



كلية الطب



Faculty of Medicine
Quality Assurance Unit

المعايير الأكاديمية لبرامج الدراسات العليا

*Academic standards
for master and medical doctorate
degrees*



Introduction

About these standards:

1. These Standards have been developed to set out clearly the graduate attributes and academic characteristics expected to be achieved in the master and MD degrees programs of different clinical or basic disciplines. They also represent general expectations about the standards for the award of master and MD degrees in clinical specialities and articulate the attributes and capabilities that those possessing such qualification should be able to demonstrate.
2. These Standards are expected to serve as an internal /external reference for designing and upgrading the postgraduate (master and MD degree) educational programs in our faculty.
3. This document also sets out the characteristics that curricula should display to be effective in guiding learning, teaching, and experience. The term 'curriculum' is here defined as:

A statement of the intended aims and objectives, content, experiences, outcomes and processes of an educational programme including:

- ❖ A description of the training structure (entry requirements, length and organisation of the programme including its flexibilities, and assessment system).
- ❖ A description of expected methods of learning, teaching, feedback and supervision.

The curriculum should cover both generic professional and specialty specific areas.

The syllabic content of the curriculum should be stated in terms of what knowledge, skills, attitudes and expertise the learner will achieve.

The standards set here will ensure that the curriculum can be the basis of blueprinting for the assessment system.



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1- Graduate attributes and competency based standards for master degree in basis specialties



1- Graduate attributes for master degree

The Graduate (after residence training and master degree years of study) must:

- 1-** Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and medical audit in the chosen field of medicine.
- 2-** Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related speciality.
- 3-** Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of speciality.
- 4-** Dealing with common problems and health promotion using updated information in the field of speciality
- 5-** Identify and share to solve health problems in his speciality.
- 6-** Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical care including update use of new technology in the speciality field.
- 7-** Demonstrate interpersonal and communication skills that ensure effective information exchange with other health professions, the scientific community, junior students and the public.
- 8-** Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.
- 9-** Acquire decision making capabilities in different situations related to his field of practice.
- 10-** Show responsiveness to the larger context of the related health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.



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- 11-** Be aware of public health and health policy issues and share in system-based improvement of his practice and related health care.
- 12-** Show appropriate attitudes and professionalism.
- 13-** Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in the speciality or one of its subspecialties.



2- Competency based Standards for basic master degree graduates

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

- 2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related to the specialty.
- 2-1-B- The relation between practice in the specialty and the welfare of society.
- 2-1-C- Up to date and recent developments in common problems related to the field of specialty.
- 2-1-D- Ethical and medicolegal principles relevant to practice in the specialty field.
- 2-1-E -Quality assurance principles related to the good medical practice in the specialty field.
- 2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

By the end of the program, the graduate should be able to demonstrate the following:

- 2-2-A- Correlation of different relevant sciences in the problem solving and management of common problems of the specialty.
- 2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common situations related to specialty.
- 2-2- C- Demonstrating systematic approach in studying common themes or problems relevant to the specialty field.
- 2-2-D- Making alternative decisions in different situations in the field of the specialty.

2.3- Clinical skills

By the end of the program, the graduate should be able to

- 2-3-A - Provide practical and or laboratory services that can help patient care, solving health problems and better understanding of the normal structure and function.
- 2-3-B- Demonstrate practical / laboratory skills relevant to that specialty.
- 2-3- C- Write and comment on reports for situations related to the field of specialty.

2.4- General skills

By the end of the program, the graduate should be able to

- ✚ *Competency-based outcomes for practice-based learning and improvement*



2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own practice, appraisal and assimilation of scientific evidence, improvements in provided services and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

+ Competency-based objectives for interpersonal and communication Skills

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, lab technical staff and other health professionals.

+ Competency-based objectives for Professionalism

2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

+ Competency-based objectives for Systems-based Practice

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and academic services and the ability to effectively use system resources to provide care that is of optimal value.

2-4-G- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.



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2- Graduate attributes and competency based standards for medical doctorate in basis specialties



1- Graduate attributes for medical doctorate

The Graduate (after residence training and medical doctorate years of study) must:

- 1-** Demonstrate competency and mastery of basics, methods and tools of scientific research and medical audit in the chosen field of medicine.
- 2-** Have continuous ability to add knowledge to the speciality through research and publication.
- 3-** Appraise and utilise relevant scientific knowledge to continuously update and improve practical skills.
- 4-** Acquire excellent level of medical knowledge in the basic biomedical, behavioural and related clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in practical skills and scientific research.
- 5-** Function as a leader of a team to provide appropriate, effective and compassionate reaction when dealing with problems related to speciality.
- 6-** Identify and create solutions for health problems related to his specialty.
- 7-** Acquire an in depth understanding of common areas of speciality, from basic practice and related clinical care to application, and possession of required skills to manage independently all problems in these areas.
- 8-** Demonstrate leadership competencies including interpersonal and communication skills that ensure effective information exchange with other health professions, the scientific community and the public.
- 9-** Function as teacher in relation to colleagues, medical students and other health professions.
- 10-** Master decision making capabilities in different situations related to his field of practice.



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- 11-** Show leadership responsiveness to the larger context of the related health care systems, including the organisation, partnership with health care providers and managers, and resource allocations.
- 12-** Demonstrate in depth awareness of public health and related health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.
- 13-** Show model attitudes and professionalism.
- 14-** Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in the speciality or one of its subspecialties.
- 15-** Use recent technologies to improve his practice in the speciality field.
- 16-** Share in updating and improving practical practice in the speciality field.

2- Competency based Standards for medical doctorate

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

- 2-1-A-** Established, updated and evidence-based theories, basics and developments of specialty and relevant sciences.
- 2-1-B-** Basic, methods and ethics of medical research.
- 2-1-C-** Ethical and medicological principles of medical practice related to specialty field.
- 2-1-D-** Principles and measurements of quality in the specialty field.
- 2-1-E-** Principles and efforts for maintaining and improvements of public health.

2- Intellectual skills

By the end of the program, the graduate should be able to demonstrate the following

- 2-2-A-** Application of basic and other relevant science to solve specialty related problems.
- 2-2-B-** Problem solving based on available data.
- 2-2-C-** Involvement in research studies related to the specialty.
- 2-2-D-** Writing scientific papers.
- 2-2-E-** Risk evaluation in the related clinical practice.
- 2-2-F-** Planning for performance improvement in the specialty field.
- 2-2-G-** Creation and innovation in the specialty field.
- 2-2-H-** Evidence – based discussion.
- 2-2-I-** Decision making in different situations related to the specialty fields.

2.3- Clinical skills

By the end of the program, the graduate should be able to

+ Competency-based outcomes for Patient Care:-

- 2-3-A-** Provide extensive level of practical and or laboratory services that can help patient care ,solving health problems and better understanding of the normal structure and function extensive level means in depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in his field of practice.
- 2-3-B-** Master practical / laboratory skills relevant to that specialty.
- 2-3-C-** Write and evaluate reports for situations related to the field of specialty.

2.4- General skills

By the end of the program, the graduate should be able to

+ Competency-based outcomes for Practice-based Learning and Improvement

- 2-4-A-** Master practice-based learning and improvement skills that involves investigation and evaluation and improvements of their own practice, appraisal and assimilation of scientific evidence and risk management.
- 2-4-B-** Use competently all information sources and technology to improve his practice.
- 2-4-C-** Master skills of teaching and evaluating others.

+ Competency-based objectives for Interpersonal and Communication Skills

- 2-4-D-** Master interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, technicians and other health professionals.



+ Competency-based objectives for Professionalism

2-4-E- Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

+ Competency-based objectives for Systems-based Practice

2-4-F- Demonstrate the ability to effectively use system resources to provide relevant services and care that is of optimal value.

2-4-G- Participate in improvement of the education system.

2-4-H- Demonstrate skills of leading scientific meetings including time management.

2-4-O- Demonstrate skills of self and continuous learning.



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3- Graduate attributes and competency based standards for master degree in clinical specialties

1- Graduate attributes for master degree

The Graduate (after residence training and master degree years of study) must:

- 1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in the chosen field of medicine.
- 2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related specialty.
- 3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of.
- 4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.
- 5- Identify and share to solve health problems in his specialty.
- 6- Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical and evidence based clinical care **including update use of new technology in the speciality field.**
- 7- Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.
- 8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.
- 9- Acquire decision making capabilities in different situations related to his field of practice.
- 10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.



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- 11- Be aware of public health and health policy issues and share in system-based improvement of health care.
- 12- Show appropriate attitudes and professionalism.
- 13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in the speciality or one of its subspecialties.

2- Competency based Standards for clinical master degree graduates

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

- 2-1-A-** Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.
- 2-1-B-** The relation between good clinical care of common health problems in the specialty and the welfare of society.
- 2-1-C-** Up to date and recent developments in common problems related to the field of specialty.
- 2-1-D-** Ethical and medicolegal principles relevant to practice in the specialty field.
- 2-1-E -**Quality assurance principles related to the good medical practice in the specialty field.
- 2-1-F-** Ethical and scientific basics of medical research.

2.2- Intellectual skills:

By the end of the program, the graduate should be able to demonstrate the following:

- 2-2-A-** Correlation of different relevant sciences in the problem solving and management of common diseases of the specialty.
- 2-2-B-** Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to specialty.
- 2.2- C-** Demonstrating systematic approach in studying clinical problems relevant to the specialty field.

2-2-D- Making alternative decisions in different situations in the field of the specialty.

2.3- Clinical skills

By the end of the program, the graduate should be able to

2-3-A - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

2-3-B- Demonstrate patient care skills relevant to that specialty for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of specialty.

2.4- General skills

By the end of the program, the graduate should be able to

+ Competency-based outcomes for Practice-based Learning and Improvement

2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence,, improvements in patient care and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

+ Competency-based objectives for Interpersonal and Communication Skills

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

+ Competency-based objectives for Professionalism



2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

 ***Competency-based objectives for Systems-based Practice***

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-g- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.



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4- Graduate attributes and competency based standards for medical doctorate in clinical specialties



1- Graduate attributes for medical doctorate

The Graduate (after residence training and medical doctorate years of study) must:

- 1- Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in the chosen field of medicine.
- 2- Have continuous ability to add knowledge to the speciality through research and publication.
- 3- Appraise and utilise relevant scientific knowledge to continuously update and improve clinical practice.
- 4- Acquire excellent level of medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific research.
- 5- Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.
- 6- Identify and create solutions for health problems in his speciality.
- 7- Acquire an in depth understanding of common areas of speciality, from basic clinical care to evidence based clinical application, and possession of required skills to manage independently all problems in these areas.
- 8- Demonstrate leadership competencies including interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.
- 9- Function as teacher in relation to colleagues, medical students and other health professions.
- 10- Master decision making capabilities in different situations related to his field of practice.
- 11- Show leadership responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers



and managers, practice of cost-effective health care, health economics, and resource allocations.

- 12- Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.
- 13- Show model attitudes and professionalism.
- 14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in the speciality or one of its subspecialties.
- 15- Use recent technologies to improve his practice in the speciality field.
- 16- Share in updating and improving clinical practice in the speciality field.



2- Competency based Standards for medical doctorate

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

- 2-1-A- Established, updated and evidence- based theories, basics and developments of specialty and relevant sciences.
- 2-1-B- Basics, methods and ethics of medical research.
- 2-1-C- Ethical and medicological principles of medical practice related to specialty field.
- 2-1-D- Principles and measurements of quality in the specialty field.
- 2-1-E- Principles and efforts for maintainace and improvements of public health.

2- Intellectual skills

By the end of the program, the graduate should be able to demonstrate the following

- 2-2-A- Application of basic and other relevant science to solve specialty related Problems.
- 2-2-B- Problem solving based on available data.
- 2-2-C- Involvement in research studies related to the specialty.
- 2-2-D- Writing scientific papers.
- 2-2-E- Risk evaluation in the related clinical practice.
- 2-2-F- Planning for performance improvement in the specialty field.
- 2-2-G- Creation and innovation in the specialty field.
- 2-2-H- Evidence – based discussion.
- 2-2-I- Decision making in different situations related to the specialty fields.

2.3- Clinical skills

By the end of the program, the graduate should be able to

Competency-based outcomes for Patient Care:-

- 2-3-A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic

science to evidence – based clinical application and possession of skills to manage independently all problems in his field of practice.

2-3-B- Master patient care skills relevant to that specialty for patients with all diagnoses and procedures.

2-3-C- Write and evaluate reports for situations related to the field of specialty.

2.4- General skills

By the end of the program, the graduate should be able to

+ Competency-based outcomes for Practice-based Learning and Improvement

2-4-A- Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management

2-4-B- Use competently all information sources and technology to improve his practice.

2-4-C- Master skills of teaching and evaluating others.

+ Competency-based objectives for Interpersonal and Communication Skills

2-4-D- Master interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

+ Competency-based objectives for Professionalism

2-4-E- Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

+ Competency-based objectives for Systems-based Practice:

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-G- Participate in improvement of the education system.

2-4-H- Demonstrate skills of leading scientific meetings including time management

2-4-O- Demonstrate skills of self and continuous learning.