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| **Supplement Table 1. A competency framework for Doctorate in the health professions education** |
| **The First Competency Domain: “Professional Expert”** |
| **Sub-domain**  **Graduates must be able to:**   * **Contribute[[1]](#footnote-1) to the design, implementation and review of an appropriate curriculum for different levels of education.** * **Contribute to the design and implementation of teaching-learning processes and strategies in different educational courses.** * **Design and implement a system of evaluating the education system, curriculum, faculty members, and students in various courses of medical sciences.**   **Competency Components:**  **Graduates must be able to:**  1. Contribute to the design and implementation of need-assessment about courses in accordance with different stakeholders.  2. Contribute to the development of the expected outcomes and educational objective of the various courses.  3. Contribute to the selection and implementation of educational strategies and effective teaching and learning methods, tailored to the learning position (learning environment, goals, audiences, etc.).  4. Contribute to the adoption of the correct strategy in dealing with challenging situations in educational sessions (difficult students, classes and difficult lessons and situations).  5. Select an assessment method appropriate to the educational goals and contribute to designing and applying them.  6. Contribute to analyzing the quality of the student assessment system in different courses and offer suggestions to improve it.  7. Contribute to the development and guidance of a student assessment system for different courses.  8. Contribute to selecting the appropriate type of test(s) considering the utility of the tools.  9. Design a variety of written, verbal, practical, clinical and workplace-based assessments, and contribute to monitoring and implementing them.  10. According to the type and purpose of the test, select the method of standard setting and contribute to its design and implementation.  11. Contribute to analyzing the quality of the types of tests and provide appropriate feedback to stakeholders.  12. Contribute to the development and implementation of the evaluation system for various educational courses.  13. Contribute to the formulation and implementation of an appropriate evaluation plan.  14. Contribute to the design and implementation of appropriate data-collection methods.  15. Contribute to the analysis and interpretation of data resulting from data collection.  16. Contribute to the preparation and presentation of various evaluation reports to stakeholders.  17. Contribute to providing feedback on the evaluation results and activating the continuous improvement cycle of quality improvement.  18. Contribute to the appraisal of the evaluation performed on the basis of the meta-evaluation standards and offer suggestions for its improvement. |
| **The Second Competency Domain: “Research and Scholarship”[[2]](#footnote-2)** |
| **Sub-domain:**  **Graduates must be able to:**   * **Formulate, implement and publish an appropriate research and scholarship project.** * **Make evidence-informed decisions.**   **Competency Components:**  **Graduates must be able to:**  19. Recognize educational problems given the functional gap in the education system.  20. Design an appropriate research question considering the gap of knowledge and based on theories.  21. Search and retrieve evidence in their field of expertise, and appraise it critically and synthesize it.  22. Select the appropriate design for the desired purpose and develop and implement a proper methodology in an original research/developmental project by identifying a variety of studies.  23. Manage executive and financial issues of developmental/research projects (such as obtaining grants).  24. Be committed to ethical considerations at all stages of design, implementation and publication of the results of developmental/research projects.  25. Interpret the findings of developmental/research projects (statistically and theoretically).  26. Publish the results of the developmental/research projects in the journals and present them in the scientific communities.  27. Seek the best evidence in health professions education and appraise it critically in response to professional issues.  28. Make the best decision using the available evidence, the opinion of the experts, by taking into account the educational conditions.  29. Promote an evidence-based decision-making approach among other stakeholders. |
| **The Third Competency Domain: “Teaching”** |
| **Sub-Domain:**  **Graduates must be able to:**   * **Teach learners at different levels.**   **Competency Components:**  **Graduates must be able to:**  30. Contribute to the formulation and implementation of appropriate educational programs based on the needs of the audiences.  31. Implement educational methods and techniques appropriate to their field of expertise, with an emphasis on active teaching-learning methods.  32. Implement the common methods of assessment of students and evaluation of the course. |
| **The Fourth Competency Domain: “Interdisciplinary Collaboration”** |
| **Sub-Domain:  Graduates must be able to:**  **❑ Communicate with different stakeholders and collaborate with them properly.**   * **Consult various stakeholders.**   **Competency Components:**  **Graduates must be able to:**  33. Establish appropriate verbal, nonverbal, and written communication with different audiences. 34. Collaborate as a team member by familiarity with his/her roles and responsibilities and other members in the processes of teamwork.  35. Contribute to shared decision-making processes.  36. Provide effective feedback to team members.  37. Provide counseling to different levels of audiences based on expert knowledge and using advisory strategies[[3]](#footnote-3) and techniques[[4]](#footnote-4). |
| **The Fifth Competency Domain: “Leadership and Management”** |
| **Sub-Domain:**   * **Graduates must be able to:**   **Contribute to managing and leading his/her professional activities.**  **Competency Components:**  **Graduates must be able to:**  38. Contribute to the management of the corresponding field by mastering the principles of specialized professional management.  39. Manage various meetings and challenging situations.  40. Contribute to the creation of and directing changes in the corresponding field using the principles of change management. |
| **The Sixth Competency Domain: “Professionalism”** |
| **Sub-domain: Graduates must be able to:**   * **Comply with the principles of professionalism in their profession.**   **Competency Components:**  **Graduates must be able to:**  41. Be responsible for the assigned tasks. 42. Ensure justice in professional processes. 43. Adhere to self-learning and principles to keep their abilities up to date. 44. Contribute to the process of seeking and providing feedback. 45. Manage conflicts of interest. 46. Perform moral self-regulation. 47. Be committed to the principles of academic integrity (including integrity in education and research, and avoiding fraud and misconduct) in their professional practice. 48. Make optimal use of resources and avoid waste of resources. 49. Demonstrate their commitment to the organization's development and excellence. 50. Adhere to the principles of professionalism in their professional practice and teach other learners as role model. |
| **The Seventh Competency Domain: “Personal and Professional Development”** |
| **Sub-domain:  Graduates must be able to:**  **❑ Use their skills for personal and professional development.**  **Competency Components:**  **Graduates must be able to:**  51. Continuously use lifelong[[5]](#footnote-5) learning and self-directed learning skills[[6]](#footnote-6). 52. Use their emotional-social capabilities[[7]](#footnote-7) in different situations. 53. Balance their personal and professional life using appropriate strategies[[8]](#footnote-8). 54. Apply information technology and professional language skills in educational environments. |

1. In this text, "Contribution" is considered as a spectrum (counseling, coordinating, assuming responsibility, etc.), which is determined by considering the role of graduates, the level of inclusive participation, and based on the conditions and situation of the location of activity. [↑](#footnote-ref-1)
2. In this context, scholarship is considered in the broad sense to include research types such as original research, developmental research, and so on. [↑](#footnote-ref-2)
3. Strategies: Major strategies including planning, steering, and ending a counseling session, tailored to the subject and purpose of the meeting. [↑](#footnote-ref-3)
4. Counseling techniques: Includes techniques, skills and specialized communication skills (such as verbal skills (active listening, effective expression, confirmation, reflection, re-expression, follow-up, explanation, questioning and information extraction), and non-verbal communication skills (attention, proper head movements, silence, and eye contact) and the exchange of information in counseling sessions. [↑](#footnote-ref-4)
5. Life-long learning skills include planning skills for individual learning, rethinking, feedback crawling skills, individual self-improvement skills, meta-cognitive skills, and individual tracking skills. [↑](#footnote-ref-5)
6. Self-directed learning skills include recognizing your learning needs, identifying learning goals, determining how to evaluate learning goals, identifying resources and strategies for learning, and evaluating learning outcomes. [↑](#footnote-ref-6)
7. Emotional and social capabilities include the recognition of individual abilities and limitations, the recognition and management of emotions, communication with others, adaptation, change and solving individual and interpersonal problems, effective coping with the demands, challenges and pressures of the day. [↑](#footnote-ref-7)
8. Lifestyle strategies, well-being, and coping strategies. [↑](#footnote-ref-8)