



UNIVERSITY OF SIENA
DEPARTMENT OF BIOTECHNOLOGY, CHEMISTRY AND PHARMACY
EDUCATIONAL REGULATIONS OF THE SECOND CYCLE DEGREE COURSE – MASTER'S DEGREE
IN CHEMISTRY

Master Classes (second cycle) degrees in "**Chemical sciences**" (Class LM - 54)
(Issued with Regional Decree No 1061/2015 dated 24.07.2015 published on the University online registry on 24.07.2015 and published in the Supplement to the O.B. no 118)
effective from the academic year 2015/2016

Art. 1 – Definitions

1. For the purposes of these Regulations, the following are to be understood:

- as University, the University of Siena;
- as MDC, the Master's Degree Programme in Chemistry (Class LM-54 - Chemical Sciences), lasting two years;
- as ECTS, university credits
- as SDS, the Scientific Disciplinary Sector;
- as SP-SARC, the study programme - single annual record card (annex 1)

Art. 2 – Establishment

1. The Master Degree Course in Chemistry has been established at the University of Siena, belonging to the master degrees in Chemical Sciences (Class LM-54) in compliance with current legislation (M. Decree no 270/2004 and subsequent implementing decrees).
2. The legal title of the MDC Course is attributed to the Department of Biotechnology, Chemistry and Pharmacy.
3. The MDC Course has a normal duration of two years and aims at providing students with an advanced level of education for carrying out highly qualified activities in the main Chemistry areas (Physical Chemistry, Inorganic Chemistry, Organic Chemistry, Chemistry of the Environment, Biochemistry).
4. When defining the range of courses, the Department Board of Biotechnology, Chemistry and Pharmacy, in recognition of the proposal by the Education Committee, may annually deliberate the local programmed admission to the study course pursuant to Law 264/1999 and subsequent amendments and additions, according to the procedure provided for by the University's Educational Regulations.

5. In order to obtain the MDC, it is necessary to have acquired 120 ECTS envisaged by the study plan.

6. The study plan of the MDC Course includes 12 exams for core, similar or integrative subjects. The educational activities of the MDC Course, as approved by the competent University and ministerial bodies, concern the following typologies: core (B), similar or integrative (C), chosen by the student, for the final exam, for professional training and for other knowledge useful for accessing the world of work.

Art. 3 - Specific educational objectives.

1. The specific educational objectives of the MDC Course, in relation to the education of graduates with a solid scientific culture in the chemical field as well as a knowledge of the main applications in the fields of environmental sustainability sciences, are reported in the A4.a Section of the SP-SARC, study programme - single annual record card.

Art. 4 - Expected learning outcomes

1. The knowledge, understanding and application skills, as well as the skills that the graduates of the MDC Course will have acquired, are reported in the A4.b, A4.c Sections of the SP-SARC, study programme - single annual record card

Art. 5 - Employment and professional opportunities

1. The achievement of the qualification of Master's Degree in Chemistry leads to the employment opportunities indicated in the A2.a Section of the SP-SARC, study programme - single annual record card.

Art. 6 - Knowledge required for admission

1. In addition to the curricula requirements indicated in article 7, students wishing to enrol in the MDC course must also possess an adequate preparation in basic chemistry subjects such as mathematics, physics, chemistry and computer science.

Art. 7 - Curricula requirements for admission

1. The following requirements are necessary in order to be admitted to the MDC Course;
- To have gained at least 90 ECTS in the SDSs from CHIM/01 to CHIM/12 during their educational path. Graduates of the three-year degree courses of class L-27 (M. Decree no 509/1999) and class 21 (M. Decree no 270/2004) of the University are not subject to verification.
 - Knowledge of English at a level of at least B2/2, as defined by the common European framework of reference for languages issued by the Council of Europe, is also required. The University Language Centre will ascertain knowledge of the required level of English for all students not in possession of a certificate. Acquisition of the B2/2 level must take place before 28th February of the first year of the course.
 - The admission of international students will be decided by the EC or by its delegate through an analysis of the curriculum, possibly integrated by an interview, including via computer.

Art. 8 – Education Committee

1. The functions and jurisdiction of the Education Committee (EC) of the MDC Course are specified in the University's Educational Regulations.

Art. 9 - Evaluation of the quality of education

1. The organisational structure for the quality evaluation of education is reported in the D1 Section of the SP-SARC, study programme - single annual record card.

Art. 10 - Guidance and mentoring

1. The guidance and mentoring activities for the MDC Course are coordinated by the Education Committee as reported in the B5 Section of the SP-SARC, study programme - single annual record card.

Art. 11 – Recognition of ECTS.

1. The education committee is responsible for recognising ECTSs obtained in other study courses in accordance with the University's Educational Regulations.

2. The criteria used by the Education Committee for evaluating the student's previous career, extrapolated from the documentation sent by the educational facility of origin, consist of:

- SDS correspondence;
- course programmes followed;
- dates of the exams taken.

An additional interview will also be scheduled with the reference teachers in case of ECTS awarded:

- in courses for which there is no SDS correspondence, but similar contents;
- following exams taken more than five academic years previously in respect of the new enrolment date, in order to evaluate the obsolescence of the student's knowledge.

3. In cases of course transfers or transitions, the EC, once it has assessed the actual achievement of the

specific educational objectives of the MDC and in relation to the number of recognised ECTS, will decide which

year the students must be enrolled in. Should the course transfer or transition

occur from a course of study belonging to the same class as the master degrees, the share of recognised SDS credits cannot be less than 50% of those already acquired within the same sector.

Art. 12 - International student mobility

1. The MDC Course participates in the University student mobility programmes (e.g.: LLP/Erasmus and Erasmus +) and in the non-European programmes, according to the procedures envisaged by the B5 Section of the SP-SARC, study programme - single annual record card.

Art. 13 - Plan of educational activities

1. The study plan of the MDC Course is reported in the B1.a Section of the SP-SARC, study programme - single annual record card.

2. For courses with the same name but a different progressive number, the exams must be taken according to the increasing number.

3. Integrated Courses divided into no more than two modules may be established in order to increase coordination between the contents and to decrease official advancement verification exams.

Art. 14 - Timetable of individual educational activities and study

1. The definition of the educational typologies and the related assigned ECTS, differentiated according to the

volume of work requested by the student, are indicated in the following table:

Activities	Definition	Hours/ECTS Assisted teaching
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Classroom lessons	Lesson and autonomous processing of the contents received	8
Practical assignments	Technical assignments in order to clarify the contents of the various lessons. A final report may be scheduled.	12
Single laboratory practice exercise	Activities that envisage, after a theoretical introduction, the student's interaction with scientific equipment	16
Further training activities (art. 10, paragraph 5, letter d, M. Decree 270/04)	Course on health and safety in the workplace	16
Dissertation or internship	Research or in-depth research activity carried out under the supervision of the dissertation supervisor or an external tutor	25

Art. 15 - Exams and advancement verification

1. The advancement verification of core, similar and integrative subjects takes place based on a written and/or oral examination, with marks in thirtieths and possible honours.
2. The provisions of the RDA apply as concerns the number of exam sessions, the number of second calls provided for in each session and the composition of the Examination Boards.

Art. 16 - Activities chosen by the student

1. The ECTS which may be freely chosen by the student can be acquired through all the courses or modules of the University degree courses, provided they are judged congruent with the specific educational objectives of the MDC Course and include a final examination with marks in thirtieths. The EC is responsible for the consistency assessment.

Art. 17 - Individual Study Plans

1. Students must submit their individual study plan, where they must specify the envisaged options and choices, before 28th February of the first year of the MDC course. The optional courses can be chosen by the student among those on the list of active courses (type C).

Art. 18 - Course of study attendance

1. Attendance is mandatory for at least 75% of the total hours envisaged in all courses involving laboratory activities.

Art. 19 - Final exam and obtaining the Master Degree

1. The final exam must verify that the Master Degree student has acquired the ability to apply his/her own knowledge, autonomy of judgment and communication skills in accordance with the procedures laid down in the A5 Section of the SP-SARC, study programme - single annual record card.

2. The Master Degree in Chemistry dissertation must contain the experimental and/or theoretical work developed by the student during a period of internship of at least 6 months, in a research laboratory of the competent Departments and under the guidance of a supervisor. Following the submission of the application for the assignment of the dissertation, the Education Committee will appoint two co-examiners.

3. Once the student has acquired at least 36 ECTS, he/she can submit, on a specific form or electronic medium (if available), the application for the assignment of the dissertation, also countersigned for acceptance by the supervising Professor.

4. In order to be admitted to sit the Master Exam, the Student must:

a) have followed all the Courses and have passed the related examinations or the other forms of advancement verification provided for;

b) have been awarded at least 90 ECTS;

c) have submitted a copy of the dissertation to the Student and Education Office at least 7 working days before the degree session.

Art. 20 - Evaluation of the final examination

1. The methods and criteria for the final evaluation take into account the entire career of the student within the Study Plan, the times and obtainment methods of the ECTS, the previous educational activities and the final examination as well as all relevant elements.

In particular, the following parameters contribute to determining the MDC mark, expressed in one hundred and tenths (with possible honours):

a) the rounded weighted average of the marks obtained in the exams included in the study plan, including those chosen by the student which envisage a final examination with a mark expressed in thirtieths;

b) the average of the points awarded by the Examination Board for discussing the dissertation, up to a maximum of ten.

2. Honours can be awarded only unanimously by the members of the Examination Board and only if the weighted average of the ECTS of the exams passed in the curricular subjects with a mark expressed in thirtieths, including the university courses chosen by the student, is not lower than 104/110.

3. The final dissertation referred to in paragraphs 1 and 2 must be filed in electronic form at the University Library System.

Art. 21 - Calendar of educational activities

1. The calendar of the educational activity is reported in the B2.a Section of the SP-SARC, study programme - single annual record card.

Art. 22 - Transparency

1. Any further information concerning the characteristics of the MDC Course (Class LM-54), as well as the services to students and other administrative aspects, can be consulted on the University website. In order to ensure a proper dissemination of all acts, all the procedures carried out pursuant to these Regulations and the decisions taken by the EC and the Department Board are public and may be consulted, upon request by those entitled, according to the procedures contained in the specific University Regulations.

Art. 23 - Approval and amendment of the Educational Regulations

1. The Educational Regulations of the MDC Course are approved by the Board of the Department of Biotechnology, Chemistry and Pharmacy, on a proposal by the EC, and approved by the Academic Senate, subject to the opinion of the Board of Directors, as provided for by the UER.
2. The modifications of the SP-SARC, study programme - single annual record card, follow the specifically envisaged procedure.

Art. 24 - Reference professors for the course of studies and research activities

1. The list of reference teachers is reported in the information sheet published in the SP-SARC, study programme - single annual record card

Art. 25 – Transitional and final provisions

1. These Educational Regulations come into force for the academic year 2015-2016 and apply to all students enrolled in the Study Programme in the same year.
2. For any matters not provided for by these Regulations, the provisions of the Articles of Association, of the UER and of the specific legislation in force shall apply.
3. Recognition of the ECTS awarded to Students enrolled in the pre-existing Specialisation Degree Courses (class 62/s) of the previous system (MD 509/1999) and in the Master Degree Courses (class LM-54) of the previous system (MD 270 / 2004) who opt for the transfer or transition to the MDC Course is decided by the Education Committee.