

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: E-business in Pharmacy			
Teachers: Tasic M. Ljiljana, Tadic B. Ivana			
Course status: elective			
Semester: II	Year of studies: I		
ECTS points: 5	Course code: CФММИ1		
Requirements: no			
Course aims: Introduction to the benefits of e-business in the pharmaceutical industry and society. Protection of electronic data of patients/consumers from potential abuse in internet environment. Regulation in electronic commerce in pharmacy.			
Course outcomes: E-business in modern society. Knowledge about economic, social, legal and marketing framework for e-commerce in the pharmaceutical care and health care.			
Course contents: <i>Lectures</i> Introduction to e-business. Conducting business on the internet (buying, selling, business organization in the network environment, organization of business communications to all stakeholders, customer care). Combined use of information technology and telecommunications. Economic, legal and social aspects pharmaceutical e-business and the regulatory framework. Internet platform for commercial activities and promotion of the health life industry. Data integrity and consumer protection. Methods for efficient operations and savings costs. Codes which regulate business, which is achieved through the Internet. E - business in pharmacy practice and e-pharmacy. Ethical aspects of e - pharmacy and regulatory framework. <i>Practical classes</i> Practical classes includes learning, analyzing and discussing practical examples of theoretical lessons. Analysis of promotional activities on the electronic media of manufacturers of medical products. Web environment, e -platform for work activities as a source of competitive advantage. Analysis of regulation e - sales of medical products/services. Quality Management of online Information . Internet environment, an electronic platform for the work processes as a source of competitive advantage. Analysis of regulation about internet sales of medical products/services.			
Recommended literature: 1. Tasić Lj. Farmaceutski menadžment i marketing. Beograd: Placebo; 2007. 2. Nagles K, Da Cruz P, Muller MC. Virtuel Companies Becoming a Reality in Healthcare. Drugs; 2001.			
The total of active learning classes			
Lectures: 30	Practical classes: 30		
Research work: 15	Other forms of teaching: 15		
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discustion, home work, on-line forum. Evaluation: written exam- final test and oral pratical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Pharmaceutical marketing			
Teachers: Tasic M. Ljiljana, Dusanka M. Krajinovic			
Course status: mandatory			
Semester: I		Year of studies: I	
ECTS points: 10		Course code: CΦMMO3	
Requirements: no			
Course aims: Introduction to the philosophy and methodology of market research of pharmaceuticals, health and pharmaceutical services. Introduction to the regulatory and ethical framework of pharmaceutical marketing practices and the concept of social marketing. introduction of market and the methodology for health promotion and disease prevention. Basics of pharmacoepidemiology and pharmacovigilance.			
Course outcomes: Developing the techniques of segmentation and market research. Critical analysis of marketing, post-marketing, pharmaco-economic and similar studies. Developing of knowledge and skills in the design, implementation and evaluation of promotional campaigns (approaches: producers, users / consumers, and society). Ability to analyze regulatory and ethical standards, and launching the products toward the professionals and the general public.			
Course contents: <i>Lectures</i> General principles of pharmaceutical marketing (manufacturers, patients and society aspects); marketing mix , models, methods and techniques of marketing. Marketing and its role. General concepts of marketing. Market segmentation. Strategy and tactics. Analysis of client needs (prescribers, financiers, users - patients). Market research of drugs versus analytical marketing. Principles in pharmacoepidemiology and pharmacovigilance. Postmarketing monitoring of medicines. Public health marketing (social marketing). General concepts of social marketing. Components and techniques of social marketing. Regulation and ethics in advertising and marketing of pharmaceutical products and services. <i>Practical classes</i> As part of the practical classes there you will examine, analyze and discuss practical examples of theoretical lessons. Creating a mission, vision, strategy and tactics of the organization. Segmentation of the market, analysis of target markets, analysis of customer needs. Market research using the methods: Boston Consulting Group matrix, SWOT analysis, benchmarking and portfolio analysis. Preparation the plans for a promotional campaign (products and services). Critical analysis of pharmacoepidemiological studies. Critical analysis of marketing activities in terms of ethical principles, regulatory framework and users protection.			
Recommended literature: 1. Kotler P. Маркетинг менаџмент. Београд: Дата статус; 2006. 2. Tasic Lj. Farmaceutski menadzment i marketing. Beograd: Placebo; 2007. 3. Spilker B. Multinational Pharmaceutical Companies: principles and practices. 2nd ed. Boston: Ravens press; 1994. 4. Dogramatzis D. Pharmaceutical Marketing a Practical Guide. Denver: Interpharm Press; 2002. 5. Beauchamp T, Bowie N, Arnold D. Ethical theory and business. 8th ed. New Jersey: Prentice Hall; 2007.			
The total of active learning classes			
Lectures: 45		Practical classes: 30	
Research work: 30		Other forms of teaching: 30	
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discustion, home work, on-line forum. Evaluation: written exam- final test and oral pratical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points

Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			


University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Pharmaceutical management 1			
Teachers: Ljiljana M. Tasić, Valentina D. Marinković			
Course status: mandatory			
Semester: I	Year of studies: I		
ECTS points: 10	Course code: CΦMMO1		
Requirements: no			
Course aims: Introduction of general principles of pharmaceutical management. Introduction of quality management systems (QMS).			
Course outcomes: Efficient and effective organisation of pharmaceutical activities for successful company in global- local environment. Preparation of strategies and policies for strategic positioning, business/ development plan.			
Course contents: <i>Lectures</i> Lectures: General concept of management; management of health system. Definition of management. Strategic planning. SWOT analysis (strength, weakness, opportunity, threat), and PEST analysis (political, economy, social, technology). Concept of quality management in pharmacy. Concept of Total quality management and business excellence. Introduction of basic management tools and implementation in real business systems. Benchmarking. Balanced score cards. Key performance indicators - definition, identification and monitoring. Pharmacopolitics. Pharmaceutical and pharmacy management. Supply chain management. Selection, procurement, distribution and use of pharmaceuticals. System of bid and tender of medicines and medical devices. Mission, vision and leadership in pharmacy; globalisation and outsourcing in pharma business. <i>Practical classes</i> Study, analysis and discussion of practical examples by mock-up of pharma business activities. Company structure analysis: pharmacy, wholesale, industry. Strategy, mission, vision in pharma companies. Structure, processes, outcomes of business systems and subsystems in pharma organisations: pharmacy, wholesale, manufactory.			
Recommended literature: 1. Tasić Lj. Farmaceutski menadžment i marketing. Beograd: Placebo; 2007. 2. Spilker B, Multinational Pharmaceutical Companies: principles and practices. 2nd ed. Boston: Ravens press; 1994. 3. WHO Managing Drug Supply. 2nd ed. sterling:Kumarian Press; 1997. 4. Drucker PF. Management: Tasks, Responsibilities, Practices. New York: Harper & Row; 1985. 5. Tasić Lj, Marinković V. Kvalitet in pharmacy- from theory and practice. Beograd: Farmaceutski fakultet, 2012.			
The total of active learning classes			
Lectures: 45	Practical classes: 30		
Research work: 30	Other forms of teaching: 45		
Teaching methods: Lectures (ex cathedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Pharmaceutical management 2			
Teachers: Tasic M. Ljiljana, Marinkovic D. Valentina			
Course status: mandatory			
Semester: I	Year of studies: I		
ECTS points: 5	Course code: CΦMMO2		
Requirements: no			
Course aims: Planning and organizing activities in the pharmaceutical and healthcare industry at macro, meso and micro level.			
Course outcomes: Knowing the basis for rational use of drugs and the importance of pharmacoeconomics and pharmaceutical business.			
Course contents: <i>Lectures</i> The modern concept of pharmacy practice. Planning and funding of pharmaceutical business systems / operations. Cost analysis and rational use of medicines. Factors that influence the drug use. Fundamentals of financial management and sources of funding. Fundamentals of Human Resource Management. Personal characteristics of managers. Leadership. Teams - forming teams and roles of team members in health care and the economy (pharmacies, hospitals, wholesalers, manufacturers). Risk management and decision making in pharmaceutical and health systems. Management of the bussines continuity and Sustainable Development. Crisis management - behavior in critical situations. Safety management - theft, burglary, corruption. The concept and standards of social responsibility. The use of information technology as a support system in the modern pharmaceutical eneroment. Project management to support the implementation of the business plan. <i>Practical classes</i> During the practical courses students will study, analyze, discuss the practical examples and simulate the situation in pharmaceutical organizations. Methodology for calculating the required amount of medication. Desibg and preparation of the business plan and analysis of all of its contain and units: business analysis, environmental organizations, the financial plan, the process of procurement, feasibility and sustainability of the created plan.			
Recommended literature: 1. Tasic Lj. Farmaceutski manedžment i marketing. Beograd: Placebo;2007. 2. Spilker B. Multinational Pharmaceutical Companies: principles and practices. 2nd ed. Boston: Ravens press; 1994. 3. WHO. Managing Drug Supply. 2nd Ed. Sterling: Kumarian Press; 1997. 4. Drucker PF. Management: Tasks, Responsibilities, Practices. New York: Harper & Row; 1985. 5. Tasic Lj. ;Marinkovic V. Kvalitet u farmaciji - od teorije do prakse. Beograd: Farmaceutski fakultet; 2012.			
The total of active learning classes			
Lectures: 30	Practical classes: 30		
Research work: 30	Other forms of teaching: 15		
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discustion, home work, on-line forum. Evaluation: written exam- final test and oral pratical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		


Other activities		
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University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Information systems and technology in pharmacy			
Teachers: Ljiljana M. Tasić, Tadic B. Ivana			
Course status: mandatory			
Semester: II	Year of studies: I		
ECTS points: 5	Course code: CΦMMO4		
Requirements: no			
Course aims: Introduction to information systems in the pharmaceutical business. Introduction to standards in the pharmaceutical and health informatics. The use of databases and internet/intranet network in the pharmaceutical business.			
Course outcomes: The use of pharmaceutical and healthcare information systems. Knowledge and understanding of information technology and the potential for the development of the pharmaceutical business. Evaluation of information in business, especially from the pharmaceutical web based company.			
Course contents: <i>Lectures</i> Information systems and technology (aspect from manufacturers, patients, and society). Information systems in pharmacy (health care information systems, pharmaceuticals information systems, medicines, medical devices, classification, code lists, databases coding) - design, architecture and structure. Business process re-engineering – change into a competitive pharmaceutical organization. Methods and software for the pharmaceutical and health information system. Databases (general concepts, logistics framework, routers transfer data), analysis and processing. Internet-intranet in the pharmaceutical business. Standards and regulations in the pharmaceutical informatics. <i>Practical classes</i> Information systems and technology (aspect from manufacturers, patients, and society). Information systems in pharmacy (health care information systems, pharmaceuticals information systems, medicines, medical devices, classification, code lists, databases coding) - design, architecture and structure. Business process re-engineering – change into a competitive pharmaceutical organization. Methods and software for the pharmaceutical and health information system. Databases (general concepts, logistics framework, routers transfer data), analysis and processing. Internet-intranet in the pharmaceutical business. Standards and regulations in the pharmaceutical informatics.			
Recommended literature: 1. Tasić Lj. Farmaceutski menadžment i marketing. Beograd: Placebo; 2007. 2. Millares M. Applied Therapeutics - Applied Drug Information: Strategies for Information Management. Michigan: Applied Therapeutics; 1998. 3. Končar J. Elektronska trgovina. 2 izdanje. Subotica: Ekonomski fakultet Subotica; 2008.			
The total of active learning classes			
Lectures: 30	Practical classes: 30		
Research work: 30	Other forms of teaching: 15		
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discustion, home work, on-line forum. Evaluation: written exam- final test and oral pratical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	

Seminars	10	
Other activities		


University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Innovative Business in Pharmacy			
Teachers: Ljiljana M. Tasić, Valentina D. Marinković			
Course status: elective			
Semester: II		Year of studies: I	
ECTS points: 5		Course code: СФММИЗ	
Requirements: no			
Course aims: Introduction of development technology of new medicine product and pharmacy service. Legislation framework of drug development and knowledge and technology transfer. Specificity and challenges in pharma business development in global and local environment. Acquiring of concept of small and medium enterprise in pharmacy			
Course outcomes: Management of new products and new pharmacy services. Understanding of project management and risk management in pharma business. Capability of intellectual property analysis and launch of innovative activities in free and limited market .			
Course contents: <i>Lectures</i> Research and development in pharmaceutical industry . New product introduction procedure and patent protection. Data exclusivity in Serbia, EU, USA. Development of generic medicine. Analysis of competitors . Role of representative offices in pharma business expansion. Innovation and entrepreneurship in pharma business. Project management- introduction of ISO 10006 principles. Knowledge management and technology transfer. Globalisation influence on rationalisation of pharma business. Risk management in new pharma project. Risk management standardisation (ISO 31000). Process of identification, assessment, analysis, control and mitigation of risks in different pharma environment. <i>Practical classes</i> Study, analysis and discussion of practical examples about pharma innovations. Analysis of development model of new drugs. Planning of development plan of new pharmacy service. Analysis of innovation by selecting criteria; Usage of risk management tools. Business simulations about business extension (pharmacy, wholesale, manufacturing). Analysis of outsourced organisation.			
Recommended literature: 1. Harpum P, Portfolio, program and project management in pharmaceutical and biotechnology industries. New Jersey; John Wiley & Sons, 2011. 2. Tasić Lj. Farmaceutski menadžment i marketing. Beograd: Placebo; 2007. 3. Lee TH, Shiba S, Wood R. Integrated management systems- A Practical Approach to transforming organisations. New York: John Wiley & Sons Inc 1999. 4. Hedley R. Supply chain management in the drug industry- Delivery Patient Value for Pharmaceuticals and Biologics. New Jersey: John Wiley & Sons Inc 2011. 5. Ilić-Stojanović S., Jovanović S., Đorđević S, Tehnološki aspekt zaštite intelektualne svojine za farmaceutske proizvode i postupke. Grafolik: Tehnološki fakultet Leskovac 2005.			
The total of active learning classes			
Lectures: 30		Practical classes: 30	
Research work: 15		Other forms of teaching: 15	
Teaching methods: Lectures (ex cathedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50

Colloquia		Oral	
Seminars	10		
Other activities			


University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical Management and Marketing			
Course title: Competencies and Human Resource Management in Pharmacy			
Teachers: Dušanka M. Krajnović, Valentina D. Marinković			
Course status: elective			
Semester: II		Year of studies: I	
ECTS points: 5		Course code: CФММИ5	
Requirements: no			
Course aims: Introduction of principles and techniques about Human resource management (HRM) in pharmaceutical organisations and pharmacy environment. Introduction of HRM processes. Definition of competencies and performances of pharmacist in different business environment.			
Course outcomes: Acquiring of basic methods, tools and techniques in HRM processes. Candidates will be trained to define, review, evaluate and improve the competencies and performances of pharmacist in different pharma business environment.			
Course contents: <i>Lectures</i> Human resources- definition and importance. Human resources processes in modern pharma business environment. Using of psychological tests in human resources evaluation. Resource optimisation as a consequence of globalisation in pharmaceutical supply chain. Delegation and empowerment. Process and principles of feed-back. Conflict solving, rewards and punishments. Strike-legal framework in health institution. Labor contract suspension. Labor legislation- Labor law, labor contract. Motivation. Time management. Competences of pharmacist. Required skills and characteristics of pharmacist. Key performance indicators and employee assessment. Planning, realisation and evaluation of training. Salary calculation. <i>Practical classes</i> Introduction of processes, roles and responsibilities in human resources management, using real examples in pharmaceutical and healthcare systems. Self assessment of manager's profile and forming of successful teams. Simulation of conflict situation- conflict solving; giving the feed-back.			
Recommended literature: 1. Petkovic M, Janičević N, Bogičević Milikić B. Organizacija, dizajn, ponašanje, ljudski resursi, promene. Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta; 2006.			
The total of active learning classes			
Lectures: 30		Practical classes: 30	
Research work: 15		Other forms of teaching: 15	
Teaching methods: Lectures (ex cathedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical Management and Marketing			
Course title: Communication in pharmacy			
Teachers: Ljiljana M. Tasic, Dušanka M. Krajnović, Vojin Rakić			
Course status: elective			
Semester: II		Year of studies: 1	
ECTS points: 5		Course code: CФММИ2	
Requirements: no			
Course aims: Importance of communication with patient/citizen, health employees and business partners. Introduction to styles of communication and handling information. Significant and concept of public relations.			
Course outcomes: Enablement for effective communication with citizen/ patients and health employees (developed verbal and non verbal skills of communication). Understanding corporative culture, social responsibility and quality of life, related to health.			
Course contents: <i>Lectures</i> The concept and significance of communication in pharmaceutical business (the aspect of the manufacturer, the patient and the society). Types of communication (verbal, non verbal and written communication) and business culture (ethical, cultural, social aspects and pharmacy culture). Quality management of communication (standards of good communication). Global business environment (east and west culture). Health related quality of life (general and specific knowledge and skills of communication). Pharmaceutical culture (integrated communication, communication in virtual, public and health settings). Specific processes communication in relation to the target group of patients. <i>Practical classes</i> Examples of theoretical units are analyzed and discussed in practical training. Practical examples of different forms, styles, verbal and written communication. Designing plan and program of marketing communication (new medicine; the new image of the public pharmacy). Analysis of practical examples of communication. Preparations for communication with patients and health employees (specificity). Consideration of elements of written communication. Example of written communication and analysis. Use of tools for researching attitudes, habits, and behaviors of patients. Simulation of a press conference.			
Recommended literature: 1. Tasić Lj, Krajnović D, Jocić D, Jović S. Communication in Pharmaceutical Practice. Belgrade: Faculty of Pharmacy University of Belgrade; 2011. 2. Winfield AJ, Richards RME. Pharmaceutical Practice. Michigan: Churchill Livingstone; 1998. 3. Tasić Lj. Pharmaceutical Management and Marketing. Belgrade: Placebo; 2007. 4. Beardsley SR, Kimberlin LC, Tindall NW. Communication Skills in Pharmacy Practice. 5th ed. Baltimore. Lippincott Williams & Wilkins; 2008.			
The total of active learning classes			
Lectures: 30		Practical classes: 30	
Research work: 15		Other forms of teaching: 15	
Teaching methods: Lectures (ex cathedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	

Seminars	10	
Other activities		

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Selected Chapters of Pharmacoeconomics			
Teachers: Guenka Petrova, Ljiljana Tasić, Dragana Lakić			
Course status: elective			
Semester: II	Year of studies: I		
ECTS points: 5	Course code: CФММИ6		
Requirements: no			
Course aims: The acquisition of knowledge in the field of pharmacoeconomics. Methods of pharmacoeconomic analyses.			
Course outcomes: Knowledge and application of knowledge in the field of pharmacoeconomics. Knowledge and application of pharmacoeconomic methods.			
Course contents: <i>Lectures</i> Introduction to pharmacoeconomics. Outcomes and costs. Calculating the cost of treatment. Types of costs (direct and indirect). Subcategories of costs (total, average, marginal, incremental). Assessment of costs. Discounting. Perspective in calculating costs. Pharmacoeconomic methods: cost-minimization analysis, cost-effectiveness analysis, cost-benefit analysis and cost-utility analysis. Methods of assessment of patient preference and utility (method time balance, visual analog scale, standard gamble). Health related quality of life. <i>Practical classes</i> Calculating the cost of treatment. Practical work - application of cost-minimization analysis. Practical work - cost-effectiveness analysis. Practical work - cost-benefit analysis. Practical work - cost-utility analysis. The method for assessing the patient preferences. Determination of the quality of life. Types of questionnaires to measure preferences. Questionnaires to measure health related quality of life. The coding/evaluation preferences. Analysis of the obtained results.			
Recommended literature: 1. Drummond MF, O'Brien B, Stoddart GL, Torrance GW. Methods for the economic evaluation of health care programmes. 2nd Ed. New York: Oxford University Press; 1997. 2. Bootman JL, Townsend RJ, McGhan WF. Principles of Pharmacoeconomics. 3rd Ed. Cincinnati Harvey Whitney Books Company; 2005. 3. Novaković T, Tešić D, Stefanović D, Medić G, Sovtić D. Vodič za farmakoekonomske evaluacije u Srbiji. Beograd: SFUS; 2011. 4. Berger ML, Bingefors K, Hedblom EC, Pashos CL, Torrance GW, Smith MD. Troškovi, kvalitet i ishodi zdravstvene zaštite – ISPOR knjiga termina. ISPOR 2003. Prevod na srpski. Beograd: ISPOR Serbian chapter; 2012.			
The total of active learning classes			
Lectures: 30	Practical classes: 30		
Research work: 15	Other forms of teaching: 15		
Teaching methods: Lectures (ex cathedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		

Other activities		
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University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Selected Chapters of Pharmacoepidemiology			
Teachers: Ljiljana Tasić, Dragana Lakić			
Course status: elective			
Semester: II		Year of studies: I	
ECTS points: 5		Course code: СФММИ7	
Requirements: no			
Course aims: The acquisition of knowledge in the field of pharmacoepidemiology. Training for critical evaluation of information from the field pharmacoepidemiology. Methods of pharmacoepidemiology.			
Course outcomes: Knowledge and application of knowledge in the field of pharmacoepidemiology. Ability to critically evaluate information in the field of pharmacoepidemiology. Knowledge and application of pharmacoepidemiological methods			
Course contents: <i>Lectures</i> Pharmacoepidemiology - definition of drug related problems. Types of epidemiology research. Research methods (descriptive, analytical, experimental). Health outcomes. The incidence and prevalence - difference. The correlation between the outcome (causality in epidemiology). Term: ratio, proportion, rate, general, specific and standardized rates. Types of epidemiological studies. Types of descriptive studies (environmental studies, case reports and case series). Analytical studies (case - control studies, cohort studies and cross-sectional studies). Errors and types of errors. Demographic and socio - economic characteristics of patients / research participants. Indicators of disease. Sources of information about their diseases. Mortality indicator. Drug related problem - method of data collection. Calculating the risk. Evaluation of drug usage. <i>Practical classes</i> Inclusion in pharmacoepidemiological studies. Creating a PSUR. Calculating the risk of adverse drug reactions. Information about side effects. Determining the type of study. Data analysis. Critical analysis of published epidemiological studies: an analysis of the study methodology, analysis of results. Design in epidemiological studies. Analysis of the drug use with the DDD.			
Recommended literature: 1. Strom BL. Pharmacoepidemiology, 4th Ed. Chichester: John Wiley & Sons; 2005. 2. Hartzema AG, Porta M, Tilson HH. Pharmacoepidemiology. Cincinnati: Harvey Whitney; 1998 3. Гледовић З, Јанковић С, Јаребински М, Марковић-Денић Љ, Пекмезовић Т, Шипетић-Грујичић С, Влајинац Х. У: Влајинац Х, Јаребински М (уредници). Епидемиологија. Београд: Медицински факултет Универзитета у Београду; 2006.			
The total of active learning classes			
Lectures: 30		Practical classes: 30	
Research work: 15		Other forms of teaching: 15	
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discustion, home work, on-line forum. Evaluation: written exam- final test and oral pratical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			


University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Negotiation and decision making in pharmacy			
Teachers: Ljiljana M. Tasić, Valentina D. Marinković			
Course status: elective			
Semester: II	Year of studies: I		
ECTS points: 5	Course code: CФММИ4		
Requirements: no			
Course aims: Introduction and acquiring of methods and techniques for effective negotiation in different business environment. Introduction of importance of decisions made in DM in healthcare and pharmaceutical systems. Introduction of decision making process in Health Technology assessment. Acquiring team work capability in decision making process. Identification of repercussions about decisions made on health and safety. Introduction of flow chart diagrams for decision in healthcare system, based on practical examples.			
Course outcomes: Implementation of basic methods, tools and techniques in process of negotiation, contracting and decision making; introduction of decision making models in strategic, tactical and operating management levels; importance of decision on health and pharmaceutical sustainability.			
Course contents: <i>Lectures</i> Processes, type and ways of negotiation in modern pharmaceutical environment. Planning and basic elements in negotiation process (licence agreements, representative agreement, security agreement, supply agreement, commercial agreement, Technical agreement, quality agreement). Decision making process. Teamwork in decision making process- share decision making. importance of decisions made in healthcare and pharmaceutical system. Social, psychology and economic aspects in DM process. Evaluation of decision made. <i>Practical classes</i> Study, analysis and discussion of practical examples in negotiation, contracting and decision making- role and responsibilities in teamwork; real healthcare and pharmaceutical system in Serbia. Preparation and review of different agreements. Comparison of different DM models; share decision making in relation on pharmacist - patient.			
Recommended literature: 1. Tasić Lj, Marinković V. Kvalitet u farmaciji -od teorije do prakse. Beograd: Farmaceutski fakultet, 2012. 2. Tasić Lj. Farmaceutski menadžment i marketing. Beograd: Placebo; 2007. 3. Čupić M, Tumšala VMP, Suknović M, Odlučivanje- formalni pristup, Beograd, FON; 2001.			
The total of active learning classes			
Lectures: 30	Practical classes: 30		
Research work: 15	Other forms of teaching: 15		
Teaching methods: Lectures (ex cathedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical Management and Marketing			
Course title: Social Marketing and New Public Health			
Teachers: Ljiljana M. Tasić, Dušanka M. Krajinović			
Course status: elective			
Semester: II		Year of studies: I	
ECTS points: 5		Course code: СФММИ8	
Requirements: no			
Course aims: Introduction to basic principles, philosophy and politics of public health and the concept of the new public health. Mastering the methods of public-health research and design, monitoring and evaluation of public health programs and interventions. Introduction to the basic techniques of social marketing and ethical dilemmas that may appear.			
Course outcomes: The efficient design of the program of public - health campaigns (for example. to mark certain dates in the calendar of health, etc.); and management skills program implementation and evaluation of the Action Plan preventive health activities for a specific population / group.			
Course contents: <i>Lectures</i> Philosophy and public health policy and the new public health. Evidence-based health care and public health. Health care according to levels of prevention and for specific population groups (women and children, actively working people, the elderly, the poor, the refugees, the Roma, people living with disabilities). Social impacts, behavior and health (culture, family, peers), social concept of health and illness, beliefs, attitudes, knowledge, behavior (relationship skills and behaviors), risky behavior at individual, group and population level. Communications and media and their role in public health policy. Health promotion and health education. Environments for health. Social marketing. Methods of public health research (qualitative and quantitative) and design, implementation, monitoring and evaluation of public health programs. Ethics in health promotion and social marketing. <i>Practical classes</i> Methods of exercises involving active analysis of case studies, participation in the creation and design of pilot projects and programs in the field of public health, with special reference to the contribution of pharmaceutical health system in designing and implementing health-education intervention and promotion programs, health and social marketing purposes.			
Recommended literature: 1. WHO Regional Conference on the New European policy for Health-Health 2020. Health 2020 policy framework and strategy. Malta 2012. 2. Tasic Lj, Paročić D, Bogavac-Stanojevic N, Ilic K, Jovic S, Kocic Pesic-V. Health promotion and disease prevention women in pharmacy practice. Belgrade: Faculty of Pharmacy University of Belgrade 2006. 3. Bradley P. Burls A. Ethics in Public and Community Health. New York: Routledge Taylor and Francis Group; 2000. 4. Bissell P, Traulsen J. Sociology and Pharmacy Practice. London: Pharmaceutical Press; 2005. 5. Coughlin Steven S, Soskolne Colin L, Goodman Kenneth W. Case Studies in Public Health Ethics. Washington: American Public Health Association; 1997.			
The total of active learning classes			
Lectures: 30		Practical classes: 15	
Research work: 15		Other forms of teaching: 15	
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discussion, home work, on-line forum. Evaluation: written exam- final test and oral practical exam.			
Grading system:			

Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	
Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Quality Management in Pharmacy			
Teachers: Ljiljana M. Tasić, Valentina D. Marinković			
Course status: mandatory			
Semester: II		Year of studies: I	
ECTS points: 10		Course code: CΦMMO5	
Requirements: no			
Course aims: Introduction of quality management systems (QMS) philosophy. Understanding of importance about standardised management systems (SMS) and good practices (GxP) in pharmacy; Education and training about Integrated management systems (IMS). Introduction of basic tools in QMS and key performance indicators (KPIs) understanding.			
Course outcomes: Implementation of QMS methods and tools and quality improvement in pharmaceutical operations/activities. KPI monitoring in pharmacy services and pharmaceutical manufactory. Mapping, monitoring and evaluation of quality KPIs.			
Course contents: <i>Lectures</i> QMS philosophy and quality system technology. Standardized quality management systems (SMS)-ISO 9001, ISO 22000, ISO 17025, ISO 13845 . Integrated management system about quality, ecology, health & safety. QMS in health industry - Donabedian philosophy. Certification and accreditation. Good manufacturing practice- Manufacturing License. Good Distribution practice- Distribution Licence. Comparative analysis of SMSs and GxP. Pharmaceutical Quality System- implementation of quality principles in all phases in medicines lifecycles. Facility, premises, equipment in pharma organisation. Key personnel- training system. Quality system documentation. Quality specifications. Calibration and maintenance (plans, contracts, deviations). Qualification and validation. Change control system. Deviation management- corrective and preventive actions. Continious improvement - tools and technics. Monitoring and evaluation of Pharmaceutical Quality system. <i>Practical classes</i> Study, analysis and discussion of practical examples in QMS. Comparative analysis of SMS, TQM, GxP and IT systems in pharma organisations examples. Consideration of quality indicators in pharmacy service. Indicators and monitoring of patient safety. Qualification and validation in pharma projects. Process maping. Performance evaluation in pharmaceutical companies (wholesale, manufactory).			
Recommended literature: 1. Tasić Lj, Marinković V. Kvalitet u farmaciji -od teorije do prakse. Beograd: Farmaceutski fakultet, 2012. 2. Tasić Lj. Farmaceutski menadžment i marketing. Beograd: Placebo; 2007. 3. Lee TH, Shiba S, Wood Rc. Integrated management systems- A Practical Approach to transforming organisations. New York: John Wiley & Sons Inc 1999. 4. Hedley R. Supply chain manahgement in the drug industry- Delivery Patient Value for Pharmaceuticals and Biologics. New Jersey: John Wiley & Sons Inc 2011. 5. Filipović J. Menadžment sistema kvaliteta. Beograd FON, 2008.			
The total of active learning classes			
Lectures: 45		Practical classes: 30	
Research work: 30		Other forms of teaching: 30	
Teaching methods: Lectures (ex catedra) practice: case studies, workshops, panel discustion, home work, on-line forum. Evaluation: written exam- final test and oral pratical exam.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	20	Practical	

Practical classes	20	Written	50
Colloquia		Oral	
Seminars	10		
Other activities			

University of Belgrade Faculty of Pharmacy	Specialized Academic Studies PHARMACEUTICAL MANAGEMENT AND MARKETING		
Study programme: Pharmaceutical management and marketing			
Course title: Final work			
Teachers:			
Course status:			
Semester: II		Year of studies: I	
ECTS points: 15		Course code: CΦMM3P	
Requirements: all modules according to plan and programm			
Course aims: Master thesis should include all knowledge acquired during the studies and present the practical application of knowledge in studies of work process - pharmaceutical management, pharmaceutical marketing, information technology in pharmacy, quality in pharmacy			
Course outcomes: The practical application of the knowledge in studies of working processes and making recommendations for the improvement of working practices in certain areas of pharmaceutical management and marketing.			
Course contents: <i>Lectures</i> As part of the final work is the students research in which he introduces the methodology of research in the field of pharmaceutical management and marketing. After research conducting student prepares a final paper in the form of specialist work that contains the following chapters: Introduction, Theoretical part, Experimental part, Results, Discussion, Conclusion and Review of the literature. After completing work student access to the public defense of thesis - oral specialist examination bellow of the commission. <i>Practical classes</i>			
Recommended literature:			
The total of active learning classes			
Lectures: 0		Practical classes: 0	
Research work: 0		Other forms of teaching: 0	
Teaching methods: Ex cathedra lectures, practical classes (case studies, workshops, panel discussions, homework assignments, on-line forum and training); Evaluation of Teaching: written-final test and practical exam-verbally.			
Grading system:			
Exam prerequisites	Points	Final exam	Points
Active participation in lectures	0	Practical	
Practical classes	0	Written	0
Colloquia		Oral	100
Seminars	0		
Other activities			