Information Management in Organizations, Project-based, and case-based studies on Transformational Leadership, Implementation of organizational behavior management in the pharmaceutical industry, Organizational Leadership and Motivation, and Project-based approaches in management and organizational behavior in pharmaceutical business: Roles and processes of Organizational Control.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Gary Dessler, Management (2nd edition), Prentice Hall International, Inc - Kode D</i> <i>2. Ronald J. Ebert -,Ricky W. Griffin, Business Essentials, Prentice Hall, 2007-Kode R</i> <i>3. Gudono, Ph.D, Theori Organisasi, Pensil, 2009-Kode G</i> <i>4. Kreitner, R. dan Kinicki 2007. Organization Behavior. Sevent Edition. McGraw-Hill Companies.</i> <i>5. Muchlas, M. 2005. Perilaku Organisasi, Gadjah Mada University Press</i> <i>6. Robbin, S.P. 1993. Organizational Behavior: Concept Controversies and Applications Eds. New Jersey.</i> <i>7. Yulk,G. 2006. Leadership in Organization, Sixth Eds. New Jersey. Pearson Education, Inc.</i>



Modul name	Financial Management in Pharmacy
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211105</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Prof. Dr. apt. Satibi, M.Si.</i>
Lecturer	<i>Prof. Dr. apt. Satibi, M.Si. Prof. Dr. Tandelilin Eduardus, M.B.A. I Wayan Nuka Lantara, M.Si., Ph.D. Eddy Junarsin, Ph.D., CFP</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering the theory and practical application of pharmaceutical management and social pharmacy deeply to develop research and apply research findings for academic advancement. 2. Synthesizing and integrating pharmaceutical management and social pharmacy sciences in a multi and interdisciplinary manner.</i>
Content	<i>The topics discussed include the time value of money, financial markets, financial statements, financial performance analysis, risk and return, as well as bond and stock valuation. Additionally, it covers investment decisions and financing decisions, with case studies focusing on risk management, financial management in operations, working capital, and risk management. Furthermore, there are case studies on the application of financial management principles in pharmaceutical research development and pharmacy services, emphasizing financial management principles in service provision and research development in the pharmaceutical field.</i>



Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, task, presentation</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Baker HK, Powell G. Understanding financial management: A practical guide. John Wiley & Sons; 2009 Feb 9.</i> <i>2. Herist KN, Rollins BL, Perri M. Financial analysis in pharmacy practice. Pharmaceutical Press; 2011.</i>



Modul name	Marketing Management in Pharmacy
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211106</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Anna Wahyuni Widayanti, MPH, Apt., Ph.D.</i>
Lecturer	<i>Prof. Dr. Satibi, M.Si, Apt Anna Wahyuni Widayanti, MPH, Apt., Ph.D. Dr. Ir. Suci Paramitasari Syahlani, MM Dr. Sampurno, MBA., Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering the theory and practical application of pharmaceutical management and social pharmacy sciences deeply to develop research and apply research findings for academic advancement</i> <i>2. Able to apply logical, critical, systematic, and innovative thinking utilizing information technology to generate solutions within the field of expertise with integrity, manifested in scientific documents.</i>



Content	<i>This course provides an overview of how pharmaceutical companies, hospitals, pharmacies, and pharmaceutical businesses try to achieve their marketing goals by determining market segments to serve and serving these target markets using adequate resources. Customer satisfaction is a controlling factor for formulating an appropriate product, price, distribution, and promotion marketing mix. Marketing managers' planning, implementation, and control related to these aspects require decision-making, which is influenced by environmental factors, both external macro and micro external environment, including the competitive environment. Advances in information technology and globalization contributing to the new economy are also influencing marketing decisions. The marketing and holistic concepts are the philosophical foundations for every marketing decision. This course also studies social marketing, the use of marketing to design and implement programs to promote socially beneficial behavior change.</i>
Study and examination requirements	25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation
Examination forms	Final and Mid-exam (Writing exams), presentation, task
Media employed	Slide, Face to face instruction, LMS
Reading list	1. Kolassa EM, <i>Pharmaceutical Marketing: Principles, Environment, and Practice</i>, Informa Health Care, London 2. Dogramatzis D, <i>Pharmaceutical Marketing: A Practical Guide</i> 1st Edition, CRC Press, LA. 3. Kotler, P., Keller, K.L, 2009, <i>Marketing Management</i>, 13th Ed. Upper Saddle River, N.J: Pearson Education, Inc. 4. <i>Social Marketing: Behavior Change for Social Good</i>. United States: SAGE Publications.



Modul name	Information System of Pharmacy Management and Health
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211107</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Prof. Dr. apt. Akhmad Kharis Nugroho, M.Si.</i>
Lecturer	<i>Dr. Susi Ari Kristina, M. Kes., Apt dr. Luthfan Lazuardi, M. Kes., Ph.D Prof. Dr. Hari Kusnanto, SU., MS</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Formulate new ideas for implementing management in the fields of pharmacy and social pharmacy; 2. Able to apply logical, critical, systematic and innovative thinking by utilizing information technology to produce solutions according to the field of expertise with integrity which are realized in scientific documents</i>
Content	<i>This course discusses the principles of MIS (management information system) development and its use to support drug services and management, including for patient needs. Analysis of requirements and MIS interfaces is carried out to minimize challenges/barriers to use. MIS, which contains data analysis, information, hardware, software, electronic medical records, and e-prescribing, is explained in this course. Issues regarding safety, use, and the role of pharmacists in MIS to maximize services in the JKN era are also discussed in case studies.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>



Reading list	1. <i>Lippeveld, T., Sauerborn, R Bodart, C (2000) Design and Implementation of Health Information Systems, Edition. WHO.</i> 2. <i>Shortliffe, E. Cimino, J (2006) Biomedical Informatics, 4 Edition. Springer.</i> <i>Additional :</i> 1. <i>Berger, E.J., Jazayeri, D, Sauveur, M, Manasse, J.J, Plancher, I, Fiefe, M, Laurat, G, Joseph, S, Kempton, K Fraser, H.S.F (2007;2007) Implementation and evaluation of a web based system for pharmacy stock management in rural Haiti. AMIA Annu Symp Proc 2007:46-50.</i> 2. <i>Fischer, M.A., Vogeli, C, Stedman, M.R, Ferris, T.G Weissman, J.S (2008) Uptake of Electronic Prescribing in Community-Based Practices. J Gen Intern Med 23:358-363.</i> 3. <i>Kaushal, R., Jha, A.K, Franz, C, Glaser, J, Shetty, K.D, Jaggi, T, Middleton, B, Kuperman, G.J, Khorasani, R, Tanasijevic, M, Bates, D.W (2006) Return on Investment for a Computerized Physician Order Entry System. J Am Med Inform Assoc 13:261-266.</i> 4. <i>Virk, P., Bates, D.W, Halamka, J, Fournier, G.A Rothschild, J.M (2006) Analyzing Transaction Workflows in an ePrescribing System. AMIA Annu Symp Proc 2006:1129</i>
--------------	---



Modul name	Health Financing Management
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211108</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>Dr. Dwi Endarti, M.Sc, Apt Prof. dr. Ali Ghufroon Mukti, M.Sc, PhD Dr. Dyah Ayu Puspandari, M.Kes, MBA, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-Centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering pharmaceutical and social pharmaceutical management practice methods to solve pharmaceutical/health problems 2. Formulate new ideas for implementing management in the fields of pharmacy and social pharmacy</i>
Content	<i>This course discusses topics on the social security system and universal health coverage system, which will be discussed in more detail, including the principles of health financing systems and health insurance, the process of preparing health benefits</i>



	<i>packages and the role of health technology assessment in the process of preparing health benefits packages, problems with the potential to occur in the implementation of the national health insurance (BPJS), and the role of pharmacists in the health financing system and national health insurance.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>Main references :</i> <i>1. Irwin, Lewis, G., 2003,.The Policy Analyst's Handbook, M.E.Sharpe Inc, New York.</i> <i>2. Mukti, A.G., 2007, Jaminan Kesehatan: Konsep Desentralisasi Terintegrasi, Magister Kebijakan Pembiayaan dan Manajemen Asuransi Kesehatan, UGM, Yogyakarta.</i> <i>3. Mukti, A.G., 2007, Reformasi Dalam Pembiayaan Kesehatan dan Prospek Ke Depan, Magister Kebijakan Pembiayaan dan Manajemen asuransi Kesehatan, UGM, Yogyakarta</i> <i>4. Mukti, A.G., 2007, Good Governance dalam Sistem Pembiayaan Kesehatan, Magister Kebijakan Pembiayaan Kesehatan dan Manajemen asuransi Kesehatan, UGM, Yogyakarta</i> <i>5. WHO, Universal Health Coverage, 2009, Universal Health Coverage a commitment to close the gap, Save The Children, London.</i> <i>6. Drummond, M. F., Drummond, M. F., & McGuire, A. (2001). Economic evaluation in health care: merging theory with practice. OUP Oxford.</i> <i>Additional :</i> <i>Value in Health Journal</i> <i>Regulation of the Minister of Health regarding National Health Insurance</i>



Modul name	Pharmacoepidemiology and Pharmacoeconomics
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211109</i>
Semester(s) in which the module is taught	<i>I</i>
Person responsible for the module	<i>Prof. Dr. Tri Murti Andayani, SpFRS, Apt</i>
Lecturer	<i>Prof. Dr. Tri Murti Andayani, SpFRS, Apt Prof. Dr. Erna Kristin, M.Si, Apt Dr. Dwi Endarti, M.Sc, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-Centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>150 minutes of in-class lectures 180 minutes of structured assignment activities 180 minutes of independent activities In total 510 minutes/week In 16 weeks = 8160 minutes = 136 hours 1 ECTS = 28 hours</i>
Credit points	<i>3 CSU = 4.8 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering pharmaceutical and social pharmacy management practice methods to solve pharmaceutical/health problems. 2. Formulate new ideas for implementing management in the fields of pharmacy and social pharmacy;</i>
Content	<i>The Pharmacoepidemiology and Pharmacoeconomics course studies the introduction to Pharmacoepidemiology, Evidence-based medicine, Medication error and rational drug use, Advanced Epidemiology, Observational and experimental</i>



	<i>research designs, Bias and confounding in Pharmacoepidemiology, Post-marketing surveillance, Pharmacovigilance, Spontaneous reporting system and Record Linkage, Introduction of Pharmacoeconomics, Measuring costs and outcomes (clinical, economic and humanistic), Pharmacoeconomics evaluation methods (Cost of Illness, Cost-minimization analysis, Cost-effectiveness analysis, Cost-Benefit analysis, Cost-utility analysis), approach to pharmacoeconomic studies, decision analysis models, Markov models, overcoming uncertainty in modeling, CHEERS, ECOBIAS, and presentation of pharmacoeconomic study results</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>Main references :</i> <i>1. Bootman JL., Townsend RJ., McGhan WF. 2015, Principles of Pharmacoeconomics, 3rdEd, Harvey Whitney Books Company, Cincinnati</i> <i>2. Walley T., Haycox A., Boland A. 2004, Pharmacoeconomics, Churchill Livingstone, Philadelphia</i> <i>3. Strom BL. 2000, Pharmacoepidemiology, John Wiley & Sons Ltd, New York</i> <i>Additional References :</i> <i>1. Rascati KL. 2009, Essentials of Pharmacoeconomics, Lippincott Williams and Wilkins, Philadelphia</i> <i>2. Rychlik R. 2002, Strategies in Pharmacoeconomics and Outcomes Research, Pharmaceutical Product Press, New York</i> <i>3. Vogenberg FR. 2001, Introduction to Applied Pharmacoeconomics, Mc Graw-Hill Companies, USA</i>



Modul name	Organizational Strategic Management in Pharmacy
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211201</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Dr. Satibi, M.Si</i>
Lecturer	<i>Prof. Basu Swastha Dharmmesta, MBA, PhD. Prof. Dr. Satibi, M.Si</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering the principles of legality, social aspects, science, and technology that underlie the application of pharmaceutical research results for the community</i> <i>2. Able to solve problems through effective communication and create effective networks through an inter or multidisciplinary approach.</i>



Content	<i>This course provides an overview of how companies formulate their strategies, both at the corporate and business levels, for both large and small enterprises. Companies and their interactions with the environment are constantly changing, not only now but also in the future. The business world is undergoing a global transformation process. Every day, we encounter acquisitions, outsourcing, downsizing, and strategic alliances, all of which are encompassed within strategic management. Additionally, it provides an overview of how to develop implementation plans and execute business strategies. The main topics focus on: 1) environmental observation, 2) strategy formulation, 3) strategy implementation, and 4) performance evaluation, reviewing new developments, and conducting control processes.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Thompson, A.A., Gamble, J.E., Peteraf, M.A., Strickland III, A.J., 2018 Crafting and Executing Strategy, The Quest For Competitive Advantage: Concept and Case, twenty first edition, McGraw-Hill Education, New York.</i> <i>2. Wheelen, T.L., Hunger, J.D, 2018, Strategic Management and Business Policy, 11th Ed. Upper Saddle River, NJ: Pearson Education, Inc</i> <i>Pendukung</i> <i>1. Porter, ME, 1980, Competitive Strategy: Technique for Analyzing Industries and Competitors, New York: The Free Press.</i> <i>2. Dharmesta, B.S., Pengantar Bisnis Modern.</i>



Modul name	Internship/ Project-based Learning
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211216</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dwi Endarti, Dr., M.Sc, Apt</i>
Lecturer	<i>Dwi Endarti, Dr., M.Sc, Apt Chairun Wiedyaningsih, Dra., M.Kes, M.App.Sc, Apt Satibi, Prof. Dr., M.Si., Apt. Susi Ari Kristina, Prof. Dr., M.Kes, Apt Anna Wahyuni Widayati, Dr. MPH, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : Project-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>8 hours per day for 5 days of activities in work setting 8 hours for 10 days of independent activities 8 hours per day for 5 days of final report and presentation In 20 days x 8 hours = 160 hours 1 ECTS = 28 hours Conversion hours to ECTS: 160 hours/28 hours = 5.7 ECTS for 2 credits 1 credit = 2.9 ECTS</i>
Credit points	<i>2 CSU = 5.8 ECTS</i>
Requirements according to the examination regulations	<i>Attendance in internship institution min. 40 hours.</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Criticizing and providing input for improvement in the point of view of pharmacy management and social pharmacy on pharmaceutical/health problem-solving policies;</i> <i>2. Applying logical, critical, systematic, and innovative thinking by utilizing information technology to obtain solutions according to areas of expertise with integrity embodied in scientific documents.</i>



Content	<i>Implementation of this course is through internships in various fields of pharmaceutical or related work, especially those that are pharmaceutical managerial application positions. The output is in the form of a project based report on the results of the internship as a provision for developing a thesis topic or deepening the application of pharmaceutical management science and social pharmacy.</i>
Study and examination requirements	<i>60% Report, 40% presentation/discussion/active participation</i>
Examination forms	<i>presentation, discussion, task</i>
Media employed	<i>Slide, Face to face instruction, Board, LMS</i>
Reading list	<i>Internship guidance book</i>



Modul name	Thesis I
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211203</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>Dr. Dwi Endarti, M.Sc, Apt Dr. Chairun Widyaningsih, M.Kes, M.App.Sc, Apt Prof. Dr. Satibi, M.Si, Apt Dr. Susi Ari Kristina, M.Kes, Apt Dr. Anna Wahyuni Widayati</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-Centered Learning : project-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>The activities for 2 CSU consist of 6 hours/day for 80 days allocated for activities. In total 480 hours within one semester allocated for in-class lectures, structured activities, self-directed learning and writing a thesis proposal.</i>
Credit points	<i>2 CSU = 8.6 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. honesty, responsibility, self-confidence, emotional maturity, ethics, and awareness of being a lifelong learner</i> <i>2. Synthesize and integrate pharmaceutical management and social pharmacy science in a multi- and interdisciplinary manner</i> <i>3. Able to apply logical, critical, systematic and innovative thinking by utilizing information technology to produce solutions according to the field of expertise with integrity which are realized in scientific documents</i>



Content	<i>This course focuses on the preparation of a structured and organized proposal. The output of this course is a proposal text ready to be submitted in the proposal exam and course assessment of the proposal exam.</i>
Study and examination requirement	<i>100% Thesis proposal examination</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>Thesis guidance book</i>



Modul name	Thesis II
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211301</i>
Semester(s) in which the module is taught	<i>III and IV</i>
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>All teachers</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-Centered Learning : Project-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>The activities for 8 CSU consist of 6 hours/day for 120 days allocated for activities. In total 720 hours within one semester allocated for in-class lectures, structured activities, self-directed learning and writing a thesis proposal.</i>
Credit points	<i>8 CSU = 34.4 ECTS</i>
Requirements according to the examination regulations	<i>Thesis I</i>
Recommended prerequisites	-
Module objectives/intended learning outcomes	<i>1. Demonstrating the attitude of Pancasila and awareness of the interests of the nation and state.</i> <i>2. Mastering the application theory of pharmacy management and social pharmacy in depth to develop research and implement the research results for scientific development;</i> <i>3. Synthesizing and integrating the knowledge of pharmacy management and social pharmacy in a multidisciplinary and interdisciplinary manner;</i> <i>4. Applying logical, critical, systematic, and innovative thinking by utilizing information technology to obtain solutions according to areas of expertise with integrity embodied in scientific documents;</i>
Content	<i>This course contains the implementation of thesis research based on the thesis proposal (thesis 1). The output of this course is a final thesis report that is being examined by the examiners and publication related to thesis research .</i>
Study and examination requirements	<i>80% thesis defense examination, 20% seminar.</i>
Examination forms	<i>Thesis defense examination and seminar</i>
Media employed	<i>Slide, Face to face instruction, Board, LMS</i>
Reading list	<i>Thesis guidance book</i>



Modul name	Pharmaceutical Care System in Health Facilities
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211204</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>Dr. Dwi Endarti, M.Sc, Apt Dr. Chairun Wiedyaningsih, M.Kes., M. App.Sc., Apt. Asri Riswiyanti, MSc, Apt/Praktisi RS Sardjito Anggraini Citra Ryshang Bathari, M.Pharm Clin, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Solve pharmaceutical/health problems by utilizing pharmaceutical management and social pharmacy knowledge through an interdisciplinary/multidisciplinary approach</i> <i>2. Able to develop work networks, adapt, be creative, contribute, supervise, evaluate and make decisions in order to demonstrate independent and group performance to apply science to social life</i>



Content	<i>This course contains materials: concepts and applications of Pharmaceutical Care and Medication Therapy Management; Pharmaceutical Services Based on Evidence-Based Medicine; Assessment, prevention and management of Drug-Related Problems (DRP); Monitoring of Drug Levels in the Blood; Drug Therapeutic Monitoring (DTM); Drug Side Effect Monitoring (DESM)/Adverse Drug Reaction; Tracing the history of drug use and drug reconciliation; Drug Information Services (DIS) and Counseling; Aseptic Dispensing Technique; and Total Parenteral Nutrition.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>Main references :</i> <i>1. Pharmaceutical Service Standards at Community Health Centers</i> <i>2. Pharmaceutical Service Standards in Hospitals</i> <i>3. Management Sciences for Health. 2012. MDS-3: managing access to medicine and health technology. Arlington, VA: Management Sciences for Health.</i> <i>Additional :</i> <i>Articles or journals on related topics</i>



Modul name	Pharmaceutical Control and Development Management in Hospital
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211205</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Dr. Satibi, M.Si., Apt</i>
Lecturer	<i>Prof. Dr. Satibi, M.Si., Apt Dr. Nanang Munif Yasin, M.Pharm, Apt Dr. Endang Yuniarti, M.Kes., Apt Taufiqurrahman, M.Pharm.Clin, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Master the theory and application theory in the field of pharmaceutical management in depth to develop research and apply research results for scientific development;</i> <i>2. Master the principles of legality, social aspects, science and technology that underlie the application of pharmaceutical research results to society.</i>



	3. <i>Able to deepen skills in navigating current issues in pharmaceutical management science based on local wisdom</i>
Content	<i>This course discusses the vital role of management control and development, drug control in FRS, service standards, processes and service development in FRS, the concept of zero defects and control in hospital pharmacy services, Balanced Scorecard (BSC) in performance measurement, systems in strategic management and development of a strategic map based on BSC, patient safety at hospitals, quality assurance of pharmaceutical services and control of human resources. In addition, it will also discuss increasing quality, patient safety, and strengthening human resources through lean hospitals.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Anonim, 2004, Keputusan MenKes RI No 1197/MenKes/SK/IX/2004 tentang standar Pelayanan Farmasi di Rumah Sakit, DepKes RI, Jakarta</i> <i>2. Anonim, -, Instrumen Self Assessment ,Akreditasi Rumah Sakit, Pelayanan farmasi, Dep Kes RI, Jakarta</i> <i>3. Anonim, 1995, Practice Standards of ASHP, USA</i> <i>4. Becker, B.E., Huselid, M.A., Ulrich D ., 2001., The HR Scorecard : Linking People, Strategy, and Performance, Harvard Business School Pres, Boston, Massachusettts</i> <i>5. Brown TR, 1992, Handbook of Institutional Pharmacy Practice, American Society of Hospital Pharmacists, 4630 Montgomery Avenue, Wahington DC</i> <i>6. George M.L., 2004, Lean Six Sigma for Service, McGraw-Hill company,</i> <i>7. Kaplan, R.S., dan Norton D.P., 2006, Alignment: Using the Balanced Scorecard to Create Corporate Synergies, Harvard Business School Pres, Boston, Massachusettts</i> <i>8. Quick, J.D., Rankin, J.R, Laing, R.O., O'Connor.R.W., 1997, Managing Drug Supply, second edition, Kumarin Press, West Harford, USA</i> <i>9. Trisnantoro, L., 2005, Aspek Strategi Manajemen Rumah Sakit, Andi Offset., Yogyakarta</i>



Modul name	Management System of Drug Supply in Hospital
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211206</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Dr. Satibi, M.Si., Apt</i>
Lecturer	<i>Prof. Dr. Satibi, M.Si., Apt Prof. Dr. Susi Ari Kristina, M.Kes, Apt Dr. Endang Yuniarti, M.Kes., Apt L. Endang Budiarti, M.Pharm.Clin, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Capable of mastering the skills to navigate current issues in pharmaceutical science based on local wisdom.</i> <i>2. Capable of applying logical, critical, systematic, and innovative thinking by utilizing information technology to generate solutions aligned with the expertise field, manifested in scientific documents with integrity.</i> <i>3. Capable of utilizing information technology in the context of scientific development and implementation of expertise fields.</i>



Content	<i>This course encompasses several key areas, including drug selection and planning, criteria for drug selection, and the hospital formulary. It also discusses planning methods and case studies in hospital drug planning, inventory control in hospital drug management, and advanced inventory control techniques such as ABC, EOQ, EOI, and VEN analysis, accompanied by case studies. Additionally, it covers drug procurement in hospitals, including e-procurement, e-catalogs, supplier selection, buffer stock, and best practices in drug procurement. The section on drug distribution system design emphasizes designing efficient and effective distribution systems to prevent prescriptions from leaving the hospital premises. It also examines rational drug use, investigations into drug utilization, rational drug information, and promotion of prescribing practices. Furthermore, it explores single-door pharmacy models and case studies in drug management, efficiency, effectiveness indicators, comprehensive cases, and supportive drug management.</i>
Study and examination requirements	25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation
Examination forms	Final and Mid-exam, presentation, task
Media employed	Slide, Face to face instruction, LMSeLOK
Reading list	1. Dessele, P., Shane, Z., David, P., 2005, <i>Pharmacy Management Assentials for All Practice Setting</i>, The McGraww-Hill Compony, USA 2. Peterson, A. M., 2004, <i>Managing Pharmacy Practice:s Principles, Strategies, and system</i>, CRC Press, New York 3. Quick, J.D., Rankin, J.R, Laing, R.O., O'Connor.R.W., Hogerzeil, H.V., Dukes, M.N.G., Garnet, A., 1997, <i>Managing Drug Supply The Selection, Procurement, Distributions and Use of Pharmaceutical</i>, second edition, revised and Expanded, Kumarin Press, West Harford 4. Taylor, K. M.G and Harding, G., 2005, <i>Pharmacy Practice</i>, Taylor & Francis Inc, London



Modul name	Drug Use Study
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211207</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Chairun Wiedyaningsih, Dr., M.Kes, M.App.Sc, Apt</i>
Lecturer	<i>Chairun Wiedyaningsih, Dr., M.Kes, M.App.Sc, Apt Purwantiningsih, Dr., M.Si, Apt Tri Murti Andayani, Prof. Dr., Sp.FRS, Apt Practitioners from Ministry of Health</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Able to demonstrate attitudes of honesty, responsibility, confidence, emotional maturity, ethics, and lifelong learning awareness.</i> <i>2. Able to critique and provide improvement feedback from the perspective of pharmaceutical management and social pharmacy on policies addressing pharmaceutical/healthcare issues.</i>
Content	<i>In this course, students study the concept of DUE (Drug Use Evaluation), understand the process of implementing DUE,</i>



	<i>discuss DUE applications to improve pharmaceutical therapy, and prepare DUE criteria, activities of the Therapeutic Pharmacy Committee (KFT), including drug management activities and implementing strategies to address the problem. In addition, this course also studies the systematic process of evaluating and selecting new drugs for formularies and drug use, which involves strategies to increase drug use, including socialization and education, standard treatment guidelines, and other managerial activities, including the preparation of regulations</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. Drug Utilization Research: Methods and Applications. Monique Elseviers, Björn Wettermark, Anna Birna Almarsdóttir, Morten Andersen, Ria Benko, Marion Bennie, Irene Eriksson, Brian Godman, Wiley-Blackwell; 1st edition (April 1, 2016) 2. Drug Utilization Studies. Methods and Uses. WHO Regional Publications European Series No. 45 Edited by MNG Dukes 3. Introduction to Drug Utilization Research, World Health Organization



Modul name	Drug Distribution Management
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211208</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>Dr. Dwi Endarti, M.Sc, Apt Prof. Dr. Satibi, M.Si, Apt. Practitioner from Ministry of Health</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective-course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	-
Module objectives/intended learning outcomes	<i>1. Mastering pharmaceutical and social pharmacy management practice methods to solve pharmaceutical/health problems</i> <i>2. Formulate new ideas for implementing management in the fields of pharmacy and social pharmacy</i>
Content	<i>The Drug Distribution Management course contains materials: Drug Management Overview, Drug Selection, Drug Planning and Procurement, Advanced Drug Planning and Procurement, VEN (Vital Essential & Non-Essential) Analysis, EOQ (Economic Order Quantity) & ABC, RUD, Case Studies Drug Supply, Challenges and</i>



	<i>Opportunities as well as General Policy, Concept of Public Drug Supply, Drug Procurement, Principles of Public Drug Distribution, and Supervision of Public Drug Distribution. Problems related to drug distribution at the national and global levels are also discussed in this course.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Management Sciences for Health. 2012. MDS-3: managing access to medicine and health technology. Arlington, VA: Management Sciences for Health.</i> <i>2. Section: Chapter 08: Pharmaceutical Supply Strategies, Chapter 22: Managing distribution</i> <i>3. Cara Distribusi Obat yang Baik (CDOB)</i>



Modul name	Social Aspect - Drug Use Behavior
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211209</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>apt. Anna Wahyuni W, M.P.H., Ph.D.</i>
Lecturer	<i>apt. Anna Wahyuni W, M.P.H., Ph.D. Prof. Dr. apt. Susi Ari Kristina, M. Kes. Dr. apt. Chairun Wiedyaningsih, M. Kes., M. App.Sc - CW Prof. Dr. Yayi Suryo Prabandari, M.Si. - YSP</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective-course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Resolve pharmaceutical/health issues by utilizing pharmaceutical management and social pharmacy knowledge through interdisciplinary/multidisciplinary approaches.</i> <i>2. Capable of developing networks, adapting, creating, contributing, supervising, evaluating, and making decisions to demonstrate individual and group performance in applying knowledge to community life.</i>



Content	<i>The Social Aspects of Drug Use Behavior course aims to provide new insights to develop pharmaceutical practice toward patient welfare by understanding the constructs, foundations, and outcomes of individual/exceptional patient behavior using their drugs correctly and rationally. The subject matter of this course includes Definitions and Meanings of Health, Illness, Sickness, and Disease; Health behavior theories relevant for pharmacists and recent development of behavioral medicines; Health promotion and disease prevention; Patient lived experiences with medicines and determinants of medication use; Predicting and Detecting Noncompliance/nonadherence; Explaining and Changing Noncompliant Behavior; Consumer Behavior Regarding the Choice of Prescription and Nonprescription Medications; Cultural Issues in the Practice of Pharmacy; Determinants of Prescribing Behavior</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. Wertheimer, A., Babar, Z. (2017). <i>Social and Administrative Aspects of Pharmacy in Low- and Middle-Income Countries: Present Challenges and Future Solutions</i>. United Kingdom: Elsevier Science. 2. Harding, G., Taylor, K. M. G., Nettleton, S. (2018). <i>Sociology for Pharmacists: An Introduction</i>. United States: Taylor & Francis. 3. Wertheimer, A. I., Rickles, N. M., Smith, M. C. (2010). <i>Social and Behavioral Aspects of Pharmaceutical Care</i>. United States: Jones & Bartlett Publishers. 4. Rimer, B. K., Viswanath, K. (2008). <i>Health Behavior and Health Education: Theory, Research, and Practice</i>. Ukraine: Wiley. 5. <i>The Handbook of Health Behavior Change</i>. (2018). United States: Springer Publishing Company. <i>Additional :</i> 1. Widayanti, A. W., Green, J. A., Heydon, S., & Norris, P. (2020). Health-seeking behavior of people in Indonesia: A narrative review. <i>Journal of epidemiology and global health</i>, 10(1), 6. 2. Widayanti, A. W., Norris, P., Heydon, S., & Green, J. A. (2020). Medicine taking behaviours of people with type 2 diabetes in Indonesia: a qualitative study. <i>International Journal of Clinical Pharmacy</i>, 42, 31-39.



Modul name	Pharmacy and Health Policy
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211210</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Chairun Wiedyaningsih, Dr., M.Kes, M.App.Sc, Apt</i>
Lecturer	<i>Chairun Wiedyaningsih, Dr., M.Kes, M.App.Sc, Apt Prof. Dr. Sri Suryawati, Apt Prof. Dr. Susi Ari Kristina, M.Kes., Apt Praktisi Ditjen Farmalkes Kemenkes</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective-course, Thesis related courses</i>
Type of teaching	<i>Student-centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Demonstrate a Pancasila attitude and awareness of the interests of the nation and state</i> <i>2. Criticize and provide input for improvements from the perspective of pharmaceutical management and social pharmacy science towards policies for resolving pharmaceutical/health problems</i>



Content	<i>In this course, students will study health and drug policy analysis, which consists of basic concepts of health policy, evaluating health laws (laws related to JKN implementation, narcotics and psychotropic laws, public health service laws), understanding processes and the flow of making regulations, preparing scientific evidence for the preparation of policy interventions, identifying strengths and weaknesses, supporting factors and stakeholders related to the implementation of health and drug policy interventions.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Managing Drug Supply (MDS 3)- Managing Access to Medicines and Health Technologies, Management Sciences for Health</i> <i>2. Various Policies in the Field of Health and Pharmacy</i>



Modul name	Health Promotion in Public Health Pharmacy
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211211</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Dr. Susi Ari Kristina, M. Kes., Apt</i>
Lecturer	<i>Prof. Dr. Susi Ari Kristina, M. Kes., Apt Anna Wahyuni Widayanti, Dr. MPH, Apt Yayi Suryo Prabandari, Prof. Dr., M.Si</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Solve pharmaceutical/health problems by utilizing pharmaceutical management and social pharmacy knowledge through an interdisciplinary/multidisciplinary approach</i> <i>2. Able to develop work networks, adapt, be creative, contribute, supervise, evaluate and make decisions in order to demonstrate independent and group performance to apply science to social life</i>



Content	<i>In this course, students will: study the theory and concept of health promotion and its application in health education and adherence to drug use; conduct an analysis of the theory of health belief model with individual health behavior; analyze the influence of psychological, physiological, sociological, cultural, and spiritual variables on patient health and health promotion; formulate and implement management strategies for risk analysis, risk reduction, screening, lifestyle changes, disease prevention, and disease detection for culture-based health promotion; develop theory-based health promotion programs and research results; and conduct case studies containing health assessment/risk data, intervention strategies, theoretical frameworks, and evaluation of interventions.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>1. Pharmacy 2030: a professional vision. Royal Pharmaceutical Society. https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Scotland/Pharmacy%202030%20vision/Pharmacy%202030%20Full%20professional%20vision%20Jan22.pdf?ver=WD2LOOTwG4ejGBfEPC6D0w%3d%3d (accessed May 2022).</i> <i>2. Lindsey L, Husband A, Nazar H, Todd A. Promoting the early detection of cancer: A systematic review of community pharmacy-based education and screening interventions. Cancer Epidemiol 2015;39:673-81.</i> <i>3. Fitzgerald N, McCaig D, Watson H, Thomson D, Stewart DC. Development, Implementation and evaluation of a pilot project to deliver interventions on alcohol issues in community pharmacies. International Journal of Pharmacy Practice 0.2008;16(1):17-22.</i> <i>4. Shirdel A, Pourreza A, Daemi A, et al. Health-promoting services provided in pharmacies: A systematic review. J Educ Health Promot 2021;10:234. doi:10.4103/jehp.jehp_1374_20</i>



Modul name	Operation Management
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211212</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Drs. Wakhid Slamet Ciptono, MBA, MPM, PhD</i>
Lecturer	<i>Drs. Wakhid Slamet Ciptono, MBA, MPM, PhD Prof. Dr. Satibi, M.Si, Apt Didik Suyatno, S.Si., M.M., Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering pharmaceutical and social pharmaceutical management practice methods to solve pharmaceutical/health problems.</i> <i>2. Synthesize and integrate pharmaceutical management and social pharmacy science in a multi- and interdisciplinary manner;</i>
Content	<i>The new paradigm of operation management is oriented toward the Fast-Response Operations (FRO) or Triple-A strategy: Agility, Adaptability, and Alignment. Operations Management (practice</i>



	<i>for pharmacy) with an integrated approach seeks to relate to the new developments of organizational management, financial management, management information systems, and marketing management of pharmaceuticals and health products. In addition, operation management (in pharmacy) also develops quantitative and qualitative approaches in synergy. For this reason, Operations Management (OM) emphasizes topics relevant to pharmaceuticals (e.g., cGMP for Pharmaceuticals, operational excellence).</i>
Study and examination requirement	25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. Heizer, J. and B. Render. 2011. <i>Operations Management</i>. 10th ed. Upper Saddle River, NJ: Pearson Education, Inc. 2. Ahoy, C.K. 2009. <i>Customer-Driven Operations Management: Aligning Business Processes and Quality Tools to Create Operational Effectiveness in Your Company</i>. USA: The McGraw-Hill Companies. 3. Willig, S.H., tuckerman, M.M., and Hitchings IV, W.S. 1982. <i>Good Manufacturing Practices for Pharmaceuticals: A Plan for Total Quality Control</i>. New York: Marcel Dekker, Inc. 4. Finch, B.J. 2008. <i>Operations Now: Supply-Chain Profitability and Performance</i>. 3rd Ed. New York, NY: McGraw-Hill/Irwin



Modul name	Production Management and Quality Assurance
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211213</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Dr. apt. T. N. Saifullah Sulaiman, M.Si</i>
Lecturer	<i>Prof. Dr. apt. T. N. Saifullah Sulaiman, M.Si Dr. apt. Tatang Irianti, M.Sc. Dr. apt. Agustina Ari Murti Budi Hastuti, M.Sc</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Demonstrating a Pancasila attitude and awareness of the interests of the nation and state.</i> <i>2. Critiquing and providing improvement feedback from the perspective of pharmaceutical management and social pharmacy towards policies addressing pharmaceutical/healthcare issues.</i>
Content	<i>The Production Management and Quality Assurance course contains materials: Quality control of medicinal products; Instrument Calibration and Qualification; Analysis Method Validation; Quality assurance-Waste and environment; Quality</i>



	<i>assurance-sanitation and hygiene; Definition and scope of GMP and quality of drug preparations; Production of drug supplies (HR, Starting materials); Procurement, raw material warehouse, auxiliary materials, packaging, finished product warehouse; Production (PPIC, Processing solid, processing liquid); Packaging, machine & utility maintenance (supporting advice); New product design, registration, and patents; Balanced score card; IT.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. BPOM, 2018, Penerapan Pedoman Cara Pembuatan Obat Yang Baik, BPOM RI, Jakarta 2. BPOM, 2012, Petunjuk Operasional Penerapan Pedoman Cara Pembuatan Obat Yang Baik, BPOM RI, Jakarta. 3. ICH, 2023, ICH-Quality Guidelines, https://www.ich.org/page/quality-guidelines. 4. Joseph D. Nally, (editor), 2007, Good Manufacturing Practices for Pharmaceuticals, Informa Healthcare USA, Inc 5. Kate McCormick, 2002, Quality: Pharmaceutical Engineering Series, Elsevier Science Linacre House, Jordan Hill, Oxford.



Modul name	Development of Pharmaceutical Industry Management
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211214</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Teuku Nanda Saifullah Sulaiman, Dr., M.Si., Apt</i>
Lecturer	<i>Prof. Teuku Nanda Saifullah Sulaiman, Dr., M.Si., Apt Pre Agusta Siswanto, Drs., MBA, Apt. Bondan Ardiningtyas, Dr., M.Sc., Apt.</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>3.2. Formulating new ideas for the application of management in the pharmacy and social pharmacy</i>
Content	<i>This course discusses applied information management, production management, design and production flow, quality control management, quality control process design and flow, material quality management and production results, cost management and production time, logistics management, production control system management, production planning</i>



	<i>management, and product and project development management.</i>
Study and examination requirement	25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. Cole, G.C. (1990). <i>Pharmaceutical Production Facilities: Design and Applications</i>. Ellis Harwood Limited, Great Britain. [2] 2. Dilworth, (1981). <i>Production and Operations Management: Manufacturing and Service</i>. McGraw-Hill International Editions, New York. [6] 3. Jerome. (n.d.). <i>Project Management</i>. <i>Encyclopedia of Pharmaceutical Technology</i>, Volume 13, p. 121.



Modul name	Production Planning and Inventory Control
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211215</i>
Semester(s) in which the module is taught	II
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>Dr. Dwi Endarti, M.Sc, Apt Dr. apt. Teuku Nanda Saifullah Sulaiman, S.Si., M.Si. Drs. Pre Agusta Siswantoro, MBA, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, thesis related</i>
Type of teaching	<i>Student-Centered Learning : case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	-
Module objectives/intended learning outcomes	<i>1. Mastering pharmaceutical and social pharmacy management practice methods to solve pharmaceutical/health problems</i> <i>2. Solve pharmaceutical/health problems by utilizing pharmaceutical management and social pharmacy knowledge through an interdisciplinary/multidisciplinary approach</i>
Content	<i>This course studies planning practices in the production process, controlling raw materials until they become finished products in</i>



	<i>the pharmaceutical industry, and ensuring that a series of processes are according to plan.</i>
Study and examination requirement	25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. <i>Management Sciences for Health. 2012. MDS-3: managing access to medicine and health technology. Arlington, VA: Management Sciences for Health.</i> 2. <i>Articles or journals related to drug distribution management</i>



Modul name	Microeconomics
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211216</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dwi Endarti, Dr., M.Sc, Apt</i>
Lecturer	<i>Dwi Endarti, Dr., M.Sc, Apt Samsubar Saleh, Prof. Dr., M.Soc.Sc.</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course</i>
Type of teaching	<i>Student-centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Mastering the application theory of pharmacy management and social pharmacy in depth to develop research and implement the research results for scientific development;</i> <i>2. Synthesizing and integrating the knowledge of pharmacy management and social pharmacy in a multidisciplinary and interdisciplinary manner</i>
Content	<i>The Microeconomics course contains material on Introduction to microeconomics, Shifting boundaries between markets and government, Basic elements of demand and supply, Applications of demand and supply, Demand and consumer behavior, Organization of production and business, Analysis of economic costs, Perfect competitive market behavior, Market competition imperfect equilibrium money markets, monopolistic and oligopolistic competition, and uncertainty and game theory. This course also discusses the application of microeconomics to the demand and supply of pharmaceutical products.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>



Media employed	<i>Slide, Face to face instruction, Board, LMS</i>
Reading list	<i>Samuelson, P.A, Nordhaus, W.D., 1998, Economics, 16th Edition, McGraw-Hill</i>



Modul name	Pharmacoeconomics Modeling
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211217</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dr. Dwi Endarti, M.Sc, Apt</i>
Lecturer	<i>Dr. Dwi Endarti, M.Sc, Apt Prof. Dr. Tri Murti Andayani, SpFRS, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course</i>
Type of teaching	<i>Student-centered Learning : Case-based and project-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Able to formulate new ideas for the application of management in the field of pharmacy and social pharmacy. 2. Able to solve pharmaceutical/health problems by utilizing the science of pharmacy management and social pharmacy through interdisciplinary/multidisciplinary approaches.</i>
Content	<i>Pharmacoeconomic studies with modeling approaches involve constructing Decision Tree and Markov models, executing and interpreting them, and inputting cost, outcome, and transitional probability data. Sensitivity analyses, including one-way and probabilistic sensitivity analyses, are performed to assess model reliability. These studies employ project-based learning methods, concluding with presentations and discussions on project outcomes.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, project</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>



Reading list	1. <i>Bootman JL., Townsend RJ., McGhan WF. 2015, Principles of Pharmacoeconomics, 3rdEd, Harvey Whitney Books Company, Cincinnati</i> 2. <i>Walley T., Haycox A., Boland A. 2004, Pharmacoeconomics, Churchill Livingstone, Philadelphia</i> 3. <i>Rascati KL. 2009, Essentials of Pharmacoeconomics, Lippincott Williams and Wilkins, Philadelphia</i> 4. <i>Rychlik R. 2002, Strategies in Pharmacoeconomics and Outcomes Research, Pharmaceutical Product Press, New York</i> 5. <i>Vogenberg FR. 2001, Introduction to Applied Pharmacoeconomics, Mc Graw-Hill Companies, USA</i>
--------------	--



Modul name	Evidence-Based Medicine
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211218</i>
Semester(s) in which the module is taught	<i>2</i>
Person responsible for the module	<i>Chairun Wiedyaningsih, Dra., M.Kes, M.App.Sc, Apt</i>
Lecturer	<i>Chairun Wiedyaningsih, Dra., M.Kes, M.App.Sc, Apt Erna Kristin, Prof. Dr., Msi, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course, Thesis related courses</i>
Type of teaching	<i>Student-centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Demonstrating the attitude of Pancasila and awareness of the interests of the nation and state. 2. Applying logical, critical, systematic, and innovative thinking by utilizing information technology to obtain solutions according to areas of expertise with integrity embodied in scientific documents;</i>
Content	<i>This course teaches how to provide scientific evidence-based data regarding safety, efficacy, affordability, and acceptability (details added), including the methodology for providing these data.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, Board, LMS</i>



Reading list	1. Moore N, Blin P, Droz C. <i>Pharmacoepidemiology. Concepts and Principles of Pharmacology: 100 Years of the Handbook of Experimental Pharmacology.</i> 2019;433-51. 2. Strom BL, Kimmel SE, Hennessy S, editors. <i>Textbook of pharmacoepidemiology.</i> John Wiley & Sons; 2013 Jul 3. 3. Garbe E, Suissa S, Douros A. <i>Pharmacoepidemiology. In Handbook of Epidemiology</i> 2023 Mar 23 (pp. 1-55). New York, NY: Springer New York.
--------------	---



Modul name	Drug Safety for Public Health
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211219</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dr. Susi Ari Kristina, M.Kes, Apt</i>
Lecturer	<i>Dr. Susi Ari Kristina, M.Kes, Apt Dr. Anna Wahyuni W, MPH., Apt Dr. Chairun Wiedyaningsih, M. Kes., M.AppSc, Apt Prof. Dr. Erna Kristin, M.Si., Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course</i>
Type of teaching	<i>Student-Centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Able to deepen skills in navigating current issues in pharmaceutical science based on local wisdom</i> <i>2. Able to apply logical, critical, systematic and innovative thinking by utilizing information technology to produce solutions according to the field of expertise with integrity which are realized in scientific documents;</i> <i>3. Able to use information technology in the context of scientific development and implementation of areas of expertise</i>



Content	<i>This course discusses an introduction to public health and the role of pharmacy in public health, the use of drugs and health products in public health programs, the safety of drug use in public health programs, the effectiveness and risk assessment of therapy, and the integration of pharmacovigilance and public health programs. Case studies on the safety of drug use in public health programs will also be given in this course.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, Board, LMS</i>
Reading list	1. Geneva: World Health Organization. Looking at the Pharmacovigilance: ensuring the safe use of medicines. WHO Policy Perspectives on Medicines. Geneva: WHO; 2004. Available from: http://www.whqlibdoc.who.int/hq/2004/WHO_EDM_2004.8.pdf 2. Harmark L, van Grootheest AC. Pharmacovigilance: Methods, recent developments and future perspectives. <i>Eur J Clin Pharmacol</i> 2008;64:743-52 3. WHO Medicines Strategy: Framework for Action in Essential Drugs and Medicines Policy 2000-2003. Available from: http://www.apps.who.int/medicinedocs/en/d/Jwhozip16e/8.html. 4. Olsson S. The role of the WHO Programme for International Drug Monitoring in coordinating worldwide drug safety efforts. <i>Drug Saf</i> 1998;19:1-10 5. Folb PI, ten Ham M. Drug monitoring in developing countries: A drug regulator's perspective. <i>Drug Inf J</i> 1995;29:303-5.



Modul name	Systematic Review and Meta-Analysis
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211220</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Anna Wahyuni Widayati, Dr. MPH, Apt</i>
Lecturer	<i>Anna Wahyuni Widayati, Dr. MPH, Apt Susi Ari Kristina, Prof. Dr., M.Kes, Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course</i>
Type of teaching	<i>Student-centered Learning : project-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Formulating new ideas for the application of management in the pharmacy and social pharmacy;</i> <i>2. Applying logical, critical, systematic, and innovative thinking by utilizing information technology to obtain solutions according to areas of expertise with integrity embodied in scientific documents;</i>
Content	<i>This course will introduce students to established methodologies for creating evidence syntheses such as systematic reviews, scoping reviews, and meta analysis with emphasis on finding and managing information. This course combines student-centered classroom sessions with project work to achieve the final course deliverable -a systematic review manuscript. Students will learn the steps required to conduct a systematic review and will spend the course developing the framework for a systematic review or similar evidence synthesis, based on a topic of their choosing. They will receive feedback at each stage of the protocol design process and practice using tools that support systematic review processes.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>



Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, Board, LMS</i>
Reading list	(1) Bello A, Wiebe N, Garg A, Tonelli M. Evidence-based decision-making: systematic reviews and meta-analysis. <i>Methods Mol Biol (Clifton, NJ)</i>. 2015; 1281:397–416. (2). Khan KS, Kunz R, Kleijnen J, Antes G. Five steps to conducting a systematic review. <i>J R Soc Med</i>. 2003;96(3):118–21. (3) Shea BJ, Reeves BC, Wells G, Thuku M, Hamel C, Moran J, ... Henry DA. AMSTAR: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. <i>BMJ</i>. 2017;358:j4008 (4) RevMan The Cochrane Collaboration. J Copenhagen TNCCTCC. Review Manager (RevMan). 5.0. 2008



Modul name	Big Data in Healthcare
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211221</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Dr. apt. Susi Ari Kristina, M. Kes</i>
Lecturer	<i>Dr. apt. Susi Ari Kristina, M. Kes dr. Lutfan Lauzardi, M. Kes., PhD Dr. apt. Dwi Endarti, M.Sc. Dr. apt. Anna Wahyuni W, M.PH</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course</i>
Type of teaching	<i>Student-Centered Learning : Case-based and project-based learning</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Solve pharmaceutical/health problems by utilizing pharmaceutical management and social pharmacy knowledge through an interdisciplinary/multidisciplinary approach</i> <i>2. Able to develop work networks, adapt, be creative, contribute, supervise, evaluate and make decisions in order to demonstrate independent and group performance to apply science to social life</i>



Content	<i>Topics that will be studied in this course are overview and definition of Big Data, Big Data analytics for health systems, potential benefits of using Big Data for health services in Indonesia, Big Data in public health, Big data in services to patients and the pharmaceutical sector, and legal and ethical aspects of using big data for health services. Examples of research and publications using secondary data will also be discussed in this course.</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	1. LaValle S, Lesser E, Shockley R, Hopkins MS, Kruschwitz N. <i>Big data, analytics and the path from insights to value. MIT Sloan Manage Rev</i> (2011) 52(2):21. 2. Belle A, Thiagarajan R, Soroushmehr SM, Navidi F, Beard DA, Najarian K. <i>Big data analytics in healthcare. Biomed Res Int</i> (2015) 2015:370194. doi:10.1155/2015/370194 3. Barrett MA, Humblet O, Hiatt RA, Adler NE. <i>Big data and disease prevention: from quantified self to quantified communities. Big data</i> (2013) 1(3):168–75. doi:10.1089/big.2013.0027 4. Hood L, Lovejoy JC, Price ND. <i>Integrating big data and actionable health coaching to optimize wellness. BMC Med</i> (2015) 13(1):4. doi:10.1186/s12916-014-0238-7 5. Burke-Garcia A, Scally G. <i>Trending now: future directions in digital media for the public health sector. J Public Health</i> (2014) 36(4):527–34. doi:10.1093/pubmed/fdt125



Modul name	Global Regulatory Affair
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211222</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Susi Ari Kristina, Prof. Dr., M.Kes, Apt</i>
Lecturer	<i>Susi Ari Kristina, Prof. Dr., M.Kes, Apt Sri Suryawati, Prof. Dr. Apt Dwi Endarti, Dr., M.Si., Apt</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Type of teaching	<i>Student-centered Learning: Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	<i>-</i>
Module objectives/intended learning outcomes	<i>1. Solve pharmaceutical/health problems by utilizing pharmaceutical management and supervision sciences through interdisciplinary/multidisciplinary approaches.</i> <i>2. Able to develop networks, adapt, innovate, contribute, supervise, evaluate, and make decisions to demonstrate individual and group performance in applying knowledge to community life.</i>



Content	<i>This course involves adhering to regulations and guidelines established by governmental bodies like the Food and Drug Administration (FDA) in the US, the European Medicines Agency (EMA) in Europe, and similar authorities globally. Product registration and approval encompass managing the registration process, submitting regulatory applications, and obtaining approvals to market products internationally. Quality assurance and Good Manufacturing Practices (GMP) ensure that products meet quality standards and adhere to GMP requirements mandated by regulatory agencies. Compliance with labeling, packaging, and consumer information regulations is crucial. Emerging technologies like biotechnology and artificial intelligence present regulatory challenges that require attention. Pharmacovigilance involves monitoring product safety, analyzing adverse event reports, and ensuring compliance with related regulations. Risk management evaluates and addresses risks associated with regulatory compliance, product quality, and safety concerns.</i>
Study and examination requirements	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam, presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>



Reading list	1. Herrero-Martinez E, Hussain N, Roux NL, MacDonald J, Mayer M, Palacios R, et al. Dynamic regulatory assessment: evolving the European regulatory framework for the benefit of patients and public health-an EFPIA view. <i>Clin Ther.</i> (2022) 44:132–8. 10.1016/j.clinthera.2021.11.001 2. National Academies of Sciences, Engineering, and Medicine. <i>Regulating Medicines in a Globalized World: The Need for Increased Reliance Among Regulators.</i> Washington, DC: The National Academies Press; (2020) 3. Cauchon N, Oghamian S, Hassanpour S, Abernathy M. Innovation in chemistry, manufacturing, and controls-a regulatory perspective from industry. <i>J Pharm Sci.</i> (2019) 108:2207–37. 10.1016/j.xphs.2019.02.007 4. National Academies of Sciences, Engineering, and Medicine. <i>Innovations in Pharmaceutical Manufacturing on the Horizon: Technical Challenges, Regulatory Issues, and Recommendations.</i> Washington, DC: The National Academies Press; (2021). 10.17226/26009 5. Macdonald J, Isom D, Evans D, Page K. Digital innovation in medicinal product regulatory submission, review, and approvals to create a dynamic regulatory ecosystem-are we ready for a revolution? <i>Front Med (Lausanne).</i> (2021) 8:660808. 10.3389/fmed.2021.660808 6. Van Belkum S, Brun N, Cleve S, McGovern P, Lumpkin M, Schaeffer P, et al. Artificial intelligence in clinical development and regulatory affairs – preparing for the future. <i>Regul Rapp.</i> (2022) 15:17–21
--------------	---



Modul name	Human Resources Management
Module level	<i>Master in Pharmacy Management</i>
Code	<i>FAMF211223</i>
Semester(s) in which the module is taught	<i>II</i>
Person responsible for the module	<i>Prof. Dr. Satibi, M.Si., Apt</i>
Lecturer	<i>Prof. Dr. Satibi, M.Si., Apt Prof. dr. Ali Ghufroon Mukti, M.Sc., Ph.D apt. Dr. Bondan Ardiningtyas, M.Sc</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Elective course</i>
Type of teaching	<i>Student Centered Learning : Case-based learning method</i>
Workload (incl. contact hours, self-study hours)	<i>100 minutes of in-class lectures 120 minutes of structured assignment activities 120 minutes of independent activities In total 340 minutes/week In 16 weeks = 5440 minutes = 90.67 hours 1 ECTS = 28 hours</i>
Credit points	<i>2 CSU = 3.2 ECTS</i>
Requirements according to the examination regulations	<i>Min. attendance 75%</i>
Recommended prerequisites	-
Module objectives/intended learning outcomes	<i>1. Master the theory and application of pharmaceutical management and social pharmacy science in depth to develop research and apply research results for scientific development;</i> <i>2. Criticize and provide input for improvements from the perspective of pharmaceutical management and social pharmacy science towards policies for resolving pharmaceutical/health problems;</i>



Content	<i>The Human Resource Management (MSDM) course contains the following materials: The Importance of HRM; HRM Shaping Trends; HR Manager; HRM Strategy and Analysis (Strategic Management Process, Strategic HRM, and HR Metrics); Job Analysis and Design (Basic of Job Analysis, Job Analysis Information Gathering Methods); Writing Job Descriptions; Writing Job Specifications); HR Planning and Recruitment; HR Selection; HR Training and Development; Management and Performance Appraisal; Career Management; Compensation System Design; Human Rights Ethics and Discipline; Labor Relations; Occupational Health and Safety; HRM International (Adapting HR Activities to Differences Between Countries, Staffing Global Organizations, Training and Retaining Employees Overseas, and Practice Global HR Systems).</i>
Study and examination requirement	<i>25% Midterm Exam, 25% Final Exam, 30% Assignments, 20% Active Participation</i>
Examination forms	<i>Final and Mid-exam (Writing exams), presentation, task</i>
Media employed	<i>Slide, Face to face instruction, LMS</i>
Reading list	<i>Rakesh, D, Muntaqheem, M.G., Kumara, M,N.V., Abhilsh, P 2021, Human Resources management, Archers & Elevators Publishing HouseBangalore – 560 090 India.</i> <i>Blštáková,J., Palenčárová, J., 2021, Human Resource Management in Healthcare: Current Problems of the Corporate Sector, Bratislava, Slovakia</i>