



**RULE BOOK  
ON GRADUATE STUDIES AT THE UNIVERSITY OF ZAGREB  
FACULTY OF PHARMACY AND BIOCHEMISTRY**

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On the basis of the Science and Higher Education Act (Official Gazette, Nos.123/03, 105/04, 174/04 and 46/07), of the Statute of the University of Zagreb, the Rule Book on Studying at Undergraduate and Graduate Studies at the University of Zagreb, and under Article 98, section 5 of the Statute of the Faculty of Pharmacy and Biochemistry (hereinafter: the Faculty), the University of Zagreb Faculty of Pharmacy and Biochemistry, brings the clarified text of the Rule Book on Studying at Graduate studies at the Faculty of Pharmacy and Biochemistry. The clarified text of the Rule Book on Studying at Graduate Studies at the Faculty of Pharmacy and Biochemistry contains the Rule Book on Studying at Graduate Studies at the University of Zagreb Faculty of Pharmacy and Biochemistry, of 22nd December 2011, Entry No.: 251-62-01-11-24 as well as changes and amendments to the Rule Book on Studying at Graduate Studies at the Faculty of Pharmacy and Biochemistry, of 21st May 2014, which contains the time of its entry into force.

## RULE BOOK ON STUDYING AT GRADUATE STUDIES AT THE FACULTY OF PHARMACY AND BIOCHEMISTRY

### I GENERAL PROVISIONS

#### Article 1 Introductory Provision

- 1 By this Rule Book the rules of studying at integrated undergraduate and graduate (hereinafter: integrated) studies of Pharmacy as well as Medical Biochemistry and Laboratory Medicine are more closely regulated.
- 2 Work in the academic community and at the Faculty is based on the principles of the Ethical Codex of the University of Zagreb.
- 3 Notions used in this Rule Book, which are of generic character, regardless of being used either in masculine or feminine gender, comprise both masculine and feminine gender in an equivalent way.

### II STUDY PROGRAMME

#### Article 2

- 1 The Faculty constitutes and executes two university graduate studies:
  - 1) Study of Pharmacy
  - 2) Study of Medical Biochemistry and Laboratory Medicine.
- 2 Upon completion the Study of Pharmacy, the academic title Master of Pharmacy is awarded (MSci.ph.).
- 3 The academic title Master of Medical Biochemistry and Laboratory Medicine (MSci.med.bi.) is awarded upon completion the study of Medical Biochemistry and Laboratory Medicine.
- 4 For each of the above mentioned integrated study, the Faculty applies and makes a programme which is approved by the Faculty Council and by the Senate of the University.

#### Article 3 Contents of the Study Programme

- 1 The application (elaborate) of the university integrated study programme contains the General part, the Programme, and the Conditions of the Study Performance.
- 2 The General Part contains:
  - the name of the study holder,
  - the name of the study programme,

- the study length,
- the professional or academic title and degree awarded upon completion of the studies,
- the study programme coherence and,
- the explanation of the need for the studies.

1 The Programme contains:

- the profile of the academic degree, goals and results of learning i.e., general and specific competences as well as skills and knowledge, and the study organization full working hours,
- conditions of enrolment in the study,
- compulsory and elective courses (modules), in particular the list of courses structured in accordance with European standards for a certain field (courses which constitute the study programme core, courses which cover the elementary and basic content, courses which a student chooses entirely freely and the ratio between these groups of courses, outlined contents of the courses and the number of active teaching hours, the credit value for each subject according to ECTS explanation, learning outcomes for each course as well as the admission competences necessary for a course enrolment, forms of teaching execution and the way of knowledge checking for each course, the literature list, the way of monitoring the teaching execution quality and success,
- rules and ways of assessment, a grade structure in each particular course,
- recommendation of the courses being proposed to a student from other university studies (study programmes),
- conditions of advancement throughout the studies,
- provisions on whether and under which conditions the student, who broke the studies, is allowed to continue studying,
- the way of completion the studies, and
- the way of monitoring the quality and success of the study programme executing (particularly the way of the student participation in evaluating the curriculum of each course and its execution).

4 A study on execution conditions contains:

- the place of executing the study programme (physically and virtually),
- the facilities and equipment,
- the space in the system for e-learning with all information about the study programme and education material,
- the personnel for executing the study programme (teachers and associates) and the analysis of the teacher workload,
- the studies expenses, and
- the optimal number of the enrolled students regarding the facilities, the equipment and the number of teachers.

#### Article 4

##### Procedure of Changes and Addition to the Study Programme

- 1 The Faculty can, with the Senate approval during the licence time, change the study programme, taking into account recommendations of the authorised body.
- 2 The procedure of changes and addition to the study programmes with licences is initiated by the Faculty.
- 3 The change and addition to the study programme of the integrated studies must be made and announced before issuing the application invitation for enrolment in the study.

4 All decisions on changes and additions to the study programme are stored in the University Archive in printed form, and the changes based on these decisions are recorded in the appropriate information system.

#### Article 5

##### Teaching Executing Plan

- 1 The study is conducted according to the teaching executing plan in accordance with the Science and Higher Education Act (hereinafter: the Act) and this Rule Book.
- 2 The teaching executing plan determines:
  - a) the teachers and associates to perform teaching according to the study programme,
  - b) the places of teaching execution (physically, virtually),
  - c) the start, the end and the timetable of teaching execution,
  - d) teaching forms (lectures, seminars, practice lessons, consultations, field work, knowledge checking, art lessons, art teaching production, e-learning, etc.),
  - e) the way of taking examinations and examination criteria,
  - f) the book list for the study and taking examinations,
  - g) a possibility of teaching execution in a foreign language,
  - h) the way of teaching execution (the classical way, a mixed form of e-learning, distance learning ), and
  - i) the other important facts for regular teaching execution.
- 3 The list of books for a particular subject and a particular exam must be adjusted to the study programme extent. The examination book list must be of such extent that it can be managed by an average student in the scheduled working time in accordance with Article 35, section 2 of this Rule Book.
- 4 The teaching executing plan is obligatorily made public on the notice board and the website of the Faculty before the commencement of teaching.
- 5 Exceptionally, due to relevant reasons, the teaching executing plan may also be changed during the academic year. The change is made public in the way described under section 4 of this article.

#### Article 6

##### Implementing Documents

The faculty is, due to recognition and understanding the educational programmes and the studying systems as well as the organization of teachers' and students' mobility, obliged to make the key documents of ECTS (European Credit Transfer System):

- Information Package,
- Grades Transcript,
- Additional Document.

#### Article 7

##### Information Package

- 1 The Information package is a catalogue of courses. Its goal is to make understanding and comparison of the educational programmes easier and to give complete information on the educational profiles, courses and the studying system. The information package is made in the Croatian language, and in its relevant parts in English, and it is published on the Faculty website and in printed form.
- 2 The Information package consists of three parts:
  - 2.1 Information on the institution and the terms and conditions of application to the Studies:

- a) the name and address,
- b) the lessons and exams calendar,
- c) the teachers and associates list,
- d) the general description of the institution (including the institution type and location) and its status,
- e) the study programmes list,
- f) the application/registration procedure,
- g) the main rules of the institution (especially for the recognition procedure),
- h) ECTS institutional coordinator.

## 2.2. Information on the study programmes:

### A) *General description:*

- a) the awarded qualification,
- b) the terms of application,
- c) educational and professional goals,
- d) possibilities of continuing further education,
- e) the study programme structure with ECTS credits,
- f) the final study examination if it exists,
- g) the examination and evaluation rules,
- h) ECTS coordinator.

### B) *Description of each particular course:*

- a) the course title,
- b) the course code,
- c) the course type,
- d) the course rate and its level,
- e) the studying year,
- f) the semester/trimester,
- g) the number of belonging ECTS credits,
- h) the teacher's name,
- i) the course goals expressed in the studying results,
- j) the prerequisites (which exams should be passed to be able to enrol in the course in question),
- k) the course contents,
- l) the recommended books,
- m) the teaching methods,
- n) the evaluating methods,
- o) the language of teaching.

## 2.3. General information for students:

### 2.3.1 *General information for students determined and issued by the Faculty:*

- a) sports facilities and sports equipment,
- b) practice,
- c) free activities,
- d) the Student Assembly and Student Associations,
- e) language learning courses,
- f) the premises and learning equipment,

- g) the data regarding the digital identity, information and communication technology usage,
- h) the psychological centre,
- i) the other.

*2.3.2 General information for the students which are determined and issued by the University:*

- a) the costs of living,
- b) the accommodation,
- c) the meals,
- d) the institutions for medical care,
- e) the possibilities for disabled students,
- f) the insurance,
- g) the financial help for students,
- h) the Student Service Centre,
- i) the facilities and learning equipment,
- j) practical information for the students in student exchange programmes,
- k) language learning courses,
- l) the facilities and equipment for sports and sport recreation,
- m) the other.

#### Article 8

##### Grades Transcript (ECTS credits)

The Grades Transcript is a public document, by which the Faculty provides detailed data on the programme carried out (expressed also by ECTS credits for each course) as well as the student's achieved results.

The student's success is expressed by a grade and ECTS credits system. The form is prescribed by the Senate. Upon request of the student the Faculty also issues the Grades Transcription in the English language.

#### Article 9

##### Additional Document about the Study

The Additional document about the study is a public document in the Croatian and English language, being enclosed to the Diploma or another document in order to provide a detailed insight in the level, in the content of the study as well as in the system and rules of studying at the Faculty. The content of the Additional document is prescribed by the competent ministry, and its form is prescribed by the Senate.

### III STUDENTS

#### Article 10

##### Student Status

- 1 In accordance with the Faculty Statute, the student status is obtained by enrolling in the Faculty.
- 2 The student rights and obligations are determined by the Statute of the University and the Faculty.

- 3 In accordance to the University Statute, a student can be regular or a guest student.
- 4 A regular student gains the right to health insurance, subsidized meals, accommodation in student residences, and other rights in accordance with special regulations of the authorized body and the Senate.

#### Article 11

##### Exceptionally Successful Students

- 1 The prerequisites for obtaining the status of the exceptionally successful student are determined by the Faculty, which thereby takes into consideration the length of studying, the number of acquired ECTS credits and the average grade.
- 2 The exceptionally successful student may be allowed to enrol in another study programme at the University on conditions which are specified in the General Act of the Constituent faculty at which the student is studying and the one he or she wants to enrol in.
- 3 It is possible to allow the end of studies to the exceptionally successful student in the period shorter than the prescribed length of studies, that is, an entry of more than 35 ECTS credits per semester as well as other privileges according to such a decision of the Constituent unit at which he or she is studying.

#### Article 12

##### Athletes and Artists

A regular student who has the status of the categorized athlete or the top-quality artist makes a contract on the terms of studying with the Constituent faculty.

#### Article 13

##### Participation in the Study Expenses

- 1 The study expenses, partly or fully, are paid by resources provided by the competent Ministry, and the amount of the student's participation in the study expenses is determined depending on his or her accomplishment in the admission procedure (for the first year of studying), that is, during the studies, respectively.
- 2 The criteria and terms for the student's participation in the study expenses are determined based on special decisions made by the competent Ministry and the Senate of the University of Zagreb.
- 3 The Faculty may determine the way of participation in the study expenses of the students financially at risk by making such a decision.

#### Article 14

##### Student Book

- 1 The student status is proved by the Student Book. The form and the contents of the Student Book are prescribed by the Senate.
- 2 In accordance with the study programme, the academic year/semester is entered in the student's Student Book.
- 3 Courses may be entered per semester in accordance with the study programme.
- 4 If a student loses or damages his/her Student Book, at his/her request a duplicate of the document will be issued. The costs of issuing a duplicate of the Student Book are defrayed by the student.



## Article 15 Student Status Cessation

- 1 The status of the student ends:
  - a) by the studies completion,
  - b) by withdrawal from the studies,
  - c) if he/she does not enrol in the following academic year in the prescribed period,
  - d) if in two successive academic years he/she does not acquire at least 35 ECTS credits,
  - e) by being expelled based on a disciplinary decision made by the competent body,
  - f) after expiring the time twice longer than the prescribed length of studies, taking into account that the time of the student's obligation being dormant does not count,
  - g) if he/she does not pass an exam in the way determined by the Statute of the University, and
  - h) in other cases stipulated by the Faculty General Acts.
- 2 The student who has withdrawn from the Study is issued a withdrawal document with denoting the time of studying, ECTS credits acquired altogether and the list of exams passed together with associated ECTS credits and accomplished grades. A note on withdrawal is entered in the Student Book.
- 3 The person who loses the student status cannot enrol in the same study programme or continue studying at the same study programme. The Faculty decides on a possibility of continuing the studies at its other study programme.
- 4 Exceptionally, the person, who according to section 1, item c of this article, loses the student status, may be allowed to enrol in the academic year in accordance with the existing curriculum. If the curriculum changed during pausing, the student must enrol in and take the differences in the study programme occurred in the meantime. Such a student continues his/her studies paying the full amount of the study expense.

## Article 16 Right to the Obligations being Dormant

- 1 The right to obligations being dormant exists:
  - during doing military service,
  - during pregnancy,
  - for the student mother or the student father who uses a maternity or a paternity leave up to one year of the child's age,
  - during illness which hinders the student from successful fulfilling the study obligations during a longer period of time,
  - during an international student exchange in the period longer than 30 days while the teaching process is being executed, if the student does not acquire ECTS credits through that exchange, and
  - in the other justifiable cases in accordance with the General Act of the Constituent faculty at which the student is studying.
- 2 The student gains the right to obligations suspending by the Faculty document upon a submitted written request with an explanation and associated documentation. The request is submitted within the time prescribed by the Faculty.
- 3 In accordance with this Rule Book a student may be granted obligations suspending in the period of one academic year. The time of obligation suspending is not included in the time of the studies length.

- 4 During obligations being dormant the student may take examinations, for which he/she has got conditions pursuant to Article 41 of this Rule Book.
- 5 The student must enrol in and take differences in the study programme occurred in the meantime if the study programme is changed during obligations suspending.

#### **Article 17**

##### **Student Disciplinary Responsibility**

In case of a breach of the Statute, the Ethical Codex or the Rule Book of the University, that is, the Statute or the Rule Book of the Faculty, a disciplinary proceeding is taken against the student. Disciplinary deeds, disciplinary proceedings and disciplinary sanctions are prescribed by the General Act of the Faculty.

### **IV ENROLMENT IN THE STUDY**

#### **Article 18**

##### **Enrolment Quotas**

The Faculty enrolls students within the system of determined enrolment quotas approved by the Senate.

#### **Article 19**

##### **Admission Application Procedure**

- 1 Enrolment in the study is carried out on the basis of the public admission application procedure, which is announced by the Senate of the University in accordance with the Statute.
- 2 The admission application procedure is announced by the University at least six months before the teaching starts.
- 3 The content of the admission application procedure is prescribed by the Statute, and the terms and the criteria to be comprised in the admission application procedure are determined by the Faculty.

#### **Article 20**

##### **Right to Apply to Admission Application Procedure for the Integrated Studies**

- 1 A candidate who completed a four-year high school education, that is, candidates that meet the requirements stated in article 21, section 4, of this Rule Book, have the right to apply for the Study admission application procedure.
- 1 The students regularly enrolled in the first year of the study that did not learn the Latin language for at least two years during their previous education must enrol in the Latin language course during the first year of their studies, and pass the exam in Latin before enrolling in the second year of the studies (90 classes).
- 2 The Students who are citizens of other countries of the European Union regularly enrolled in the first year of the studies must pass the exam in the Croatian language until they enrol in the second year (B1 level).

#### **Article 21**

##### **Right to Enrolment in the Study**

- 1 Enrolment in the integrated study is carried out after the completed admission application procedure. When enrolled, the student is issued the Student Book.

- 2 A candidate gains the right to enrolment in the integrated study in accordance with the conditions and the criteria stated in the Invitation for the student admission application as well as according to his/her results in the classification procedure.
- 3 A candidate who has qualified for enrolment loses this right if he or she does not enrol within the time stipulated in the Invitation for admission application to the first year of the studies. Instead of such a candidate, the right to enrolment is gained by the next candidate on the accomplishment list.
- 4 Foreign nationals, who are not citizens of the European Union countries and persons without citizenship, who are not permanent inhabitants of the Republic of Croatia, enrol in the studies under the conditions which are determined by the Faculty each year, based on decisions made by the University and the competent ministry.

#### Article 22

##### Classification Procedure

- 1 The candidates are selected through the classification procedure.
- 2 The Faculty Council determines the elements of which the classification procedure consists.
- 3 The classification procedure is organized and carried out by the Classification Procedure Committee appointed by the Faculty Staff Council. The Dean or the Vice Dean for Academic Affairs is Head of the Council.

#### Article 23

##### Right to Complain

- 1 A candidate has the right to file a complaint about the classification procedure within 24 hours after the classification procedure results have been announced.
- 2 The Classification Procedure Committee is authorized to deal with the candidate's complaint and make the final document on enrolment. The Committee is obliged to consider the candidate's complaint within 24 hours after its submission and make a decision.

#### Article 24

##### Student Leader

- 1 Before the start of teaching in the first semester, the Vice Dean for Academic Affairs decides on each enrolled student's leader, chosen among the Faculty teachers and their associates as well as the students in higher study years. The list of the leaders and their assigned students is announced on the notice board and the website of the Faculty.
- 2 The task of the leader is to monitor the student entrusted with, while fulfilling the student's obligations and to advise the student on matters related to his or her studies in order to make mastering the study programme easier for him/her.
- 3 If the leader is prevented from fulfilling the assumed commitment of the leader for more than 60 days, upon request of the students, the leader, or according to his/her own judgement, the Vice Dean for Academic Affairs will appoint a new student leader.

## V TRANSFER TO OTHER UNIVERSITY STUDIES

### Article 25 Transfer Right

- 1 Transfer to another related study of the same level is possible within the Faculty and the University, or from another university to the University of Zagreb in accordance with the Statute of the Faculty and this Rule Book.
- 2 A student transfer is carried out based on the document on recognizing the achieved ECTS credits. The Faculty Teaching Committee gives opinion on ECTS credit recognition.
- 3 A student studying at a university out of the Republic of Croatia gains the right to transfer to the Faculty according to the procedure stipulated by the law, on conditions stated in this Rule Book.
- 4 The total number of transferring students is determined by the Faculty Council for each academic year.
- 5 The total number of transferring students and students at the faculty cannot be greater than the capacity of the Constituent faculty.

### Article 26 Transfer Conditions

- 1 Transfer can be carried out only from the second to the fourth year of studies; thereby transfer is not possible during the academic year when the student enrolled in the study for the first time.
- 2 Students from other pharmaceutical and medical biochemistry or similar faculties in the country or abroad can transfer to the Faculty if there is a compatibility of teaching plans and programmes for acquiring the academic title of Master of Pharmacy or Master of Medical Biochemistry and Laboratory Medicine in accordance with conditions prescribed by this Rule Book.
- 3 General conditions of transfer besides the compatibility of teaching plans and programmes are:
  - a) that the candidate has the exams passed and other requirements for regular enrolment in the higher year of studies at the home faculty met,
  - b) that he/she did not repeat a year of the studies, and
  - c) that he/she can speak Croatian (a foreign national confirms that by relevant documentation.
- 4 If more candidates than the number determined by the Faculty Council decision, pursuant to Article 25, section 4 of this Rule Book, meet the general requirements of transfer, the candidates who got a better overall grade for accomplishment at the faculty they are transferring from are given priority. The overall assessment of the study accomplishment is determined according to Article 66 of this Rule Book.
- 5 Exceptionally, transfer may be approved to students who do not meet the general conditions if transfer is required due to a serious illness, family relocation, top athletes' training obligations or any other justified cause.

### Article 27 Required Documents

- 1 The request for transfer is submitted not later than seven days before the end of the regular period of enrolment in the academic year.

- 2 Along with the explained request the student is obliged to enclose:
  - a) the Student Book,
  - b) the confirmation document on the exams taken and the overall grade of the studies till then, calculated pursuant to Article 67, section 3 of this Rule Book,
  - c) the acknowledgement of the Faculty, which he/she is transferring from, that he/she has gained the right to enrol in the following year of studying,
  - d) the curriculum and the programme of the study which the transferring student is transferred from,
  - e) Citizen Certificate, and for foreign citizens a passport copy as well as a copy of the document on temporary stay.
- 3 The student who is transferring from a faculty abroad, along with original documents, must provide the certified translation of those documents as well as the certified translation of the study syllabus (curriculum studiorum), and also a document on recognition the period of studying by the authorized agency.

#### Article 28 Transfer Decision

- 1 The decision on transfer is made by the Dean on the motion of the Teaching Committee.
- 2 The exams passed at the home faculty, and recognized by the document pursuant to Article 25, section 2, are entered in the transferring student's record of the *taken exams*.
- 3 All the courses taken at the home faculty, whose content and extent approximately correspond to the courses from the study programme of the Faculty, are recognized either wholly, or differential obligations are determined for the transferring student. On the basis of recognizing the exams passed at the home faculty either wholly or after successfully fulfilled the differential obligations, the student gets the associated ECTS credits, scheduled by the study programme to which he/she has transferred.

#### Article 29 Enrolment of Transferring Students

- 1 The transferring student must enrol till the end of the admission period, that is, at the latest eight days upon receiving the document on transfer.
- 2 In the year of transfer the transferring student pays the full participation in the study expenses, and in the following years he/she studies under the same conditions as the other students at the Faculty.

## VI MOBILITY OF STUDENTS

#### Article 30 Horizontal Mobility of Students within the University

- 1 Students may, in accordance with the study programme, enrol in certain courses of other university studies (study programmes) at the University, which are not executed at their home study. The enrolment in courses is approved by the person responsible for the study programme and ECTS coordinator at the constituent faculty (the study programme authority), in agreement with ECTS coordinator at the constituent faculty where the chosen course is executed and with the chosen programme authority.
- 2 About the approval a special confirmation document is issued, in which the course title is stated and the course credit value is determined (the number of ECTS). The

achieved ECTS credits are recognized as if realized within the home university study (study programme), and the course credit value matches the one which that course has in the study, that is, the programme within which it is executed. The University prescribes the form of the confirmation document.

- 3 Before enrolling in the academic year each constituent unit of the University announces the list of courses with the required entry competences, which may be enrolled in by the students who study at another constituent unit.
- 4 The number of students who may enrol in a particular course is limited by the Faculty capacity, on which the Dean decides at the motion of the course holder.
- 5 The course which the student is doing at another constituent faculty is entered in the Student Book. The course holder confirms the fulfilment of the student's obligations by entering ECTS credits as well as the grade and by his/her signature in the Student Book. ECTS credits acquired at another study programme are proved by submitting a certified copy of the grade (ECTS credits) for checking or in another suitable way.
- 6 The study expenses related to mobility within the University are regulated by a special decision made by the Senate.

### Article 31

#### Mobility of Students between Universities

Mobility of students between universities in the Republic of Croatia is organized in the same way as the international mobility, in accordance with the University Rule Book on International Mobility.

## VII ORGANIZATION OF TEACHING

### Article 32

#### Teaching Performance and Attendance

- 1 Teaching is executed in semesters according to provisions of the teaching execution plan. Teaching may be executed in cycle or doubled classes.
- 2 Teaching is executed in the form of lectures, seminars, exercise lessons, professional practice, field lessons, exams, preliminary exams, leading and mentorship, consultations, diploma thesis and graduation exam, final exam, and other forms of teaching which contribute to knowledge, skills and competences acquirement.
- 3 Teaching can also be executed in virtual environment for learning and teaching (e-learning).
- 4 Teaching is executed by teachers, associates and other participants in the teaching process in accordance with the Statute of the University, and according to the Faculty decision on entrustment of teaching, which is made before the start of each academic year.
- 5 If teaching is executed by several teachers and/or associates, only course leaders are entered in the Student Book.
- 6 Course leaders can be teachers elected in the scientific-teaching profession from docent to professor or in the teaching profession of lecturer or senior lecturer.
- 7 By enrolling in a particular course, either compulsory or elective, which belongs to the study programme, the student accepts all obligations specified in the plan and programme of that course.
- 8 During a semester the student can be justifiably absent from classes of a particular course at the most up to 20% of the total number of hours of that course, with the obligation of fulfilling all the student commitments. Justifiable absence includes illness

(which is proved by a medical certificate), case of death, etc. Each department/centre/ autonomous course decides on the obligation of attending classes, the way of checking the class attendance, the number of absence hours and the way of compensation.

- 9 The teacher may refuse to verify the fulfilment of class obligations (signature) to the student who did not fulfil the obligations set by the course implementing plan and the study programme. In such a case the student is obliged to re-enrol in the course.

### Article 33

#### Physical Education Classes

- 1 Physical Education Classes are executed within obligatory classes in the first and the second year of the integrated study. The Physical Education Course teacher and the Vice Dean for Education are in charge of class organization and class checking.
- 2 Students in higher years of study may join the Faculty sports activities.

### Article 34

#### University Calendar

- 1 The Senate sets the University Calendar and announces it on its website. The University calendar contains framework determination of the start and end of the teaching year, terms of teaching execution, terms of examinations, and the list of national and university holidays.
- 2 On the basis of the University Calendar the Faculty Council determines the teaching and examination calendar, and announces it on the Faculty website as well as on the notice board.

### Article 35

#### Evidence of Classes Held

Each department/centre/autonomous course is obliged to keep record of the classes held. The held classes are recorded in electronic and written form, and stored in the departments, centres/autonomous courses as well as in the Deanery.

## VIII STUDENT WORKLOAD

### Article 36

#### System of ECTS credits

- 1 ECTS credits stand for numerical value added to a particular course, indicating the student's work required for fulfilling all stipulated obligations in the course, including exam taking too, that is, for achieving the programme goals expressed in terms of expected learning results and acquired competences.
- 2 1 ECTS credit corresponds to the student workload of 25 to 30 working hours, including active classes, examinations and all activities required for taking exams.
- 3 A regular student earns 25-35 ECTS credits in one semester, in accordance with the study programme.
- 4 A student who regularly fulfils his/her obligations may be allowed to earn more than 35 ECTS credits, with the aim of the faster finishing the studies or acquiring broader education.

- 5 Exceptionally, a regular student may earn fewer than 25 ECTS credits if he/she has not achieved prerequisites for enrolling in the sufficient number of courses.
- 6 ECTS credits are acquired exclusively after successful fulfilling all the stipulated obligations and applying appropriate methods for evaluating the achievement of the defined learning results, i.e., the passed exam.
- 7 The applying of ECTS system implies:
  - precise determining the expected learning results for each course,
  - establishing the student workload for all the stipulated activities in each course,
  - determining the method of achievement evaluation for each stated learning result, and
  - deciding on the way of earning credits/assessment of each particular activity.

#### Article 37

##### Transcript of ECTS Credits and Additional Document on the Study

- 1 The Faculty is obliged to ensure transcript of all elements required for transfer as well as ECTS credit recognition to each student, pursuant to Article 6 of this Rule Book.
- 2 Upon completion of the study programme the Faculty is obliged to issue the Additional document to the student, pursuant to Article 9 of this Rule Book.

### IX ADVANCEMENT THROUGH THE STUDIES

#### Article 38

##### Enrolment in the Academic Year

- 1 By enrolling in the academic year the student regulates its status. He/she enrolls teaching obligations in semesters or annually.
- 2 The student can enrol only in those courses for which he/she gained prerequisites according to the study programme and the executing study plan in accordance with the Annex I of this Rule Book.
- 3 The student who did not fulfil the stipulated obligations in the enrolled courses must re-enrol in those courses in the following academic year according to Article 40 of this Rule Book.
- 4 The total number of ECTS points per semester in both new and re-enrolled courses must be in accordance with article 36, items 3, 4, 5, and 6 of this Rulebook.

#### Article 39

##### Cancelling the Enrolled Course

Enrolment in the course may be cancelled only during the first two weeks of teaching, and exclusively due to a justifiable cause (e.g., time schedule collision).

#### Article 40

##### Re-enrolment in the Course

- 1 The student who re-enrols in the same course is not obliged to attend classes again and he/she organizes his/her rights and obligations regarding continuous knowledge checking, writing seminar papers and taking examinations in agreement with the course leader.
- 2 If the re-enrolment in the course is based on the unsuccessful exam taking in the fourth attempt, the course teacher determines which class obligations the student must do again.



## X EXAMINATION

### Article 41

#### Examination and other Knowledge Controls

- 1 Knowledge and skills of a student can be checked in the course examination and/or evaluated during teaching process (mid-term exams, practical assignments, seminar papers, project tasks, etc.), according to guidelines on conducting examinations at the University of Zagreb Faculty of Pharmacy and Biochemistry, which constitute Annex II of this Rule Book. ECTS credit acquirement from particular ways of teaching may be determined by the study programme even without assessment or by descriptive evaluation.
- 2 The student who did not fulfil obligations stated by the study programme and the executing teaching plan in a particular course cannot sit for that course examination.
- 3 Examinations can be theoretical and/or practical, and they are taken only in written form, only orally, or in writing and orally, or by a practical assignment performing/presentation. The practical part of an examination can be performed separately from the theoretical part.
- 4 The entire examination must be completed within a maximum of five working days, except in especially justified cases (such as the teacher being prevented or a large number of the students who sat for the examination).
- 5 The overall examination of a student in an oral exam must not last longer than 30 minutes. A written examination may last up to 120 minutes.
- 6 The written part of an examination may be eliminating, except if taken before the Committee, pursuant to Article 49 of this Rule Book, and in accordance with the Statute of the University.
- 7 The student is entitled to get access to the marked paper of the written part of examination within the time determined and announced by the teacher.
- 8 The examinations are free of charge.
- 9 Examination in the same course may be sat for four times at the most. The fourth time, the examination is sat for before the Examination Committee, pursuant to Article 49 of this Rule Book. The student, who in his/her fourth attempt fails to pass the examination in the same course, is obliged to re-enrol in and do that course again in the following academic year. If the student, after re-enrolling in the course, again does not succeed in passing the examination in the way determined in section 1 of this article, he/she is not entitled to continue studying at that study programme any longer.

### Article 42

#### Examination Openness to Public

- 1 The oral part of the examination is open to public.
- 2 If there are justified reasons, the student and/or the teacher may ask for limited public presence.
- 3 When needed, the public presence during the exam may be limited because of some other reasons as well.
- 4 The student and another person who proves that he/she has such a legal interest, has the right to consult the examination documentation.

**Article 43**  
**Examination Periods**

- 1 Examination periods can be regular and extraordinary.
- 2 Regular examination periods are winter, summer and autumn ones when teaching is organized per semester, each examination period lasting for at least three weeks. During each regular examination period there are at least two examination terms for each course. The interval between two sittings for examination in the same subject during a regular examination period is at least eight days.
- 3 If in a particular course the student knowledge is checked continually during the semester, examination in that course need not take place in the periods according section 2 of this article.
- 4 When justifiable, the Dean or the Faculty Council may also determine extraordinary examination periods and it can be determined that during one extraordinary examination period per semester, active teaching does not take place for 5 working days at the most.
- 5 Exceptionally, the course teacher in agreement with the students may, after finishing the classes in the semester in which the course was performed, organize a preliminary examination period. The preliminary examination period is approved of by the Vice Dean for Education.

**Article 44**  
**Examination Timetable**

- 1 The Examination Calendar is determined by the Teaching Committee and it is announced on the notice board and on the Faculty web pages.
- 2 The timetable of examination terms is announced on the notice board and/or on the Faculty web pages, and/or by means of the system for electronic monitoring of teaching, the timetable being determined in the way to enable sitting for an examination to all the students who are entitled to sit for that course examination.
- 3 The examination terms in the regular examination periods for compulsory courses must not overlap within a period of 48 hours.

**Article 45**  
**Examination Registration**

- 1 The student must register for sitting for an examination or cancel the registration at the latest one working day (till 12.00) before the examination term.
- 2 Only in exceptional cases the student may request cancelling an examination registration afterwards (by submitting relevant documentation).
- 3 During registration or cancelling the examination registration, the student is obliged to keep the receipt and the examination registration or the examination cancelling number.
- 4 Possible complaints to the examination registration/cancelling without the kept receipt (transaction number) are not to be considered by the Student Office.

**Article 46**  
**Time of Sitting for an Examination**

The timetable of sitting for examinations for the registered students is announced on the notice board, on web pages and/or by the system for electronic monitoring of teaching, one day before the beginning of the examination.

**Article 47**  
**Number of Sitting for an Examination**

In accordance with the Statute of the University and Article 41, section 9, of this Rule Book, an examination in the same course may be sat for four times at the most. The fourth time the examination is sat for before a three-member committee. The student who does fail to take the examination in the course for the fourth time is obliged to enrol in and do that course again in the following academic year. After the re-enrolment also, the student has a right to sit for the examination 4 times at the most.

**Article 48**  
**Entrustment of Examination Holding**

During the time of the course teacher being prevented, the Dean, or in his/her absence the Vice Dean for Education, or the study leader shall entrust temporarily another teacher of the same or related profession, or the Teaching Committee with examination holding.

**Article 49**  
**Examination before the Examination Committee**

- 1 The Dean, and in his/her absence the Vice Dean for Education, appoints the Examination Committee.
- 2 The Examination Committee consists of the course leader and two more teachers, minding that one member of the Committee must be from another Department/Centre/Autonomous Course.
- 3 The course leader cannot be Head of the Committee.
- 4 A student is entitled to an examination before the Examination Committee regardless of his/her results in the written examination.
- 5 The student who did not sit for the written examination is not entitled to the oral examination.
- 6 The Examination Committee makes the decision by a majority of votes and the registration form is signed by the course leader.
- 7 The course leader enters the mark in the Student Book.
- 8 During an examination before the Examination Committee, Head of the Committee takes the minutes.
- 9 A complaint against the mark given by the Examination Committee cannot be submitted.

**Article 50**  
**Grading**

- 1 The final grade of a student's accomplishment in each course may be determined on the basis of activities during teaching and/or in the examination if it is stated by the Study teaching plan.
- 2 During teaching the following may be evaluated:
  - students' presence in classes,

- students' activities in classes which are determined by the Study programme and by which credits are acquired (participation in debates, written preparation for work in classes, work on a project, writing essays, searching the Internet, practical exercises in real settings, field research, e-learning, programme making, seminar papers, etc.),
  - Mid-term exams, by which the students' accomplishments are gradually followed.
- 3 By the executing plan of the course subject, the way of evaluating a student's activities during teaching is prescribed and included in the final course mark.

#### Article 51 Grades

- 1 A student's success in a course is expressed by grades from 1 to 5, and if need be by ECTS grades A to F in the ECTS system:
- grade excellent (5) matches grade A in ECTS scale, and inversely,
  - grade very good (4) matches grade B in ECTS scale, and inversely,
  - grade good (3) matches grade C in ECTS scale, and inversely,
  - grade sufficient (2) matches grade D in ECTS scale, and grades D and E in ECTS scale are rendered to grade sufficient (2),
  - grade insufficient (1) matches grade F in ECTS scale, and grades F and FX in ECTS scale are rendered to grade insufficient (1)
- 2 Pass grades are: excellent (5), very good (4), good (3), and sufficient (2).
- 3 A student's success in a course may be expressed by a descriptive mark.
- 4 The teacher or associate who executes teaching is entitled to check and mark the students' knowledge in each stipulated teaching form.
- 5 By the executing programme of the course subject it may be stipulated that the students' grades in certain teaching forms are involved in the final grade of the student knowledge in the course subject, achieved in examination and/or other ways of checking.
- 6 Only a pass grade is entered in the Student Book.

#### Article 52 Average Grade

- 1 When calculating the average grade, all grades of the examinations taken, except descriptive grades, are taken into account.
- 2 The average grade is expressed by rounding to two decimals.

#### Article 53 Examination Record

- 1 A special record of an examination is taken according to provisions of the competent ministry special rulebook.
- 2 Data on an examination are taken about each student individually at the level of the Course/Department/Centre and at the level of the Student Office. At the Course/Department/Centre level the data are entered electronically, by means of a programme regulated by the Faculty, in the registration form, in the Student Book and in the examination minutes.
- 3 At the level of the Student Office the data on sitting for examinations are stored electronically, and in each student's personal file (dossier) only the registration forms

which serve as confirmation of the examinations taken, and the minutes of the examinations before the Examination Committee are stored.

#### Article 54 Teachers' Obligations

- 1 The teacher is obligated to inform the student of the oral examination result immediately after the examination being held and of the written examination result at the latest within five working days from the examination day, by announcing the results on the official web pages, the notice board or by the system for electronic monitoring of teaching.
- 2 The teacher shall also mark a student examination with grade insufficient (1), when the student:
  - does not sit for a written examination or he/she cancels it, or gives up an already commenced oral examination,
  - after the written part of an examination he/she does not come to the oral examination, and
  - if he/she is suspended from an examination because of unseemly behaviour, disturbing other students or using disallowed aids.

#### Article 55 The Right to Appeal against the Grade

- 1 The student has the right to appeal against the grade, except in the case of an examination before the Examination Committee, in accordance with Article 49 of this Rule Book on Studying at Graduate Studies at FBP.
- 2 The Student may set a reasoned request to repeat the exam before the Examination Committee within 24 hours of the examination completion or announcement of the written examination results.
- 3 The Dean, and in his/her absence, the Vice Dean for Education, deals with the complaint and if he/she estimates that the appeal is justified, he/she appoints the Examination Committee in accordance with Article 49 of this Rule Book on Studying at Graduate Studies at FBP. The examination before the Examination Committee must be held up to 72 hours after completion of the examination against which the student appealed.

### XI COMMENDATION AND AWARDING THE STUDENTS

#### Article 56

The Faculty will award the students of the University of Zagreb Faculty of Pharmacy and Biochemistry, with the aim of encouraging excellence, scientific and professional work of the students, promoting student creativity, and other activities student.

#### Article 57

The Dean may, at the motion of the Teaching Committee, or the Committee for Student Work and Award, assign one or more awards and commendation each academic year to a student or a group of students for:

- a) achieving the greatest accomplishment in a particular academic year,
- b) achieving the greatest accomplishment upon completion of graduate studies,
- c) a student scientific paper,

- d) the extracurricular activities (international competitions, conference presentations, work in the Faculty magazines, art or sports groups, work in student associations, etc.).

#### Article 58

- 1 For the greatest accomplishment during the studies five Pharmacy students and two Medical Biochemistry students shall be lauded in each studying year on the basis of:
  - regular studying
  - achieved weighty grade average
  - earned ECTS credits total
- 2 The commendation consists of a written plaque whose content is determined by the Dean.

#### Article 59

- 1 Praise of the Latin classification for the greatest achieved accomplishment, upon completion of graduate studies shall be denoted on the Diploma:
  - Master with the greatest commendation (SUMMA CUM LAUDE Master);
  - Master with great commendation (MAGNA CUM LAUDE Master);
  - Master with commendation (CUM LAUDE Master).
- 2 The students, who regularly enrolled in each studying year and passed all the examinations with a weighty grade average of at least 4.8, shall be praised with the greatest commendation (SUMMA CUM LAUDE).
- 3 The students, who regularly enrolled in each studying year and passed all the examinations with a weighty grade average of at least 4.5, shall be praised with great commendation (MAGNA CUM LAUDE).
- 4 The students, who regularly enrolled in each studying year and passed all the examinations with a weighty grade average of at least 4.3, shall be praised with commendation (CUM LAUDE).

#### Article 60

- 1 For a student scientific work the students will be awarded as follows:
  - a) for a completed scientific work that was not awarded the Rector's Prize, according to a recommendation of the Committee for Student Works and Awards,
  - b) for a scientific paper that was published in the scientific magazine with an international review.
- 2 The award consists of a Charter and an amount of money. The amount of the award is decided on by the Dean's Collegium. The content and form of the Charter is determined by the Dean.
- 3 If more students worked on the same work, each of the students-authors of the awarded work is given a Charter, and the amount of money is awarded to them equally.

#### Article 61

- 1 Commendation may be given to the students for the extracurricular activities, by which they contributed that contributed to the Faculty reputation (international competitions, scientific conference presentations, work in the Faculty magazines, art or sports groups, work in student associations, etc.).

- 2 The commendation for extracurricular activities can be awarded to the student once during his/her studies.
- 3 The commendation consists of a written plaque whose content is determined by the Dean.

#### Article 62

The decision on award assignment with a list of the awarded students is announced on the notice board at the latest eight days before the award assignment.

The award is assigned at the end of the academic year in which the student has been awarded or at the beginning of the next academic year.

The award is ceremonially awarded by the Dean in at the Faculty Senate session.

The commendation for the greatest achievement upon completion of the graduate study from Article 59 is presented by the Dean at the promotion.

## XII DIPLOMA THESIS AND FINAL EXAM

#### Article 63

The Study is completed by passing all the exams and completing the other study obligations, by making the thesis and taking the public graduation examination as well as the final exam after the professional training in accordance with the study programme having been done.

#### Article 64

The organization of making the diploma theses is led by the Committee for Diploma Theses. The Thesis as a rule presents the student's work done under supervision of his/her mentor, either at the Faculty or at a co-working institution, which offers a possibility of scientific-research work, according to the Guidelines on making the Thesis, which constitute Annex III of this Rule Book.

In the case of the thesis being made at a co-working institution, the Committee for Diploma Theses on the motion of the teacher-leader, appoints an expert person at that institution, under whose supervision the student shall do practical part of his/her Diploma Thesis.

By graduation examination the student proves that he/she is able to apply knowledge and skills acquired during the studies and that he/she is able to solve tasks of his profession.

The graduation examination is an oral examination consisting of defending the Diploma Thesis and checking the graduate's knowledge of the Thesis field.

The graduation examination is public and taken before the Committee, appointed by the Dean at the motion of the Committee for Diploma Theses and must be completed in one day.

The Committee for Diploma Theses states the terms of taking Graduation examinations, notifying the members of the Committee, the student and the Student Office of those.

#### Article 65

The student who meets the following requirements can access the final examination:

- a) he or she studied at the Faculty for at least two years,
- b) he or she met all the requirements of compulsory and elective forms of teaching, stipulated by the executive teaching plan,
- c) he or she passed all the prescribed examinations and earned a minimum of 300 ECTS credits,
- d) he or she passed the graduation examination,
- e) he or she completed the prescribed professional practice.

**Article 66**  
**Documents on the Completed Studies**

- 1 Upon completion of the graduate study, the student is issued a diploma certifying the completion of his/her studies and the awarded academic title in accordance with the Law.
- 2 The diploma is issued in the Croatian and English language. At the request of the student and at his/her expense, the diploma may be issued in Latin and/or in one of other world languages.
- 3 After completing the entire study programme, the Faculty is obliged to provide the Additional Document in Croatian and English to the student, without charging a fee, in accordance with Article 8 of this Rule Book. At the request of the student and at his/her expense the Additional Document on the study may be issued in another world language.
- 4 The contents of diplomas and additional documents on the study are prescribed by the competent ministry and the form of diplomas and additional documents is prescribed by the University.
- 5 Diplomas, additional documents and certificates issued by the University are public documents.

**Article 67**  
**Overall Grade of Accomplishment during the Study**

- 1 The overall grade of accomplishment at the study depends on grades in all the courses and their associated ECTS credits.
- 2 The courses marked only by the grade “satisfactory” are not taken into consideration when calculating the overall grade of accomplishment at the study.
- 3 The overall grade of accomplishment at the study, the weighty grade average, is determined by adding up the individual grades in all the course examinations, from section 1 of this article, multiplied by their associate number of ECTS credits and by dividing the result by the sum of ECTS credits in all the courses, from section 1 of this article.
- 4 The overall grade of accomplishment is presented in the documents by rounding to the second decimal.

**Article 68**  
**Promotion**

- 1 Promotion is ceremonial awarding of the Diploma on completion of the study.
- 2 The diploma is handed by the Dean and two promoters.

**XIII MONITORING AND IMPROVING THE STUDY QUALITY**

**Article 69**  
**Monitoring and Improving the Quality of Studies**

The Faculty is obligated to monitor and improve the quality of each course, the entire study programme as well as organizational and administrative support of the study programme in accordance with the University Rule Book on Quality Assurance and Rule Book on Quality Assurance at the University of Zagreb Faculty of Pharmacy and Biochemistry.



## XIV PARTICIPATION OF STUDENTS IN THE WORK OF THE FACULTY

### Article 70

Students participate in the work of the Faculty through the elected student representatives (the Faculty Council, the Teaching Committee, the Committee for Quality Assurance, etc.).

### Article 71

#### The Election and Work of Demonstrators

- 1 Demonstrators are students who help teachers and associates with carrying out practical classes.
- 2 Demonstrators are appointed by the Vice Dean for Education on the basis of proposal of the Department/Centre or Autonomous Course from the ranks of successful students with their personal consent.
- 3 A demonstrator participates in teaching not more than nine hours a week, and at least two hours a week, i.e. at the most up to 135 hours per semester, and at least 30 hours per semester.
- 4 Demonstrators may receive a reward for their work by hour of the performed teaching, in the amount determined by the Dean at the beginning of each academic year. The total hours of demonstrations in a course must not exceed 40% of standard hours of practical teaching in a certain course.
- 5 The work of demonstrators is subject to evaluation by the Department/Centre or Autonomous Course as well as by the students.
- 6 A demonstrator whose work is positively evaluated is issued a certificate of the work performed.

### Article 72

#### Professional and Scientific-Research Work of Students

- 1 Students can get involved in the work on scientific tasks of a particular Department/Centre or Autonomous Course.
- 2 The lists of scientific projects on which the students can work are announced on notice boards and/or web pages of Departments/Centres or Autonomous Courses at the beginning of the academic year.
- 3 The students perform their professional and scientific work under guidance and supervision of a leader. The teachers and associates of the Faculty with a doctorate of science can be the leaders.
- 4 The students perform professional and scientific work off their regular teaching obligations.

### Article 73

#### Awarding ECTS Credits for Extracurricular Activities

Awarding additional ECTS credits for the activities performed off the classes described in the Study executing plan and programme is carried out in the way described in the University Rule Book on Awarding ECTS Credits for Extracurricular activities, which makes Annex IV of this Rule Book.

## XV TRANSITIONAL AND FINAL PROVISIONS

### Article 74

This Rule Book shall enter into force eight days after its announcement on the Faculty notice board.

### Article 75

The procedure of change and addition to this Rule Book is determined in the procedure identical to the procedure of its adoption.

### Article 76

By this Rule Book entry into force, the Rule Book on Studying at Graduate Studies at the University of Zagreb Faculty of Pharmacy and Biochemistry, Entry No. 251-62-01-11-25 of 30 December 2011 ceases to be valid.

Class: 011-01 / 14 to 01/01  
Entry No.: 251-62-01-14-7  
Zagreb, 2 June 2014

Dean:

Prof. Karmela Barišić, Sc.D., signed

## XVI Appendix I

### SUBJECT CORRELATION AT PHARMACY STUDIES

1st SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Introduction to Pharmacy	O	15	1.5	no	no
Mathematics with Statistical Analysis	O	75	7.5	no	no
Cell Biology with Genetics	O	75	7.5	no	no
Physics	O	75	7.5	no	no
General Chemistry with Stoichiometry	O	135	11	no	no

2nd SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Pharmaceutical Botany	O	75	7.5	no	no
Sociology and Health Care	O	30	2.5	no	no
Analytical Chemistry	O	75	7.5	no	Passed: General Chemistry with Stoichiometry
Physical Chemistry I	O	75	7.5	no	Passed: General Chemistry with Stoichiometry

<b>3rd SEMESTER</b>					
<b>Course Title</b>	<b>Status</b>	<b>Total hours</b>	<b>ECTS</b>	<b>Enrolment prerequisite</b>	<b>Examination prerequisite</b>
Analytical Chemistry II	O	60	6	<b>Done: Analytical Chemistry I</b>	<b>Passed: Analytical Chemistry I</b>
Physical Chemistry II	O	60	6	<b>Done: Physical Chemistry I</b>	<b>Passed: Physical Chemistry I</b>
				<b>Passed: Physics</b>	<b>Passed: Mathematics with Statistical Analysis</b>
Organic Chemistry	O	135	11.5	<b>Passed: General Chemistry with Stoichiometry</b>	no
Biological Chemistry	O	45	3.5	<b>Passed: Cell Biology with Genetics</b>	<b>Passed: General Chemistry with Stoichiometry</b>

<b>4th SEMESTER</b>					
<b>Course Title</b>	<b>Status</b>	<b>Total hours</b>	<b>ECTS</b>	<b>Enrolment prerequisite</b>	<b>Examination prerequisite</b>
Physiology with Human Anatomy	O	105	9	<b>Passed: Cell Biology with Genetics</b>	no
Microbiology with Parasitology	O	90	8	<b>Passed: Cell Biology with Genetics</b>	no
Biochemistry	O	100	8.5	<b>Done: Biological Chemistry</b>	<b>Passed: Biological Chemistry</b>
Pharmacognosy I	O	90	7.5	<b>Passed: Pharmaceutical Botany</b>	<b>Passed: Analytical Chemistry 1</b>

5th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Pharmacognosy 2	O	75	6	Done: Pharmacognosy 1	Passed: Pharmacognosy 1
Pathophysiology with Pathology	O	90	7.5	Done: Physiology with Human Anatomy Done: Microbiology with p Parasitology	Passed: Physiology with Human Anatomy
Pharmaceutical Chemistry I	O	112	9	Passed: Organic Chemistry	no
Pharmaceutics	O	45	3.5	Passed: Physical Chemistry 2	no
Pharmaceutical Informatics	I	30	2.5	5th semester enrolled	no
Physical-Chemical Methods in Biomedical Research	I	30	2,5	5th semester enrolled Passed: Physical Chemistry 2	no
Health Ecology	I	15	1.5	5th semester enrolled	no
Selected Methods from Applied Psychology	I	30	2.5	5th semester enrolled	no
Contemporary Biochemical Methods	I	30	2,5	5th semester enrolled Passed: Biological Chemistry	Passed: Analytical Chemistry 2
				Done: Biochemistry	Passed: Biochemistry

<b>6th SEMESTER</b>					
<b>Course Title</b>	<b>Status</b>	<b>Total hours</b>	<b>ECTS</b>	<b>Enrolment prerequisite</b>	<b>Examination prerequisite</b>
Biopharmacy with Pharmacokinetics	O	60	5	<b>Done: Pharmaceutics</b>	<b>Passed: Pharmaceutics</b>
Molecular Biology with Genetic Engineering	O	75	6	<b>Passed: Biochemistry</b>	<b>Passed: Microbiology with parasitology</b>
Clinical Biochemistry with Haematology	O	75	6	<b>Done: Pathophysiology with Pathology</b> <b>Passed: Biochemistry</b>	<b>Passed: Physiology with Human Anatomy</b>
Nutrition Biochemistry	O	60	5	<b>Passed: Biochemistry</b>	no
Pharmaceutical Chemistry 2	O	53	5	<b>Done: Pharmaceutical Chemistry 1</b>	<b>Passed: Pharmaceutical Chemistry 1</b>
Professional Practice 1	O	30	2	<b>Done: Pharmacognosy 2</b> <b>Done: Pharmaceutical Chemistry 1</b>	no
Spectroscopic Identification of Organic Compounds	I	30	2.5	6th semester enrolled <b>Passed: Organic Chemistry</b>	no
History of Pharmacy	I	15	1.5	6th semester enrolled	no
Metal-Proteins – Structure and Mechanism	I	20	2	6th semester enrolled <b>Passed: Biochemistry</b>	no

Selected Methods of Instrumental Analysis	I	30	2.5	6th semester enrolled <b>Passed: Analytical Chemistry 2</b>	no
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7th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Pharmacology	O	135	10.5	<b>Passed: Pathophysiology with Pathology</b> <b>Done: Pharmaceutical Chemistry 2</b> <b>Done: Biochemistry</b>	<b>Passed: Pharmaceutical Chemistry 2</b> <b>Passed: Biochemistry</b>
Drugs designing	O	105	9	<b>Done: Biopharmacy with Pharmacokinetics</b>	Passed: Biopharmacy with Pharmacokinetics
Drugs Analytics	O	135	10.5	<b>Passed: Analytical Chemistry 2</b> <b>Done : Pharmaceutical Chemistry 2</b>	<b>Passed: Pharmaceutical Chemistry 2</b>
Pharmacoeconomics	I	30	2.5	7th semester enrolled	no
Selected Chapters from Pharmaceutical Chemistry	I	30	2.5	7th semester enrolled <b>Done: Pharmaceutical Chemistry 2</b>	<b>Passed: Pharmaceutical Chemistry 2</b>
Molecular Bases of Disease and Therapy	I	30	2.5	7th semester enrolled <b>Done: Molecular Biology with Genetic Engineering</b> <b>Passed: Pathophysiology with Pathology</b>	<b>Passed: Molecular Biology with Genetic Engineering</b>

Applied Microbiology	I	30	2.5	7th semester enrolled <b>Done: Molecular Biology with Genetic Engineering</b> <b>Passed: Microbiology with Parasitology</b>	no
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8th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Immunology	O	30	2.5	<b>Done: Pharmacology</b>	<b>Passed: Clinical Biochemistry with Haematology</b>
Drugs Biochemistry	O	90	8	<b>Done: Pharmaceutical Chemistry 2</b> <b>Done: Pharmacology</b>	Passed: Pharmaceutical Chemistry 2
Magistral Prescription	O	45	3.5	<b>Done: Drugs Designing</b>	<b>Passed: Drugs Designing</b>
Analytical Toxicology	O	60	5	<b>Done: Pharmacology</b>	no
Clinical Pharmacy with Pharmacotherapy	O	75	6	<b>Done: Pharmacology</b>	<b>Passed: Pharmacology</b>
Professional Practice II	O	60	3	Finished: Professional Practice I: <b>Done: Pharmacology</b> <b>Done: Magistral Prescription</b> Passed: Drugs Designing Passed: Pharmacognosy2	no
Bioactive Natural Products Isolation	I	30	2.5	8th semester enrolled <b>Done: Pharmacognosy 1</b>	<b>Passed: Pharmacognosy 1</b>
Phytopharmacy	I	30	2.5	8th semester enrolled <b>Done: Pharmacognosy 2</b>	<b>Passed: Pharmacognosy 2</b>



				<b>Passed: Pathophysiology with Pathology</b>	
Experimental Pharmacology	I	30	2.5	8th semester enrolled <b>Done: Pharmacology</b>	<b>Passed: Pharmacology</b>
Analytics in Pharmaceutical Products Development	I	30	2,5	8th semester enrolled <b>Done: Drugs Analytics</b>	<b>Passed: Drugs Analytics</b>
Quality Assurance and Drugs Registration	I	20	2	8th semester enrolled <b>Done: Drugs Analytics</b>	<b>Passed: Drugs Analytics</b>
New Therapeutic Systems	I	30	2.5	8th semester enrolled <b>Done: Drugs Designing</b>	<b>Passed: Drugs Designing</b>

<b>9th SEMESTER</b>					
<b>Course Title</b>	<b>Status</b>	<b>Total hours</b>	<b>ECTS</b>	<b>Enrolment prerequisite</b>	<b>Examination prerequisite</b>
Cosmetology	O	60	5	<b>Done: Drugs Designing</b>	<b>Passed: Drugs Designing</b>
Pharmaceutical Ethics and Deontology	O	15	1.5	no	no
Pharmacist Care*	O	60	5	<b>Passed: Pharmacology</b> <b>Done: Clinical Pharmacy with Pharmacotherapy</b>	<b>Passed: Clinical Pharmacy with Pharmacotherapy</b>
Health Legislation*	O	15	1.5	9th semester enrolled	no
Communication Skills*	O	15	1.5	9th semester enrolled	no
Diploma Thesis	O	100	10	no	no

Biochemical Bases of Endobiotic and Xenobiotic Toxicity	I	30	2.5	Done: Drugs Biochemistry	Passed: Drugs Biochemistry
New Drugs Designing	I	45	3.5	Done: Pharmaceutical Chemistry 2	Done: Drugs Biochemistry
Industrial Pharmacy	I	30	2.5	no	no
Pharmacogenetics	I	30	2.5	Passed: Pharmacology Passed: Molecular Biology with Genetic Engineering	no
Individualized Health Care	I	20	2	Passed: Pharmacology Passed: Molecular Biology with Genetic Engineering	no
Diet Therapy	I	30	2,5	Passed: Nutrition Biochemistry	no
Sociology in Pharmacy	I	15	1.5	no	no
Biostatistics	I	30	2.5	Passed: Mathematics with Statistical Analysis	no

\* subjects are theoretical part of Pharmacist professional training

10th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment condition	Examination prerequisite
Professional Training for Pharmacists	O	720	30	All compulsory courses passed (except Graduation Exit Exam) Professional Practice 2 finished	All compulsory and elective courses passed

## SUBJECT CORRELATION AT MEDICAL BIOCHEMISTRY STUDIES

1st SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Introduction to Medical Biochemistry Studies	O	15	1.5	no	no
Mathematics with Statistical Analysis	O	75	7.5	no	no
Cell Biology with Genetics	O	75	7.5	no	no
Physics	O	75	7.5	no	no
General Chemistry with Stoichiometry	O	135	11	no	no

2nd SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Cytology and Histology	O	55	5.5	no	no
Sociology and Health Care System	O	30	2.5	no	no
Analytical Chemistry I	O	75	7.5	no	<b>Passed: General Chemistry with Stoichiometry</b>
Physical Chemistry I	O	75	7.5	no	<b>Passed: General Chemistry with Stoichiometry</b>
Bioethics	O	20	2	no	no

3rd SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Analytical Chemistry II	O	60	6	Done: Analytical Chemistry I	Passed: Analytical Chemistry I
Physical Chemistry II	O	60	6	Done: Physical Chemistry I Passed: Physics	Passed: Physical Chemistry I Passed: Mathematics with Statistical Analysis
Organic Chemistry	O	135	11.5	Passed: General Chemistry with Stoichiometry	no
Biological Chemistry	O	60	6	Passed: Cell Biology with Genetics	Passed: General Chemistry with Stoichiometry

4th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Physiology with Human Anatomy	O	105	9	Passed: Cell Biology with Genetics Passed: Cytology with Histology	no
Microbiology with Parasitology	O	90	8	Passed: Cell Biology with Genetics	no
Biochemistry	O	120	10.5	Done: Biological Chemistry	Passed: Biological Chemistry
Pharmaceutical Chemistry	O	30	3.5	Done: Organic Chemistry	Passed: Organic Chemistry

<b>5th SEMESTER</b>					
<b>Course Title</b>	<b>Status</b>	<b>Total Hours</b>	<b>ECTS</b>	<b>Enrolment prerequisite</b>	<b>Examination prerequisite</b>
General Clinical Biochemistry	O	180	13.5	Done: Biochemistry Done: Physiology with Human Anatomy	Passed: Biochemistry Passed: Physiology with Human Anatomy
Pathophysiology with Pathology	O	90	7.5	Done: Physiology with Human Anatomy Done: Microbiology with Parasitology	Passed: Physiology with Human Anatomy
Haematology I	O	112	9	Done: Physiology with Human Anatomy	Passed: Physiology with Human Anatomy
Physical Biochemistry	O	45	3.5	Passed: Physical Chemistry 2 Done: Biochemistry	Passed: Biochemistry
Biological Membranes and Cell Signalling	I	30	2.5	5th semester enrolled Done: Biochemistry	Passed: Biochemistry
Physical-Chemical Methods in Biomedical Research	I	30	2.5	5th semester enrolled Passed: Physical Chemistry 2	no
Health Ecology	I	15	1.5	5th semester enrolled	no
Selected Methods from Applied Psychology	I	30	2.5	5th semester enrolled	no

Contemporary Biochemical Methods	I	30	2.5	5th semester enrolled <b>Passed: Biological Chemistry</b> <b>Done: Biochemistry</b>	<b>Passed: Biochemistry</b> <b>Passed: Analytical Chemistry 2</b>
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6th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Organs and Organ Systems Clinical Biochemistry I	O	45	4	<b>Done: General Clinical Biochemistry</b> <b>Done: Pathophysiology with Pathology</b>	<b>Passed: General Clinical Biochemistry</b> <b>Passed: Pathophysiology with Pathology</b>
Analytical Biochemistry	O	60	5	<b>Passed: Biochemistry</b> <b>Passed: Analytical Chemistry II</b>	no
Haematology II	O	60	5	<b>Done: Haematology I</b> <b>Done: Pathophysiology with Pathology</b>	<b>Passed: Haematology I</b>
Molecular Biology with Genetic Engineering	O	75	6	<b>Passed: Biochemistry</b>	<b>Passed: Microbiology with Parasitology</b>
Immunology	O	45	4	<b>Done: Pathophysiology with Pathology</b>	no
Professional Practice 1	O	30	2	Done: General Clinical Biochemistry	no
Spectroscopic Identification of Organic Compounds	I	30	2,5	6th semester enrolled <b>Passed: Organic Chemistry</b>	no

Selected methods of Instrumental Analysis	I	30	2,5	6th semester enrolled <b>Passed: Analytical Chemistry 2</b>	no
Membrane Transport of Substances and Information	I	30	2,5	6th semester enrolled <b>Passed: Biochemistry</b> <b>Passed: Physics</b>	no

7th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Pharmacology	O	105	8.5	<b>Passed: Pathophysiology with Pathology</b> <b>Passed: Pharmaceutical Chemistry</b> <b>Done: Molecular Biology with Genetic Engineering</b> <b>Done: Organs and Organ Systems Clinical Biochemistry I</b>	<b>Passed: Microbiology with Parasitology</b>
Organs and Organ Systems Clinical Biochemistry II	O	75	6	<b>Done: Organs and Organ Systems Clinical Biochemistry</b>	<b>Passed: Organs and Organ Systems Clinical Biochemistry I</b>
Molecular Diagnostics	O	60	5	<b>Passed: General Clinical Biochemistry</b> <b>Done: Molecular Biology with Genetic Engineering</b> <b>Done: Haematology II</b>	<b>Passed: Haematology II</b> <b>Passed: Molecular Biology with Genetic Engineering</b>
Coagulation	O	45	4	<b>Done: Haematology II</b> <b>Passed: General Clinical Biochemistry</b>	<b>Passed: Haematology II</b>

Human and Population Genetics	O	30	2.5	Done: Molecular Biology with Genetic Engineering	Passed: Molecular Biology with Genetic Engineering
Immunochemistry	O	30	2.5	Passed: General Clinical Biochemistry Done: Immunology	Passed: Immunology
Neurochemistry	O	15	1.5	Passed: General Clinical Biochemistry	no
Epidemiology Bases with s Microbiological Diagnostics	I	30	2.5	7th semester enrolled Passed: Microbiology with Parasitology	no
Selected Topics from Applied Psychology	I	30	2.5	7th semester enrolled	no
Communication Skills	I	15	1.5	7th semester enrolled	no

### 8th SEMESTER

Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Biochemistry of Nutrition	O	60	5	Passed: Biochemistry	no
Biochemistry of Drugs	O	60	5	Done: Pharmaceutical Chemistry Done: Pharmacology	Passed: Pharmaceutical Chemistry
Special Areas of Clinical Biochemistry	O	60	5	Done: Organs and Organ Systems Clinical Biochemistry II	Passed: Organs and Organ Systems Clinical Biochemistry II



Analytical Toxicology	O	60	5	Passed: Analytical 2	no
Transfusiology with Immunohaematology	O	30	2.5	Done: Organs and Organ Systems Clinical Biochemistry II Passed: Haematology II	Passed: -Organs and Organ Systems Clinical Biochemistry II
Professional Practice II	O	60	3	Finished: Professional Practice I Done: Organs and Organ Systems Clinical Biochemistry II	no
Cell and Cell lines Culture	I	30	2.5	8th semester enrolled Passed: Biochemistry	no
Bioinorganic Chemistry	I	15	1.5	8th semester enrolled Passed: General Clinical Biochemistry	no
Metal-proteins – Structure and Mechanism	I	20	2	8th semester enrolled Passed: Biochemistry	no
Free Radicals and Antioxydants in Health and Disease	I	30	2.5	8th semester enrolled Passed: Biochemistry	no

9th SEMESTER					
Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Biostatistics	O	30	2.5	Passed: Mathematics with Statistical Analysis	no

Integrated Course of Laboratory Diagnostics-Findings Opinion	O	30	2.5	Done: Special Areas of Clinical Biochemistry	Passed: Special Areas of Clinical Biochemistry
Instruments, Methods and Reagents Evaluation	O	30	2.5	Passed: Organs and Organ Systems Clinical Biochemistry II	no
Organization and Managing the Medical-Biochemical Laboratory*	O	45	3.5	Passed: Organs and Organ Systems Clinical Biochemistry II	no
Health Legislation in Laboratory Medicine*	O	15	1.5	9th semester enrolled	no
Diploma Thesis	O	100	10	no	no
Laboratory Endocrinology	I	30	2.5	Done: Special Areas of Clinical Biochemistry	Passed: Special Areas of Clinical Biochemistry
Laboratory Diagnostics with the Patient	I	15	1.5	Done: Special Areas of Clinical Biochemistry	Passed: Special Areas of Clinical Biochemistry
Complex Genetics	I	30	2.5	Passed: Human and Population Genetics	no
Emergency Laboratory Diagnostics	I	30	2.5	Done: Special Areas of Clinical Biochemistry	Passed: Special Areas of Clinical Biochemistry
Rational Laboratory Diagnostics	I	15	1.5	Done: Special Areas of Clinical Biochemistry	Passed: Special Areas of Clinical Biochemistry
Diet Therapy	I	30	2.5	Done: Biochemistry of Nutrition	Passed: Biochemistry of Nutrition
Usage of Radionuclides in Diagnostics	I	15	1,5	Passed: Organs and Organ Systems Clinical Biochemistry II	no

\* theoretical part of Professional Training

**10th SEMESTER**

Course Title	Status	Total hours	ECTS	Enrolment prerequisite	Examination prerequisite
Professional Training	O	750	30	All compulsory courses passed (except Graduation Exam) Professional Practice 2 finished	All compulsory and elective courses passed

## XVI ANNEX II

### GUIDELINES ON CONDUCTING EXAMINATIONS AT THE UNIVERSITY OF ZAGREB FACULTY OF PHARMACY AND BIOCHEMISTRY

#### General Annotation

Knowledge and skills which students acquire in a particular course may be checked by a written and/or oral examination. The way of sitting for an examination (written, oral, seminar papers, etc.) is defined by the Executing Plan for a particular course, which is announced on the web pages of Department/Centre/Autonomous Course for each academic year, and also described in the Information Package of the University of Zagreb Faculty of Pharmacy and Biochemistry. A course teacher is obliged to conduct all types of examinations (written examination, oral examination, etc.) of the students' knowledge at all examination periods, as specified in the Executing Plan. If a teacher, due to justified reasons, is not able to conduct knowledge checking according to the Executing Plan for that course, the examination conducting shall be entrusted to another teacher of the same or similar profession or to the Teaching Committee, in accordance with Article 48 of the Rule Book on Studying at the Graduate Studies at the University of Zagreb Faculty of Pharmacy and Biochemistry, (hereinafter: the Rule Book on Studying at FPB). Furthermore, during knowledge checking organization, the teacher is obliged to comply with the provisions of Articles 41 to 55 of the Rule Book on Studying at FPB. Regardless the form of conducting examinations (written or oral), once started, the exam must not be delayed and/or repeated.

#### Preliminary/Final Exam

The level of knowledge and skills required for attending practical classes in courses, and/or those that students acquired after attending such types of classes can be checked by preliminary /final exams. Such a control can be oral, written, or it may be based on the presentation of practical work. Written forms of knowledge checking are proposed to be conducted, provided that all the knowledge and skills acquired in the course practical classes are equally represented. If checking is based on the presentation of practical work, that form of examining should also evenly comprise representative knowledge and skills acquired in the course. If a teacher opts for this form of assessment, he/she must in advance describe clearly what is expected from a student during the presentation of practical work, and announce those rules on the course website. Repeating the only one exercise as a form of knowledge assessment is not recommended.

#### Written Examination

The written examination as a form of knowledge checking may be conducted as a form of continuous knowledge control (partial exams) during the semester and/or as the final examination. The written examination can also be carried out in electronic form (e-course) where the time available for a student to provide answers needs to be limited. The written knowledge checking may be in the form of offered statements with more correct answers (at least 5 offered answers) and/or statements that need to be mutually matched. In addition, the written examination may involve computational tasks, structures, reaction schemes, etc. In doing so, the scoring should be clearly defined (partially solved task, partially correct structure and/or reaction scheme, etc.). If the

written examination is of an essay type, the questions about the subject matter taught in a particular course should be specific, while general questions should be avoided. Duration of the written examination must not be longer than 120 minutes, and the teacher is obligated to announce the achieved results within 5 working days after the examination period, in accordance with Article 54 of the Rule Book on Studying at FBP. The accomplishment in the written examination is expressed by grades 1 to 5, the grades being defined as follows:

Grade	% of the acquired points in the written examination
insufficient (1)	0-59.9
sufficient (2)	60.0-69.9
good (3)	70.0-79.9
very good (4)	80.0-89.9
excellent (5)	90-100

### **Oral Examination**

The oral examination is open to public. To ensure the objectivity of examining, the teacher should prepare cards with questions which are a relevant cross-section of all the knowledge and skills acquired in particular courses. The questions should be specific, understandable and unambiguous. General questions which cover large units of the teaching subject matter are not recommended. The student starts the oral examination by drawing a card /cards. Replacement of cards during the examination is not allowed. The oral examination must not take more than 30 minutes per student.

### **The Final Grade in a Course**

If the level of knowledge and skills acquired in a course is checked on the basis of several various forms of knowledge control (course exams, oral or written examination), the final grade is formed based on the results accomplished in all the forms of knowledge control. The course teacher is obligated to inform the students on the way of formation the final grade at the beginning of the course classes. It is recommended that accomplishment in the written examination contributes equally to the final grade as the mark in the oral examination, while the proportion of assessing practical part of teaching (exercises and seminars) in the final grade is defined depending on its share in the complete teaching.

### **Examination before the Examination Committee**

If a student has not passed the examination in the same course successfully during the first 3 attempts, the fourth time the examination is taken before the Examination Committee, as required in Article 49 of the Rule Book on Studying at FBP. After passing the written examination, the oral exam is organized. At the examination before the Examination Committee, the written exam cannot be eliminatory, i.e., if the student did not pass the written examination, the oral examination is organized. The oral examination is conducted in accordance with the above mentioned guidelines on conducting the oral examination. All the members of the Examination Committee are required to monitor the process of the examination carefully. The result of the examination before the Examination Committee is also expressed by grades 1 to 5.

### **The Right to Appeal against the Grade**

If a student has an objection to the process of the examination itself (written or oral) and thinks that the process was not fair, he/she may, in accordance with Article 55 of the Rule Book on Studying at FBP, set a reasoned request in written form to repeat the examination before the Examination Committee, within 24 hours after the end of the examination, or after announcing the results of the written examination. The examinations before the Examination Committee are exempt from this rule, as defined in Article 49 of the Rule Book on Studying at FBP. The request is submitted to the Student Office, and the Dean, or, in his/her absence, the Vice Dean for Academic Affairs considers the appeal, and if he/she decides the appeal to be justified, he/she appoints the Examination Committee before which the examination shall be held, in accordance with the provisions of Article 49 of the Rule Book on Studying at FBP. The repeated examination must be held not later than 72 hours after the examination which the student submitted a complaint against.

### **The Right to the Grade Refusal**

If the student does not want to accept the grade achieved in the exam, and there is no objection to the process and fairness of conducting the examination, then he/she may refuse the given grade and ask the course teacher for sitting for the examination at the next examination period. The student must submit a filled in and signed form for the grade refusal to the course teacher within 24 hours since he/she was informed of the grade, and before entering the grade in the Student Book and ending the examination period on ISHE. In that case, the teacher enters the note "the student refused the grade", and the student thereby used the right of one examination taking attempt (0 is entered in ISHE system). The student is required to re-sit for the examination, wherein he can get a lower grade than the rejected one, including negative.

## **DIRECTIVES ABOUT MAKING THE THESIS**

Contents:

I GENERAL ANNOTATION

II ADMINISTRATIVE PROCEDURE

III DIRECTIVES HOW TO MAKE THE THESIS

IV DIRECTIVES HOW TO WRITE THE THESIS

V DIRECTIVES ABOUT THE THESIS LAYOUT

VI DIRECTIVES HOW TO PRESENT THE THESIS BEFORE THE COMMITTEE

VII ADDENDA: The Title Page, Temeljna dokumentacijska kartica/Basic Documentation Card



## **I GENERAL ANNOTATION**

The Thesis is a student's autonomous paper, written under supervision of a mentor, in which the student elaborates certain scientific issues in agreement with the mentor. By making and defending the Thesis, the student confirms his/her competences, i.e. shows that he/she is capable of carrying out and rounding autonomously off certain given research as part of a scientific process.

### **Conducting the Thesis**

The Thesis Mentor is as a rule a teacher or an associate at the University of Zagreb Faculty of Pharmacy and Biochemistry (FBF) with a scientific research doctorate. He/she may engage assistants or junior research assistants within his/her Department for help in experimental work.

The mentor may also refer the graduate to another institution (faculty, institute or research laboratory, or industry) on condition that the co-mentor holds a scientific degree of MSc. minimum and that the theme of the Thesis is within the framework of scientific and professional interest of the Chief Mentor at FBF.

The Thesis made in this way must completely (style, language, layout...) comply with a standard thesis made at FBF.

### **Committee for Defending the Thesis (3 members) consists of:**

- a) the first member of the committee – Chief Mentor at FBF,
- b) the second member of the committee – a teacher with a scientific research doctorate from another FBF Department,
- c) the third member of the committee - a teacher at FBF with a scientific research doctorate or a co-mentor from another institution, on condition that he/she holds a scientific degree of Doctor of Science (D.Sc.) minimum),
- d) the third member of the committee may exceptionally be an associate in the experimental part of work at FBF, on condition that he/she holds a scientific degree of MSc. minimum.

## **II ADMINISTRATIVE PROCEDURE**

In the Student Office the student gets a form about making the thesis which is to be signed by the mentor of the thesis. The student then returns the form to the Student Office to be signed by Head of the Committee for Theses at FBF.

After the thesis is finished and written, a procedure of defending is activated, comprising the following phases:

The Student brings an unbound copy of the thesis to the Student Office. From the Student Office the student is sent with that copy of the thesis to a member of the Committee for the Theses, who checks whether the thesis has been written in accordance with the Directives how to make the thesis, and fills in the form for defending the thesis with the data on the Committee members, the date and place of defending, and then signs it.

The student brings back the form for defending the thesis and the unbound copy of the thesis to the Student Office, where, based on that form, a Document on defending the thesis is issued and delivered to all members of the Committee for the Thesis Defending. The student then binds the thesis in 3 copies (1 paper-backed binding and 2 hard-backed bindings) and delivers the bound copies to the members of the Committee for the Thesis Defending. Before defending, in the Student Office the student receives a minutes form which is to be brought (along with the Student Book) to the Thesis Defending

After defending the thesis, the student returns both the Student Book and the minutes, signed by all the Committee for the Thesis Defending members, to the Student Office. The student leaves one copy of the thesis to the mentor and delivers the paper-backed bound copy of the thesis to the Student Office.

### **III DIRECTIVES HOW TO MAKE THE THESIS**

#### **Choosing the Theme and Preparation for Work**

The mentor, in agreement with the graduate student, determines the work programme; goals to achieve by the work must be clear to the graduate.

After getting acquainted with the theme of research, the graduate starts reviewing and studying the literature, and by doing so he/she is getting familiarized with previous relevant research, with the way of explaining defined facts and with coming to conclusions. When the preliminary searching through the literature is over, the found original works selected and studied with the mentor's help, elaboration of the task of the thesis begins as well as setting the working hypothesis or the assumption from which the graduate starts and which is to be proved.

#### **Experiment Planning and Performing**

After the literature has been studied, and the working hypothesis has been set, the organization of research, i.e. planning the sequence of carrying out experiments follows. Experimental work requires careful and devoted work while preparing materials, while applying various working methods and using appropriate apparatuses. While carrying out experiments, the student must keep a work log-book.

## IV DIRECTIVES HOW TO WRITE THE THESIS (EXPERIMENTAL AND THEORETICAL)

The Thesis should be printed on the paper of A4 format, one-sidedly, with 1.5 cm spacing and margins from the top and the bottom as well as from the left and right side of 2.5cm. Font: Times New Roman, size 12. The pages should be marked by numbers at the bottom right corner. The Diploma Thesis (experimental and theoretical) consists of the following chapters:

- 1 INTRODUCTION
- 2 EXPLANATION OF THE THEME
- 3 MATERIALS AND METHODS
- 4 RESULTS AND DISSERTATION
- 5 CONCLUSIONS
- 6 LITERATURES
- 7 SUMMARIES
- 8 ANNEXES
- 9 TEMELJNA DOKUMENTACIJSKA KARTICA/BASIC DOCUMENTATION CARD

Diploma Thesis should be written in the 3<sup>rd</sup> person.

**1 Introduction** – a demonstration of the nature and meaning of the chosen field of research. Part of the introduction presents a literature review in which the previous understandings about the chosen theme are described. It contains an overview of relevant works published by then as well as some data from books and textbooks. The introduction may be divided in chapters and subheadings, and the number of pages should not exceed one third of the diploma thesis.

**2 Explanation of the Theme** – explain shortly the purpose and the aim of the work as well as the used methods.

**3 Materials and Methods** – In this chapter the student introduces all details of the used materials and working methods, so that on the basis of it all the described proceedings could be authentically repeated. The accurate name and type as well as the manufacturer should be specified for the used equipment. If it is a well-known method and/or applied standard, it is necessary to state the adequate literary quotation. In the theoretical diploma thesis the way of studying the issues of the thesis is described (e.g. searching bibliographical bases, using programme packages for interaction research, etc.).

**4 Results and Dissertation** –It is one of the most essential chapters of the diploma thesis because it contains the results of the student's own research. Only the main and representative results are shown. The results of a greater number of repeated measuring should be elaborated by the most appropriate statistical method and shown by means of tables or pictures. It is important that the shown data as well as the table descriptions (above the table), and picture descriptions (below the picture) are accurate and complete so that they are understandable even without reading the rest of the text. The same results are not shown both by table and by picture. Comments should be left for the dissertation. Before writing the dissertation the achieved results should be thoroughly analyzed and compared with the previous data from literature. In

such a way the value of the graduate's own results is evaluated as well as his/her contribution to scientific knowledge. In this part it is required to comment, connect logically, emphasize advantages and drawbacks of the applied method, compare the results, define vague results, estimate how the achieved results and their explanation correspond to the previous data from literature, and clearly indicate theoretical and practical consequences of the graduate's own results. In the end, by connecting all the parts of the diploma thesis, it is necessary to briefly and objectively emphasize the contribution of the graduate's own research.

The chapter Results and Dissertation may, if necessary, be separated in two chapters (Results, Dissertation). In a theoretical diploma thesis this chapter describes, comments, compares, and estimates the value of recent knowledge, relevant to the thesis issues.

**5 Conclusions** – The chapter in which the most important results and their significance are briefly stated. For the purpose of a good layout, conclusions may be shown in numbered segments, on at most two pages of the text.

**6 Literatures** – The chapter in which all the literature statements having been quoted in the whole text of the diploma thesis are listed. Literature statements are written according to Harvard way of quoting works or chapters of a book, as illustrated by the following examples:

a) Quoting from a work in a magazine:

Halpern SD, Ubel PA, Caplan AL. Solid-organ transplantation in HIV- infected patients. *N Engl J Med*, 2002, 347, 284-287.

b) Quoting from a book:

Filipović I, Lipanović S. General and Inorganic Chemistry, Zagreb, Školska knjiga, 1991, page 100.

c) Quoting from a chapter in a book:

Meltzer PS, Kalliomäki A, Trent JM. Chromosome Alterations in Human Solid Tumours, U: The genetic basis of human cancer. Vogelstein B, Kinzler UW, editors, New York, Mc Graw-Hill, 2002, pages 93-113.

d) Example for a website:

Raw Materials and Ingredients of Energy Bars, 2002, <http://www.vitamini.hr>, accessed on 21 December 2006

e) Example for a rule book published in an official paper:

Rule Book on Quantities of Pesticides, Toxins, Myco-toxins, Metals and Similar Substances to Histamines, which can be Present in Foods as well as on Other Conditions Concerning Health Validity of Foods and Things for General Use, 1994, Zagreb, Official Gazette, No. 46 (NN/46/94).

f) Example for a patent:

Strommer PK and Beck CI, 1973, U.S. Patent: 3,754,926.

g) Example for a work in a conference collection of papers:

Van Lovaren H, Vos JG. Immune Suppression by Food Contaminants, EURO FOOD TOX III, Zürich.1991, 39-46.

In the chapter Literatures quotations are listed in the alphabetical order according to the surname of the first author.

In all the other chapters, literature quotations are referred to as follows:

- a) If there is one author: (Halpern, 1985),
- b) If there are two authors: (Halpern and Ubel, 1985),
- c) If there are more than two authors: (Halpern et al., 1985),
- d) If the same author appears more times in the same year, a,b,c, etc. is added next to the year.; (Halpern, 1985b; Halpern and Ubel, 1985c; Halpern et al., 1985a),
- e) A book is referred to according to the first authors (Meltzer et al., 2002) or editors (Vogelstein et al., edit., 2002),
- f) A website is referred to as URL original web pages (www.pharma.hr),
- g) A patent is referred to according to the first author (Strommer, 1973.),
- h) More literature quotations are separated by a semi-colon between themselves, and they are listed according to the year of being published (Meltzer et al., 2002; Halpern et al., 1985; Strommer, 1973).

**7 Sažetak/Summary** – It needs to be written both in the Croatian and English language.

## **8 Addenda**

**9 Temeljna dokumentacijska kartica/Basic documentation card** – It needs to be written both in the Croatian and English language.

## V INSTRUCTIONS ABOUT THE THESIS LAYOUT

### Part (unpaged):

Title Page with the following text (see Chapter VII Addenda):

Name and Surname	(36 mm from the upper edge)
Title of the Thesis	(82 mm from the upper edge)
The Thesis	(147 mm from the upper edge)
Submitted to the University of Zagreb	
To the Faculty of Pharmacy and Biochemistry	(165 mm from the upper edge)
Zagreb, the year	(267 mm from the upper edge)

Page with data:

This Diploma Thesis is submitted by NAME AND SURNAME, a student at the Study of PHARMACY/MEDICAL BIOCHEMISTRY, at the course (the course title) at the University of Zagreb Faculty of Pharmacy and Biochemistry. The Diploma Thesis was made at (title of the Department or another institution where the Thesis was made) under expert guidance of (title and name of the mentor) and co-guidance of (title and name of the co-mentor - if there is a co-mentor).

Acknowledgement (in the same page - below)

Contents

### Part (paged by Arabic numbers):

Introduction  
Explanation of the Theme  
Materials and Methods  
Results and Dissertation  
Conclusions  
Literature  
Sažetak/Summary

Before binding the Diploma Thesis is brought to the Student Office, and after the approval of the authorized persons, that is, the Committee for Diploma Theses, it is bound in at least 3 copies (2 hard and one paper-backed binding).

Title on the cover (binding) (*placed in the middle of the page*):

University of Zagreb	
Faculty of Pharmacy and Biochemistry	(30 mm from the upper edge)
Diploma Thesis	(130 mm from the upper edge)
Name and Surname	(210 mm from the upper edge)
Zagreb, year	(265 mm from the upper edge)

Title on the cover (binding) (*placed on the side part*):

Name and surname                      Diploma Thesis                      Year

Temeljna dokumentacijska kartica/Basic documentation card (should be inserted in the Thesis just before binding; it contains the Thesis summary and basic bibliographical and other data about the Thesis) both in Croatian and in the English language (See the example in Chapter VII Addenda).

The form for the Title Page and Basic Documentation Card both in Croatian and English can be downloaded from the address:

<http://www.pharma.hr/download.aspx?file=/Upload/BBF-Temeljna-dokumentacijska-kartica.dot>



## **VI DIRECTIVES HOW TO PRESENT THE THESIS BEFORE THE COMMITTEE**

For defending the Thesis it is necessary to prepare a presentation (e.g. Power Point Presentation) lasting for 20-25 minutes, followed afterwards by questions asked by the Committee for Defending members, lasting for about 15 minutes. After the presentation and answering the asked questions, the members of the Committee make a decision on the result of defending the thesis, and then they fill in and sign the minutes as well as the Student Book.

**Name Surname**

**The Thesis Title**

# **THE THESIS**

Submitted to the University of Zagreb Faculty of Pharmacy and Biochemistry

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### NASLOV DIPLOMSKOG RADA

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### SAŽETAK

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## Basic documentation card

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Diploma Thesis

### THE THESIS TITLE

**Name and Surname**

### SUMMARY

The thesis is stored at the Central Library of the University of Zagreb Faculty of Pharmacy and Biochemistry.

The Thesis includes: XX pages, XX graphical depictions, XX tables and XX literature references. The original is in the Croatian language.

Key words: xxxxxxxxxxxx

Mentor: **Name and Surname, D.Sc.** /Senior Assistant/Assistant Professor/ Associate Professor/ Professor at the University of Zagreb Faculty of Pharmacy and Biochemistry

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The thesis was accepted: May 2010

Pursuant to Article 21 of the Statute of the University of Zagreb, the Senate of the University of Zagreb at its 16th session in the 344th academic year (2012/2013), held on 17 September 2013, issued the

## **Rule Book on Awarding ECTS Credits for Extracurricular Activities at the University of Zagreb**

### **Rule Book Contents Article 1**

By the Rule Book on Awarding ECTS credits for Extracurricular Activities, ( hereinafter: the Rule Book), the basic principles, criteria, and procedure of awarding ECTS credits for the students' activities achieved off classes, described by the executing plan and programme of the University of Zagreb, (hereinafter: the University) are regulated.

### **Types of Activities Article 2**

1 ECTS credits can be awarded to an extracurricular activity of the students at the University of Zagreb such as student practice or an art activity which is not regulated by the teaching plan and programme, student competitions, active students' participation in a scientific, professional or art conference, workshop, seminar or another activity to which ECTS credits were not awarded previously within the study programmes of the University of Zagreb or any other Croatian or international institutions.

2 The extracurricular activity under section 1 will be awarded ECTS credits if it meets the following preconditions:

- the extracurricular activity is of university level, i.e. it is intended for students and the results of learning acquired on the basis of the activity are such that they belong to university levels;
- the activity leader as a rule is a person of a science teaching or art teaching profession and employed at the University of Zagreb. Exceptionally, the leader of an extracurricular activity in the art field may be a distinguished artist, not being chosen in the teaching profession;
- the student to whom ECTS credits are awarded participated actively in the activity, which resulted in the learning results of university level;
- the extracurricular activity includes checking the associated results of learning.

### **Calculating of ECTS Credits Article 3**

1 One ECTS credit represents the student's workload of 25 to 30 hours (1 hour is 60 minutes) of the student's active work.

2 ECTS credits are calculated to one decimal and are mathematically rounded to half of an ECTS credit.

3 Activities which may be awarded less than half of 1 ECTS credit shall not be taken into consideration.

4 This Rule Book is not applied to the activities for which the calculated number of ECTS credits would be higher than 10 ECTS credits.

## **Proceedings when Awarding ECTS Credits**

### **Article 4**

- 1 ECTS credits for an extracurricular activity may be awarded on request of the activity leader, who is a person in a science teaching or art teaching profession and employed at the University of Zagreb, and who submits the request before performing the extracurricular activity (prior awarding) or after performing the extracurricular activity (subsequent awarding). Along with the request, the Dean's approval should be submitted.
- 2 ECTS credits for an extracurricular activity may also be awarded on the motion of a student participating in the activity (awarding on the motion of the student).
- 3 Requests and proposals are submitted on the forms, issued on the website by the University of Zagreb.
- 4 The Rector or the authorized Vice-Rector decides on awarding ECTS credits on the motion of the Work Group for awarding ECTS credits for extracurricular activities.

### **Prior Awarding ECTS Credits on Request of the Activity Leader**

#### **Article 5**

- 1 The request for prior awarding ECTS credits to an extracurricular activity is submitted by the activity leader.
- 2 Detailed information on the planned programme, the learning results and the way of their checking, as well as the on the planned participants in the activity is enclosed with the request, the information being such that it can be determined whether the preconditions for prior awarding ECTS credits are fulfilled.

### **Awarding ECTS Credits after Finishing the Activity**

#### **Article 6**

- 1 The request for subsequent awarding ECTS credits to an extracurricular activity is submitted by the activity leader for all the participating students who fulfil the preconditions under Article 2.
- 2 Detailed information on the executed programme, the learning results and the way of their checking as well as on all the participants in the activity is enclosed with the request, and in particular, it is specified who of the participating students during the extracurricular activity fulfilled the preconditions from Article 2 for awarding ECTS credits.
- 3 The request from this article is to be submitted within three months from the day of the extracurricular activity being finished.

### **Validity of Prior and Subsequent Awarding ECTS Credits**

#### **Article 7**

- 1 Decisions on prior and subsequent awarding ECTS credits are valid for four years, and in that period the extracurricular activity may be performed again in accordance with the enclosed work plan.
- 2 After each performed extracurricular activity which was awarded ECTS credits, the activity leader is authorized to issue written certificates on participating in the activity with awarded ECTS credits to all the participants in the activity who fulfil the preconditions of active participating with the checked learning results.
- 3 After each executed extracurricular activity which was awarded ECTS credits, the activity leader is obligated to submit a report to the University within three months from the day of the activity being finished. The report must contain the data on the performed activity, on the participants and the form of their participation, on the learning outcome checking and the data on the issued certificates of participating with the awarded ECTS credits.

4 If the report is not submitted, or if the Rector or the authorized Vice-Rector gives a written opinion with negative assessment of the submitted report, on the basis of the Rector's or the authorized Vice-Rector's decision, the extracurricular activity loses the awarded ECTS credits.

#### **Awarding ECTS Credits on the Motion of the Student Article 8**

1 The motion for awarding ECTS credits to an extracurricular activity can be submitted individually for his/her sake by the student who participated in the activity.

2 The student attaches to the motion a written report about his/her performed activities (including the actually spent time and the achieved results) and/or a material trace (e.g. a prototype, a photograph, a video or audio recording, etc.), and if required, some additional proof which indicate the learning results and the justifiability of awarding the credits.

3 The motion from this article is to be submitted within three months since the day of the extracurricular activity being finished.

#### **Recognition of ECTS Credits within the Study Programmes Article 9**

1 ECTS credits being awarded to an extracurricular activity by the University may be recognized within the study programme in which the student has been enrolled by the activity acting as a replacement for a certain teaching subject matter (e.g. elective course, seminar, practice, art teaching production, etc.) on condition that regular teaching process, whose execution requires team work, is not disturbed by doing so. The provisions of the Rule Book on International Mobility of the University of Zagreb, which regulate international and other types of mobility, are applied to the authority, procedure and criteria for recognizing ECTS credits within the study programme.

2 Provided that the awarded ECTS credits to a student are not recognized within the study programme, which the student has been enrolled in, the student is entitled to have the awarded ECTS credits entered in the diploma supplement.

#### **Transitional and Final Provisions Article 10**

This Rule Book enters into force eight (8) days from its announcement on the University web pages.

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Zagreb, 25 September 2013

Rector

Prof. Aleksa Bjeliš, D.Sc.