

The Accreditation Procedure Ensures Quality of Education in Biomedical and Health Informatics

John MANTAS^{a,1}

^a*National and Kapodistrian University of Athens, Greece*

Abstract. The Accreditation and Certification Committee (AC2) of the European Federation for Medical Informatics (EFMI) has initiated, firstly, a collection of data on the existing academic programs in Europe in Biomedical and Health Informatics in Europe, and, secondly, the implementation of the accreditation process for programs. This paper presents the background and the procedures to be applied for the implementation.

Keywords. Accreditation, Education, Biomedical and Health Informatics

1. Introduction

In Europe, the academic leading degree programs in Biomedical and Health informatics (BMHI) are usually evaluated by national accreditation committees. Not always are the members of these committees well informed about the international level of (education in) health informatics. Therefore, when a program is accredited by a national accreditation committee, this does not always mean that the program is of a European quality level in BMHI [1]. The applied guidelines in terms of BMHI educational standards are the International Medical Informatics Association (IMIA) recommendations [2], [3], [4]. Recently, EFMI has established an Accreditation and Certification Committee to implement the accreditation process in Europe. The established EFMI Accreditation and Certification Committee (AC2) tries to fill in this gap among other tasks as well [5], [6].

2. Methods

The AC2 Committee developed the standard operating procedures for implementing the Accreditation process by comparing national and international similar established procedures. The outcome of this report was presented at the EFMI Council in April 2020 and was unanimously approved by the representatives of the 32 national associations, institutional members, and working group chairs.

¹ Corresponding Author, John Mantas, Professor in Health Informatics at the National and Kapodistrian University of Athens, Papadimantopoulou 123, Greece; E-mail: jmantas@nurs.uoa.gr

3. Results

The approved standard operating procedures is the following:

Preparation: After the submission of the application for accreditation by the Institute or the Programme, where it is evident that its hierarchy has approved the application, EFMI Board approves the application for consideration, and assigns the EFMI AC2 Committee to appoint the accreditation panel, consisting of 3 members of the appropriate status selected from a pre-defined list of experienced evaluators with knowledge to perform the task of the evaluation and reporting back to the AC2 Committee.

Documentation: The educational institution prepares its application material for accreditation and completes a self-assessment report. Thereafter, the panel visits on-site the educational institution for a duration of 2-3 days, interviews director, teachers, administrators, students, alumni, and stakeholders, and prepares the panel's on-site report.

Reporting: The EFMI AC2 Committee validates the accreditation on-site panel's report. The educational institution will receive a draft of the accreditation report and can provide corrections on factual elements in the report.

Decision: The EFMI AC2 Committee decides on Accreditation based on the final accreditation report.

The Accreditation Criteria for the final decision are: Need and relevance; Knowledge; Learning Outcome Objectives; Organization and implementation; Internal quality assurance and development.

The decision is endorsed by the EFMI Board upon recommendation of the EFMI AC2 Committee.

Duration: The Accreditation issued by EFMI has a duration of 3 years. Re-accreditation will be required after the expiration of this period. 3.3. Step 3

Fees and Expenses: The institution requesting EFMI Accreditation will pay to EFMI a fixed fee. Special pricing is offered to the existing EFMI academic Institutional Members for accrediting their respective programmes. Accredited institutions wishing to become EFMI Institutional Members may receive 2 years of waiving of their membership fees. More information on the procedures are uploaded at the EFMI website (www.efmi.org) The Institution covers the travel, hotel, hosting, and all local transportation costs of the panel site-visit. members. For flights economy class is remunerated. EFMI pays per diem at EC rates to each member of the site-visit panel. No direct payment of any expenses is allowed between the Institution and the panel site visit members.

Dissemination. The EFMI AC2 Committee will use its developed database of educational programmes as it has been published at the EFMI website (www.efmi.org) to invite programme directors across Europe to consider following the accreditation by EFMI of their programmes.

4. Discussion and Conclusions

The accreditation should be seen by the colleagues in BMHI as a quality assurance process and an important requirement for improving their programmes. Information (e.g. leaflets) about the accreditation process will be made available at EFMI conferences and events. Furthermore, the EFMI website (www.efmi.org) will provide institutions' comments on the experience and the benefits of accreditation. Scientific journals

endorsed by EFMI will be encouraged to organize special issues publishing results of those educational Institutions that participated in the Accreditation process.

A viable plan should be to target to reach at least 10 programmes per year. In the first pilot stages of the implementation (1-2) years less numbers are expected.

Based on experiences from other similar activities the accreditation process requires admin/secretarial support preparing and supporting all documentation, timely decisions, and no delays for reaching final endorsement.

A prompt reaction of the EFMI administration at all stages of the decision making will improve the outcome and efficiency of the accreditation process ensuring the quality of education in Biomedical and Health Informatics in Europe [7]. Furthermore, by improving the quality of education in BMHI in Europe we increase, upgrade, and update the certified qualifications of the healthcare professionals [8], [9], and of the graduates in BMHI supporting the health care systems in Europe

Acknowledgments

The AC2 Committee has been appointed by the EFMI Council and consists of: John Mantas (Chair), Catherine Chronaki, Arie Hasman, Inge Madsen, Anne Moen, Rebecca Radell, and Lacramioara Stoicu-Tivadar.

References

- [1] Mantas J, Ammenwerth E, Demiris G, Hasman A, Haux R, Hersch W, et al. Recommendations of the International Medical Informatics Association (IMIA) on education in biomedical and health informatics. *Methods of information in medicine*. 2010; 49 (02), 105-120.
- [2] Mantas J. Biomedical and health informatics education—the IMIA years. *Yearbook of medical informatics*. Georg Thieme Verlag KG; 2016, 25, S 01, S92-S102.
- [3] Mantas J, Hasman A, Shortliffe EH. Assessment of the IMIA educational accreditation process. *Studies in health technology and informatics*. 2013; 192, 702-706.
- [4] Hasman A, Mantas J. IMIA accreditation of health informatics programs. *Healthcare informatics research*. 2013; 19 (3), 154-161.
- [5] Mantas J. Accreditation and Certification in Health Informatics: Principles and Procedures. *Stud Health Technol Inform*. 2017; 238, 272-275
- [6] Kolokathi A, Hasman A, Chronaki C, Madsen I, Moen A, Randell R, Mantas J. Education in Biomedical and Health Informatics: A European Perspective. *Studies in Health Technology and Informatics*. 2019; 264:1951-1952
- [7] Mantas J. Developing curriculum in nursing informatics in Europe. *International journal of medical informatics*. 1998; 50 (1-3), 123-132.
- [8] Plati C, Lemonidou C, Katostaras T, Mantas J, Lanara V. Nursing manpower development and strategic planning in Greece. *Image: The Journal of Nursing Scholarship*. 1998; 30 (4), 329-333.
- [9] Liaskos J, Frigas A, Antypas K, Zikos D, Diomidous M, Mantas J. Promoting interprofessional education in health sector within the European Interprofessional Education Network. *international journal of medical informatics* 78, S43-S47