

ASSOCIATION FOR EVALUATION AND ACCREDITATION OF PHARMACY EDUCATION PROGRAMS

NATIONAL PHARMACEUTICAL EDUCATION PROGRAM ACCREDITATION STANDARDS OF TURKEY

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INTRODUCTION

These standards aim to provide the quality assurance of the pharmacy education program at the undergraduate level, which consists of at least 10 semesters or 300 ECTS credits, and to support the continuous improvement of this program and to make the program meet the international standards. The institution applying for assessment of the pharmacy program is obliged to prove that the program meets the standards in this document.

GOALS AND OBJECTIVES

The faculty must define its mission and vision, and its goals and objectives by considering the strategic plans of the university.

Standard 1. Corporate Goals and Objectives

The corporate goals of the faculty and its objectives determined for achieving the corporate goals;

- **S.1.1**. Must be in compliance with its mission and vision.
- **S.1.2.** must include education, research and development, production and service areas.
- **S.1.3.** Must be arranged to train pharmacists who can take effective duties, powers and responsibilities in all areas of the profession.
- **S.1.4.** Must be determined by considering the new developments in the profession (occupational applications such as Pharmaceutical Care).
- **S.1.5.** Must be defined with participation of all (internal-external) stakeholders.
- **S.1.6.** Must be shared and published with/to all stakeholders and the community.
- **S.1.7.** The targets must be reviewed and updated annually by internal-external stakeholders.

Standard 2. Goals and Objectives of the Educational Program

Goals and Objectives of the Educational Program;

- **S.2.1.** Must be defined in compliance with Turkey Higher Education Qualifications Framework (TYYÇ) and National Core Education Program (ÇEP) and in such manner to determine the qualifications/competencies/outcomes for the pharmacists to fulfill their roles and responsibilities in the community.
- **S.2.2.** The program outcome must cover all components of knowledge, skills and behavior needed to achieve educational objectives and must be defined to include the outcomes of ECZAKDER given in Table 2.1.
- **S.2.3.** Must be defined with participation of all stakeholders

Table 2.1 ECZAKDER's Outcomes

I	Sufficient knowledge on product and patient-oriented, professional and ethical practices; ability to apply this knowledge in these areas for solving the problems of pharmacy.
	ability to apply this knowledge in these areas for solving the problems of pharmacy.
II	Ability to design, conduct experiments, field work, data collection, analyze, interpret and archive the results related to pharmacy.
III	Ability to understand and interpret a process, product, material or devices, and to solve the related problems with current methods.
IV	Ability to apply individual management skills, working environment, management of human and financial resources and quality assurance system.
V	Ability to take the lead, to take part in interdisciplinary studies effectively and to make decisions.
VI	Ability to select, develop and effectively use current technologies required for pharmaceutical applications.
VII	Ability to communicate effectively in oral and written Turkish, and to use at least one foreign language effectively in written and oral communication.
VIII	The awareness of the necessity of lifelong learning, ability to access information, to follow developments in science and technology and to renew continuously.
IX	To be aware of the universal and social impacts of pharmacy practices (health, environment, etc.) and their legal consequences.
X	Awareness of professional ethics and responsibility.

Standard 3. Performance Assessment

The faculty must identify the performance indicators to determine to what extent it has achieved its objectives in education, research and development, production and service.

- **S.3.1.** The performance indicators must be measured at least once a year.
- **S.3.2.** Based on the results of these measurements, the objectives must be reviewed every year and used to improve the program.
- **S.3.3.** The assessment results must be shared with faculty management, instructors, students and other relevant stakeholders.

ORGANIZATION AND MANAGEMENT

Standard 4. Relations Between Faculty and University

The position of the faculty within the university must be determined.

- **S.4.1.** The faculty must have all kinds of support of the university in education, research and implementation activities (financial and physical resources, personnel, management and administrative work areas, library, printing services, research support, maintenance and repair services, communication and information technology, alumni and related institutions, etc.).
- **S.4.2.** The faculty must have the necessary autonomy for identification and implementation of

- the undergraduate education program.
- **S.4.3.** The faculty members must take part in university's administration by attending to boards and committees.

Standard 5. Relations between Faculty and Health Service Organizations

The faculty's relations with formal and private institutions/organizations providing pharmacy services and health services must be mentioned.

- **S.5.1.** The health institutions which are due to the university must support and secure implementation of patient-centered care practices as well as education, research and development, production and service activities of the faculty of pharmacy. The Faculty of Pharmacy must also provide support to the health institutions when necessary.
- **S.5.2.** Necessary administrative arrangements must be made in order to use the facilities of health services and other institutions providing education.

Standard 6. Faculty Organization and Management

The faculty's organization and management structure must fulfill the necessary academic and administrative tasks.

- **S.6.1.** The Dean must have the necessary education, qualifications and experience to take the responsibility of managing the pharmacy undergraduate education program and all other professional activities.
- **S.6.2.** The duties and responsibilities of the Dean, Vice Dean and Assistants must be defined.
- **S.6.3.** The Dean must represent and defend the faculty as required in the administration of the university.
- **S.6.4.** The limits of competencies and responsibilities of all staff within the academic and administrative structure of the faculty must be clearly defined.
- **S.6.5.** A sufficient number of well-trained support staff must be provided.
- **S.6.6.** All departments must be represented in a balanced manner in the faculty's boards and committees. Where necessary, pharmacists, students and other relevant stakeholders must be invited to these boards and committees.
- **S.6.7.** The records of the committees must be regularly kept and stored and they must be easily accessible.
- **S.6.8.** The administration of the faculty must be assessed with appropriate methods at regular intervals. The academic and administrative staff, students and alumni must also be included in the assessment process.
- **S.6.9.** The Faculty must establish a network to inform all stakeholders.
- **S.6.10.** All documents must be stored using the latest recording techniques.

UNDERGRADUATE EDUCATION PROGRAM

Standard 7. Undergraduate Education Program

The Faculty's Undergraduate Education program must have a content that will ensure qualifications and competencies of the current Core Education Program.

S.7.1. The outcomes of the program must cover all competencies in ÇEP. The competencies in Turkey Higher Education Qualifications Framework must also be considered when determining the competencies.

The theoretical and practical lessons that will provide the competencies in ÇEP must be properly arranged, complementary and integrated in terms of depth, scope, conformity, quality, succession and reinforcement.

Information about design, synthesis, production, effective and safe use of the drugs that are used for health protection and treatment of diseases and the necessary information for pharmaceutical care must be provided.

- **S.7.2.** The students must complete 300 ECTS to be graduated.
- **S.7.3.** An educational commission, which perform continuous assessment of the educational program for improvement of the program's goals and structure, course contents, educational outcomes, educational strategies ad the quality, must be established, the performance guidelines must be issued and the works must be documented.
- **S.7.4.** Vertical and horizontal integration must be provided in educational programs.
- **S.7.5.** The principle of lifelong learning must be adopted.
- **S.7.6.** Awareness must be provided about the Extended Educational Program (GEP).

Standard 8. Internships and graduation project

The internships must have the intensity, scope, structure, and duration to achieve defined professional qualifications and outcomes.

A graduation project must be carried out under supervision of an academic advisor in the last year of the program.

- **S.8.1.** At least six months of compulsory internship must be completed.
- **S.8.2.** The internships must be organized in such manner that they will be spread to every year during their undergraduate studies and they must be at least two months, full time and continuous in the fifth year.
- **S.8.3.** As an external stakeholder, an internship commission that is composed of at least one pharmacist to arrange the internships must be established and there must be an internship directive which explains the structure of the internship commission, its duties, the duration according to the field of the internships, qualifications and competencies expected to be obtained and the measurement and assessment methods.
- **S.8.4.** The internships must be maintained in an effective way and the number of instructors responsible for supervision must be sufficient.
- **S.8.5.** Different internship opportunities must be provided at home and abroad.
- **S.8.6.** The internships must be integrated with theoretical training and it must develop appropriate attitudes and behaviors towards the professional ethics.
- **S.8.7.** The places of internship must be selected according to the criteria determined by the faculty and they must be reviewed at regular intervals.

- **S.8.8.** There must be a directive on regulations, implementation and assessment of the graduation projects.
- **S.8.9.** The graduation project must have the necessary qualifications to make the student competent in the professional field and provide knowledge in a certain subject.

Standard 9. Teaching and Learning Processes

It must be ensured that the contents of the undergraduate education program are taught and learnt in order to allow the student to reach the targeted educational outcomes and to acquire the professional qualifications.

- **S.9.1.** There must be an administration system that will ensure implementation of the undergraduate education program and ensure its continuous development.
- **S.9.2.** It must be shown that the student can switch to independent learning from dependent learning.
- **S.9.3.** The students must be given the opportunity to select courses by maintaining the integrity and scope of the educational program within its special fields of interest and the goals and the core educational program.
- **S.9.4.** The students must be provided with proficiency in professional deontology as long as they continue their undergraduate education program and awareness must be provided about the legal situations and consequences that may arise in case of violation of these rules.

Standard 10. Assessment of Learning Status

The learning status of the student must be assessed systematically and sequentially with formative and summative assessments.

- **S.10.1.** In the formative assessment, subjects such as cognitive learning, effective communication skills, use of data in the process of problem solving and the acquisition of basic skills related to professional practice must be measured.
- **S.10.2.** The student performance must be measured in accordance with pre-determined outcomes in each field with the summative assessment methods.
- **S.10.3.** The assessment methods must be arranged to reflect the integration and implementation of information, critical thinking, and the ability of students to solve problems, rather than keeping the information in mind for a short time or memorizing them.
- **S.10.4.** The student assessment system used by the faculty must encourage self-learning. The measurement and assessment must measure abilities such as integrating different information, comparing the options and reaching the results by using the information in the real life conditions rather than measuring only the level of knowledge.

Standard 11. Assessment of the Undergraduate Education Program and Continuous Improvement

The undergraduate educational program must be reviewed systematically and periodically and the program must be continuously improved.

S.11.1. An assessment system, which supports the progress of the undergraduate education program with the data that it has achieved for reaching the targeted educational outcomes

- and objectives, must be developed and implemented.
- **S.11.2.** In the assessment process, the academic staff, students, administrators, alumni and the relevant health authority inputs must be considered.
- **S.11.3.** There must be evidences showing that the results obtained from the measurement and assessment systems are used for continuous improvement of the program.

STANDARDS FOR THE STUDENTS

Standard 12. Student Services

The faculty must have a system that organizes, supervises and coordinates the student services and activities.

- **S.12.1.** All decisions about regulations, directives and all relevant legislations covering the responsibilities and rights of the students must be published.
- **S.12.2.** A student affairs unit must be established for performing the student services.
- **S.12.3.** A regular, accurate and secure student registration system must be maintained.
- **S.12.4.** Academic, personal and career counseling services must be provided.
- **S.12.5.** The students must be given an adaptation program before the undergraduate education program begins.
- **S.12.6.** Circulation of students must be provided and they must be encouraged with agreements and partnerships to be established with the higher education institutions at home and abroad by the Faculty.
- **S.12.7.** The students must be given access to health services and necessary precautions must be taken about this issue.
- **S.12.8.** The students must be provided with social, cultural, artistic and sportive opportunities and they must be encouraged to benefit from these.
- **S.12.9.** Student activities must be organized and supported.
- **S.12.10.** Student satisfaction must be assessed and the results must be shared with the relevant units and individuals.

Standard 13. Student Representation

Effective participation of students must be ensured in all processes related to education and it must be shown that the opinions of the students are taken into consideration in the assessments.

- **S.13.1.** There must be student representatives of faculty and classes and they must be selected according to the relevant legislation.
- **S.13.2.** The students must be encouraged and supported to take part in professional organizations.
- **S.13.3.** Student satisfaction surveys must be prepared and applied regularly to get the opinions of the students about the curriculum and the instructors. The assessment results must be taken into consideration and feedbacks must be given to the students by the faculty.
- **S.13.4**. Relations must be established and strengthened with international student organizations.

Standard 14. Student/Instructor Relations

There must be practices to improve the academic and vocational relations between the faculty members and the students.

- **S.14.1.** A teaching and learning environment that supports the students' professional and social development must be provided.
- **S.14.2.** Information must be exchanged with experts from pharmacy and other fields and the students must be supported for participating in activities within and outside the undergraduate education program.
- **S.14.3.** The instructors must strengthen the relations with the students by participating in the social and personal activities of the students.
- **S.14.4.** The students must be encouraged and supported in order for them to participate in national and international meetings, professional organizations and social activities.
- **S.14.5.** Joint professional and/or social responsibility projects must be developed.
- **S.14.6.** Activities of postgraduate education and studies and activities to improve professional attitudes and values must be carried out.

ACADEMIC STAFF

Standard 15. Instructor

The faculty must have faculty members in a number sufficient to provide assessment of the undergraduate program, to have professional and academic expertise, to apply current educational techniques and to cover all areas of the program.

- **S.15.1.** There must be a sufficient number of instructors with academic qualification and experience for each course in the undergraduate education program, and they must be evenly distributed.
- **S.15.2.** The rate of instructors and students in the faculty must be at such level that it must be sufficient for implementation and assessment of the undergraduate program and performance of the other research and academic activities.
- **S.15.3.** The faculty must take advantage of full and/or part time instructors with academic qualifications in various fields as well as the faculty members of other faculties and the guest instructors.
- **S.15.4.** The academic staff must ensure that the program is maintained, assessed and developed effectively.
- **S.15.5.** The academic staff must be able to maintain communication with the relevant sectors, professional organizations and employers.
- **S.15.6.** The academic staff must have necessary competence in communication skills, pedagogy and personal development and be able to use the current education technologies and techniques.
- **S.15.7.** All instructors must have their own responsibility areas and they must participate in educational development programs.
- **S.15.8.** The educational responsibilities of the instructors and the scientific research studies must be balanced.
- **S.15.9.** The instructors must have qualifications that can be seen as role models in terms of professional qualities and behaviors.

Standard 16. Assessment of the Instructors

There must be academic criteria and processes to measure and assess the performance of the instructors.

- **S.16.1.** The competence and skills of the instructors in pharmacy education must be assessed and documented.
- **S.16.2.** It must be assessed whether the instructors contribute to development and progression of the profession of pharmacy by attending in activities such as developing and maintaining continuous education programs, current teaching methods, organizing and participating in professional and scientific meetings, taking part in the university and professional organizations.
- **S.16.3.** In the assessment of the instructors, their administrative tasks and the counseling services for the students must also be taken into consideration.
- **S.16.4.** The instructional performances of the instructors must be monitored, assessed and sustained.

FACILITIES AND LEARNING RESOURCES

Standard 17. Learning Resources

The learning resources must be sufficient and easily accessible to meet the needs of students and to support scientific researches.

- **S.17.1.** Information technology and internet access must be of sufficient quantity and quality.
- **S.17.2.** There must be remote access technologies and mechanisms that facilitate use of libraries from outside the faculty, and these must be introduced to the students.
- **S.17.3.** The views of the students and instructors about the sufficiency of the learning resources must be taken continuously and necessary arrangements must be made accordingly.

Standard 18. Physical Facilities and Possibilities

The faculty must have adequate physical facilities and areas.

- **S.18.1.** There must be appropriate and adequate study areas for the instructors and administrative staff.
- **S.18.2.** The student and research laboratories, classrooms and conference rooms must be equipped with qualifications and equipment to enable performance of the educational activities. There must be additional areas for recreation and activities of the students.
- **S.18.3.** The physical areas must be designed to meet the standards envisaged by the laws for persons with disabilities.
- **S.18.4.** The necessary occupational health and safety measures must be taken in all areas of the faculty.

FINANCIAL RESOURCES

Standard 19. Financial Resources

The faculty must have sufficient financial resources.

- **S.19.1.** The Faculty must establish a budget in line with the principles determined by the Board of Directors for effective use of its financial resources.
- **S.19.2.** The faculty must have a program to increase its financial resources. The facilities obtained from these resources must be used in accordance with the educational priorities and ethical principles.
- **S.19.3.** The faculty must make efforts to increase its budget with private resources, projects and donations.

ACCREDITATION UPDATE

Standard 20. Re-accreditation*

The faculty must undergo a cyclical external assessment process.

- **S.20.1.** The faculty must have participated in an accreditation process before.
- **S.20.2.** In the application of re-accreditation, the progresses and developments obtained in the previous accreditation period must be taken into consideration.

*It must be considered for those which have been accredited, validated and will apply for reaccreditation.

GLOSSARY

ECTS Credit: The credit defined in the European Credit Transfer System

Outcomes: Realistic, quantifiable and measurable built-in performance definitions.

Outcomes assessment: The process of gathering and analyzing information on the extent to which the adopted outcome expectations have been obtained in order to establish grounds for verification or needed improvements.

Assessment: Systematic collection and interpretation of the evidences; as part of the process, this action results in a judgment on effectiveness or value of the educational program implemented by a faculty or any component of the operational structure of that faculty.

Dean: The Professor who is responsible for administration of the Faculty of Pharmacy.

Educational outcomes: The outcome is the state of feasibility that is reflected by integrating and mobilizing a set of resources (skills, attitudes and knowledge) that are effectively used.

Faculty: Faculty of pharmacy at any university.

Pharmaceutical care: In this patient-centered practice model, the pharmacist must be able to identify or impact the targeted health outcomes for a particular patient and to determine the outcomes that can be achieved with proper use of the drugs. While the targeted health outcomes are determined by the patient, the requirements related to the drug will be determined with the patient, the pharmacist and, when necessary, the other health workers. In order to exactly identify the patient's drug-related health outcomes, it is required that a special care relationship based on the mutual agreement between the patient and the pharmacist must be established. Once the appropriate treatment path is established to achieve drug-based health outcomes, the pharmacist and the patient must agree on the mutual responsibilities in implementation and monitoring of the resulting treatment plan for the patient's benefit and safety.

Measurement of Development (Assessment): Grading, examination and other procedures related to learning and skills development of the student.

Formative assessment or formative evaluation: It is also referred to as Assessment for Forming or Training. It is used in defining and eliminating learning deficiencies. It aims to monitor and audit the progress of the students in reaching the outcomes determined in the program in order to contribute to the configuration of the educational program. These tests, which are applied at the end of each unit and aim to determine where the students have difficulty in learning, have learning deficiencies and misinformation, must cover all important elements of the unit concerned. Its features are as follows: a) It is carried out while the education and training processes are still in progress. b) It aims to eliminate the students' learning deficiencies and inaccuracies. And to give feedbacks and make corrections. c) Giving a grade is not the primary objective of this assessment. The additional courses, small group works, supplementary materials, unit tests and subject screening tests and the leaf tests given for preparation for various exams are carried out for assessment.

Professional Competencies: These are the professional qualifications that are required in terms of educational preparation for general implementation of the pharmacy profession including knowledge, skills, capabilities and attitudes.

Mission, goals and objectives: The mission declaration defines the long-term goals or objectives that the faculty of pharmacy will achieve in successive years. The goals define the final results that are expected to be achieved. The objectives set out the relatively short-term conditions to be performed within a given period of time and constitute the measurable evidences of the distance taken towards the faculty's goals.

Stakeholder: Internal stakeholders: academic, administrative staff and students; External stakeholders: alumni, professional organizations, research sponsors etc. (Higher Education Quality Board, Internal Assessment Report Preparation Guide of the Institution, Version 1.3)

Internships (*Practice experiences*): This term covers the structured application activities called experiential learning.

Standards: The accreditation standards reflect the professional and educational results, processes, structures and qualifications determined by ECZAK as key elements in the professional program of pharmacy. The desiderative term "must" indicates that ECZAK has deemed the related condition mandatory for the quality of the program. Compliance with standards means accreditation of the pharmacy undergraduate program. ECZAK determines the extent to which the standards have been complied with and the accreditation status appropriate for the program based on various assessment steps in the accreditation process.

Summative assessment or summative evaluation. It is also called the Assessment for Level Determination. It is usually done at the end of the academic term. The students, the instructors and the program will be judged by considering whether the objectives foreseen by the program are achieved. Its features are as follows: a) It is usually carried out at the end of education. b) In this assessment, the aim is to give the student a success grade. It is decided whether the student has succeeded, passed or failed. c) In this assessment, the student's final behaviors are measured. In other words, it is determined to which extend the students have achieved the desired target behaviors. d) It is implemented to determine the level of reaching the objectives of the curriculum and the level of learning. e) In other words, it aims to measure to which extend the education given in the process and especially at the end of the process has reached the determined objectives.

Turkey Higher Education Qualifications Framework: It was expressed as the Part "2.1.3. Master Qualifications in Health (Academic Weighted)" and/or "2.2.3. Master Qualifications in Health (Academic Weighted)" in the "Health" document with "Main Field Code No. 72" within "Turkey Higher Education Qualifications Framework (TYYC) Main Field Qualifications".