



**OGMP**

Österreichische Gesellschaft  
für Medizinische Physik

Regulation on Certification  
of  
Medical Physicists and Medical Physics Experts  
(RLMPE2020)

Education, Training and Continuous Professional Development  
for  
Medical Physicists and Medical Physics Experts

**Austrian Society for Medical Physics**

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Member of IOMP (*International Organization for Medical Physics*), and EFOMP (*European Federation of Organizations in Medical Physics*).

Austria

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## List of abbreviations

Abbreviation	German term	English term/explanation
AAPM		American Association of Medical Physicists
AgMP	Akademisch geprüfter Medizinphysiker	'Academically qualified medical physicist' [Graduate of the postgraduate university course at the Medical University of Vienna]
AP	Ausbildungspunkt	Education point [Points defined by the ÖGMP as credits for education/training done to achieve qualification as Medical Physicist]
BSSD		Basic Safety Standards Directive
CME		Continuous Medical Education
DGMP	Deutsche Gesellschaft für Medizinische Physik e.V.	German Society of Medical Physics
ECTS		European Credit Transfer System
EFOMP		European Federation of Organisations for Medical Physics
EQF		European Qualifications Framework
FAK	Fachanerkennungskommission (der ÖGMP)	Certification committee of the ÖGMP
FP [note: translation uses 'CPD point']	Fortbildungspunkt	Continuous professional development point [Points defined by the ÖGMP as credits for continuous professional development of Medical Physicists and Medical Physics Experts]
CPD [used in translation only]		Continuous professional development
IAEA		International Atomic Energy Agency
IOMP		International Organisation in Medical Physics
MP		Medical Physicist
MPE		Medical Physics Expert

MR		Magnetic resonance tomography
MSc		Master of Science
MUW	Medizinische Universität Wien	Medical University of Vienna
ÖGMP	Österreichische Gesellschaft für Medizinische Physik e.V.	Austrian Association for Medical Physics
QMP		Qualified Medical Physicist
RLMPE	Richtlinie für die Erlangung der Fachanerkennung als Medizinphysiker und Medizinphysik-Experte der ÖGMP	ÖGMP Regulation on Certification of Medical Physicists and Medical Physics Experts [this document]
SGSMP	Schweizerische Gesellschaft für Strahlenbiologie und Medizinische Physik	Swiss Society of Radiation Biology and Medical Physics
SMP		Specialist Medical Physicist
ULG	Universitätslehrgang an der Medizinischen Universität Wien	[Postgraduate] university course [in medical physics] at the Medical University of Vienna
WHO		World Health Organisation
WP	Weiterbildungspunkt	Advanced training point [Points defined by the ÖGMP as credits for education/training of Medical Physics Experts]

The terms listed above are written in full at the first use and subsequently only the abbreviations are used.

## 1 Introduction

Many developments, discoveries and methods in medical physics play roles in diagnosis and treatment of diseases and in preservation and restoration of human health. Successful, efficient and competent application of this knowledge in both medical-clinical and preclinical research requires the participation of medical physicists (MP) and medical physics experts (MPE). The areas of application that are covered by this interdisciplinary subject are diverse and include, among others, the application of ionizing radiation (radiotherapy, x-ray diagnostics and nuclear medicine), and non-ionizing radiation (ultrasound, ultraviolet, laser, magnetic resonance tomography) in both diagnostics and therapy. Other relevant subject areas include medical informatics, image analysis, audiology, optics, medical acoustics and management activities. In view of the increasing complexity of the various disciplines, the demand for MP is steadily rising [1,2,3,6]. The important role of MP in radiotherapy, x-ray diagnostics and nuclear medicine is underlined by radiation protection law.

The work of MP or MPE requires specific practical and theoretical knowledge that go beyond the curriculum of a first degree in physics. Therefore, MP and MPE need suitable postgraduate education, advanced training and continuous professional development (CPD). Minimum standards for education and training of MP and the advanced training for MPE have been formulated by international organizations such as the World Health Organization (WHO), the International Organization for Medical Physics (IOMP), the European Federation of Organisations for Medical Physics (EFOMP), the American Association of Physicists in Medicine (AAPM) and the International Atomic Energy Agency (IAEA) [4,8,10,16,17,18,19,20,21].

The present Regulation for Qualifications of MP and MPE of the ÖGMP is based on the recommendations of the European Federation of Organisations for Medical Physics (EFOMP) and the European Guideline on Medical Physics Expert (Radiation Protection No 174) [11,12,13].

In the following, 'Medical Physicist' and 'Medical Physics Expert' will be used to mean, respectively, the equivalent of the Qualified Medical Physicist (QMP) and the Specialist Medical Physicist (SMP), as these designations are used in the EFOMP Policy Statement No. 10 [8].

These equivalences are based on the definitions of the European Qualifications Framework (EQF) [10] levels of 7+ for the MP and 8 for the MPE (where 8 is the highest defined educational level).

In order to meet the need for a theoretical education in medical physics in Austria, a six-semester postgraduate university course (ULG) in medical physics was inaugurated at the University of Vienna in 1989 (from 2004 at the Medical University of Vienna (MUW)), and revised to reflect new training requirements in 2014. This six-semester course teaches a full curriculum of theoretical knowledge. Graduates of this course have the title 'academically qualified Medical Physicist' (AgMP).

This qualification meets the requirements for theoretical education of medical physicists, and with suitable practical training and work experience, the graduates can progress to the certification as Medical Physicist (ÖGMP). The practical training required by EFOMP is often done by working professionally while taking the university course/ULG.

In order to provide for education and training in medical physics, the ordinary general meeting of the ÖGMP decided in 1993 to institute procedures for education and training in medical physics and for certification by the ÖGMP. These regulations were revised in 2007 to take account of general developments in the education and health systems [16,17].

The present Regulation takes account of the 'Bologna process' and the introduction of Bachelor's and Master's programmes at Austrian universities [15].

In the present Regulation, changes with regard to the admission criteria for the procedure for the professional recognition, the EFOMP-compliant designation of a special subject and the processing fees have been taken into account [15].



The present Regulation is the basis for certification as Medical Physicist (ÖGMP) und as Medical Physics Expert (ÖGMP).

President of the ÖGMP

Chairperson of the  
certification committee

## 2 Aims

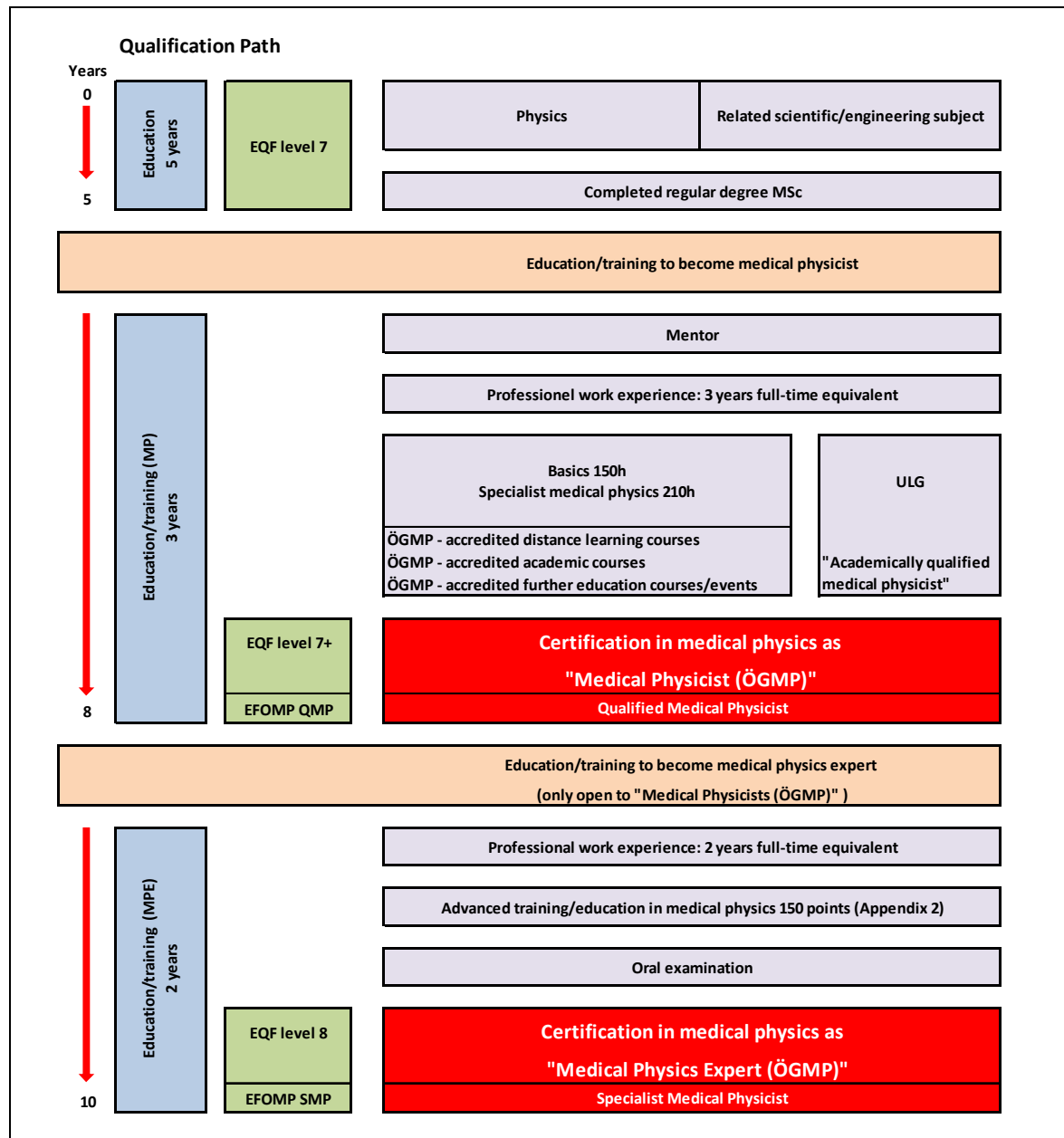
The purpose of the present regulation of the ÖGMP (RLMPE) is to set out the theoretical and practical qualifications of MP and MPE. This should ensure that they are able to carry out their professional tasks independently and on their own responsibility, in collaboration with other medical professions, and to comply with Directive 2013/59/ EURATOM [14].

MP and MPE must acquire practical experience and specialized knowledge in order to be qualified for activities and responsibility in patient care, teaching and research at a high level. Their qualification to do so is defined by the present Regulation of the Austrian Society for Medical Physics for Certification as Medical Physicist (ÖGMP) and Medical Physics Expert (ÖGMP). Besides this, the regulation is intended to serve as an outline that may be taken into consideration by the Radiation Protection Authority in formulating the official requirements for professional qualifications of MP and MPE.

The paths to qualification set out in the RLMPE define the professional profiles of MP and MPE with the goal of achieving mutual recognition by the corresponding professional organizations DGMP [in Germany] and SGSMP [in Switzerland] and also approval by the EFOMP [4,7,8,9] on the basis of the EC RADIATION PROTECTION NO 174 [11,12,13].

### 3 Paths to Qualification as Medical Physicist (ÖGMP) and Medical Physics Expert (ÖGMP)

The diagram shows an overview of the education and training scheme for MP and MPE, based on EFOMP recommendations, guidelines of the European Commission for medical physics experts and the corresponding qualification levels according to the European Qualification Framework (EQF).



## 4 Certification Process for Medical Physicist (ÖGMP)

The certification process for Medical Physicist (ÖGMP) is initiated by an application to the FAK of the ÖGMP and is only open to members of the ÖGMP.

The application for the beginning of training can be obtained from the website of the ÖGMP and should be addressed to the FAK of the ÖGMP ([www.oegmp.at](http://www.oegmp.at)).

The application must be accompanied by the following documents:

1. Curriculum vitae
2. Degree certificates for first degree and if applicable, doctoral degree
3. Supplementary documentation of eligibility for admission
4. Proof of payment of the annual membership fee
5. Proposed place(s) of training and areas of expertise
6. Proposed mentor
7. Plan for part-time training to be taken while working

Point 3 does not apply if the applicant is approved for the ULG. Points 5 to 7 are to be agreed with the future mentor.

The FAK of the ÖGMP evaluates whether the admission conditions are met based on the submitted documents, requests further requirements if necessary and decides what credits can be given for education and training.

NOTE: Degrees and diplomas from universities outside Austria can be recognized if they are equivalent to the University Course in Medical Physics in Vienna and the admission criteria for the university course ULG have been met. The FAK is responsible for deciding on the recognition of foreign qualifications.

The FAK of the ÖGMP also evaluates whether the training programme chosen by the applicant is compatible with the ÖGMP regulations. It accepts the training programme, possibly proposing amendments. The FAK also checks individual parts of the

applicant's professional experience to ensure they are compatible with the requirements set out in the basic principles.

#### 4.1 Eligibility, Admission Criteria

The fundamental responsibility for judging whether applicants meet the admission criteria for education in medical physics lies with the certification committee of the ÖGMP (FAK).

The admission process is only open to members of the ÖGMP.

In accordance with the „Medizinische Strahlenschutzverordnung (in the current version)“ the requirements for admission to the certification process are as follows:

- a. Graduation with the degree 'MSc' or equivalent degree from a regular university in Physics or Technical Physics at a recognized educational institution in Austria or abroad, with at least 300 ECTS
- b. Graduation with the degree 'MSc' from a regular university course in a related scientific or engineering subject or equivalent to the study of physics at a university educational institution in Austria or abroad. The certification committee (FAK) decides on admission of any applicant.

It is assumed that in all studies the following course content has been successfully completed:

1. Introduction to physics to the extent of 20 ECTS
2. Contents in nuclear and isotope physics to the extent of 10 ECTS
3. Lectures and tutorials on calculation methods in physics (5 ECTS)
4. Lectures and tutorials on applied linear algebra (7 ECTS)
5. Lectures and tutorials on applied analysis (8 ECTS)

## 6. Lectures and tutorials on theoretical physics (10 ECTS)

The subject matter of (1–6) is listed in detail in Appendix 1.

For a detailed list of the contents of the above-mentioned courses, refer to the curriculum of the Medical Physics course at the Medical University of Vienna (currently 17. Mitteilungsblatt der Medizinischen Universität Wien, Nr.18 from 29.6.2020). This regulation is in accordance with the “Medizinische Strahlenschutzverordnung” in the current version.

## 4.2 Education/Training of Medical Physicists

The theoretical and practical training of MP is

- a. supervised by a mentor. It is designed to take **at least three years**,
- b. and should not exceed the total duration of 10 years
- c. For certification as a Medical Physicist (ÖGMP), applicants must provide proof of the equivalent of at least **three years of full-time professional practice** in medical physics

## 4.3 Mentor

The mentor must be a **Medical Physics Expert (ÖGMP)** who is authorized by the FAK to act as a mentor (see Appendix 4).

The education and training of MP must be supervised by a mentor.

Graduates of the postgraduate university course ‘Medical Physics’ and graduates of other recognized training courses must also be supervised by a mentor during their period of professional practice.

The applicant for certification shall name their preferred mentor to the FAK of the ÖGMP and this nomination must then be confirmed by the FAK. Subject to justified

exceptions, the mentor should be working at the place of employment of the applicant.

If there is no mentor working at the same place of work as the applicant, the FAK of the ÖGMP shall appoint a mentor (applicant has the right to nominate a preferred mentor).

The mentor

- Supports the professional training of the applicant
- Supports the drafting of a training plan
- Evaluates the training
- And writes a final report to the FAK when the training is completed.

#### 4.4 Theoretical Education for Medical Physicists

For theoretical education as a medical physicist (ÖGMP), knowledge of **at least 360 hours** must be proven.

One hour in this sense is understood as a teaching period of 45 minutes.

These are classified under the 19 sections of the content catalogue (Appendix 2) and take the form of

1. The postgraduate university course 'Medical Physics' at the Medical University of Vienna
- or
2. ÖGMP-accredited courses, and part-time courses taken while working, in medical physics
  3. ÖGMP-accredited educational & training events
  4. ÖGMP-accredited distance learning and e-Learning: IT-based learning system (with success monitoring)

The necessary knowledge includes:

a. **A minimum of 150 hours of fundamental principles** in the following areas (N1-N5):

- Anatomy
- Physiology
- Biophysics
- Biomathematics
- Biomedical engineering
- Hospital organisation
- Radiation biology
- Radiation protection

and

b. **A minimum of 210 hours of specialist courses in medical physics** in the following areas:

- advanced knowledge and practical experience in a clinically relevant subdiscipline of medical physics (Appendix 2, N6–N13).
- knowledge of the fundamentals and general principles of two (at most three) further subdisciplines of medical physics (Appendix 2, N6–N19)

Of these, **at least 240 hours must be completed** at educational institutions as defined, **which include written or oral examinations.**

In the area of radiation protection, the basic course and at least one specialized course for radiation safety officers in accordance with radiation protection law must be chosen.

Graduates of the postgraduate university course in Medical Physics at the Medical University of Vienna are deemed to have the knowledge required by this section.

Approval of training courses by the ÖGMP is done by the FAK as set out in Appendix 5.



## 4.5 Practical Training of Medical Physicists

For certification as a Medical Physicist (ÖGMP) proof of **at least the equivalent of three years' full-time practical professional work experience** must be provided.

Practical professional work may be paid employment (e.g. regular employment or an externally-funded research position) or also unpaid work (e.g. job shadowing with involvement in the work process throughout the full working time) in medical physics. The content of the work done is to be agreed with the mentor.

Whether it is possible to recognize work periods of less than three months shall be decided by the FAK individually.

Whether it is possible to recognize work periods that lie more than ten years in the past at the time of application shall be decided by the FAK individually.

Interruptions of the training, e.g. due to illness, parental leave, or special leave, extend the time limit for completing the training. This applies only to interruptions which amount in total to more than three months in a calendar year.

If the applicant is employed part-time, the time limit for completing the training is extended proportionally (full-time equivalence).

## 4.6 Change of the Training process

The training is to be completed according to the training programme submitted to the FAK.

The FAK of the ÖGMP must be notified without delay of any changes. The FAK will take all decisions in the course of an applicant's certification procedure in consultation with the mentor. If no agreement is reached, the decision of the FAK of the ÖGMP is final. The decision is explained to the applicant.

## 4.7 Application for Certification as Medical Physicist (ÖGMP)

Applications for the ÖGMP certification as a Medical Physicist (ÖGMP) can be submitted to the FAK of the ÖGMP after completion of training and at the earliest 3 years after the beginning of training. The application must be confirmed by the mentor.

The application for certification as a Medical Physicist (ÖGMP) can be obtained from the website of the ÖGMP and should be addressed to the FAK of the ÖGMP ([www.oegmp.at](http://www.oegmp.at)).

The application must include:

1. The written request for certification
2. Records of the part-time training\*
3. Proof of the nature and scope of the professional work experience
4. Proof of payment of the administration fee and the annual membership fees.
5. Final report of the mentor

\* In the case of graduates of the postgraduate university course in 'Medical Physics' at the Medical University of Vienna, the diploma of the course is accepted as proof of training.

If all conditions are met, the certification as a Medical Physicist (ÖGMP) is issued in accordance with Appendix 7. This certificate entitles the holder to use the title Medical Physicist (ÖGMP).

For the processing of the application, a fee published on the ÖGMP website is charged.

If the membership is less than 3 years at the time of application, three times of this amount will be charged.

## 4.8 Period of Validity of Certification of Medical Physicists (ÖGMP)

The certification as a Medical Physicist (ÖGMP) or Medical Physics Expert (ÖGMP) is **valid for a fixed term of five years.**

Applications for renewal of the certification can be submitted to the FAK of the ÖGMP at the earliest half a year before expiry.

## 5 Certification Process for Medical Physics Expert (ÖGMP)

The certification process is only open to members of the ÖGMP.

### 5.1 Training of Medical Physics Experts with a specialty area

The theoretical and practical training of Medical Physics Experts (ÖGMP) is designed to take **at least two years**.

To obtain certification as a Medical Physics Expert (ÖGMP) the applicant must provide proof of

- a. Certification as a Medical Physicist (ÖGMP)
- b. A further period of at least the equivalent of two years full-time work as a Medical Physicist (ÖGMP) in the chosen specialty, whereby the specialty must be assigned to one of the specialty areas N6-N19 in Appendix 2
- c. **At least 150 advanced training points** (WP) in the chosen specialty from the training and education options in medical physics listed in Appendix 3 Point 3.1, such that
  - the full-time work equivalent can be counted for 50 WP per year and a maximum of 100 WP in total
  - and at least 20 points from Appendix 3 (A 3.1) must be from Category 3, with the condition that in categories 3a and 3b only a first-author publication or scientific lecturing can be counted
- d. A successfully passed oral examination (see 5.4)

Point d does not apply to applicants who have a habilitation or an equivalent academic position in the area of the chosen speciality.

## 5.2 Training of Medical Physics Experts with an additional speciality area

The theoretical and practical training of 'Medical Physics Experts (ÖGMP)' for an additional speciality is designed to take at least two years.

To obtain certification as a Medical Physics Expert (ÖGMP) with an additional speciality the applicant must provide proof of

- a. Certification as a Medical Physicist (ÖGMP) in the existing speciality
- b. A further period of at least the equivalent of **two years full-time work** as a Medical Physicist (ÖGMP) in the additional speciality, whereby the specialty must be assigned to one of the specialty areas N6 - N19 in Appendix 1
- c. A further training in the field of medical physics of **at least 150 advanced training points** (WP) in the selected additional speciality, as set out in Appendix 3 Point 3.1

## 5.3 Application for Certification as a Medical Physics Expert (ÖGMP)

The ÖGMP certification as a Medical Physics Expert (ÖGMP) has to be applied at the FAK of the ÖGMP after completion of advanced training.

The application for certification as a Medical Physics Expert (ÖGMP) can be obtained from the website of the ÖGMP and should be addressed to the FAK of the ÖGMP ([www.oegmp.at](http://www.oegmp.at)).

The application must include:

1. The written request for certification as a Medical Physics Expert (ÖGMP)
2. Proof of the certification as a Medical Physicist (ÖGMP)

3. Documentation of the type and scope of professional work experience since certification (ÖGMP)
4. Proof of completion of the education and training measures in medical physics listed in Appendix 3 corresponding to at least 150 advanced training points (WP) as defined in Section 6
5. Proof of payment of the administration fee and the annual membership fees

The FAK of the ÖGMP evaluates whether the conditions have been met and if necessary, requests additional documentation.

If all conditions are met, the FAK of the ÖGMP nominates **three examiners** for the oral examination and names them to the applicant along with the invitation to the examination.

For the processing of the application, a fee published on the ÖGMP website for the professional recognition procedure for medical physics expert will be charged. If the membership is less than 3 years at the time of application, three times of this amount will be charged.

## 5.4 Oral Examination

For the oral examination, the FAK appoints three examiners, generally two Medical Physics Experts (ÖGMP), at least one of whom comes from the specialist area specified by the applicant and a member of the FAK of the ÖGMP and announces the date and time of the examination.

If necessary, the FAK can invite additional persons. The oral examination is held preferably in German and is usually held during the annual conference of the ÖGMP.

At least 2 months before the oral examination, the applicant is notified of three topics from the specialist area chosen by the applicant.

The applicant should be able to give an extemporaneous presentation on one of these topics, chosen by the examiners, lasting approximately 20 minutes. Subsequently, the applicant should answer questions on their field of work, including questions that go beyond the 3 notified topics, in an interview with the examiners. The oral examination

lasts 45 minutes.

When the applicant has passed the oral examination, the minutes of the examination are archived by the FAK and the FAK confers the certification as a Medical Physics Expert (ÖGMP) and issues the certificate Medical Physics Expert (ÖGMP) in accordance with Appendix 8. This confers on the applicant the right to use the title Medical Physics Expert (ÖGMP).

If certification is refused, the examiners explain the reasons for this to the applicant. The applicant can appeal to the FAK against the decision. If no agreement is reached, the executive committee of the ÖGMP decides.

A failed oral examination can be repeated. In the event of a failed oral examination, the applicant must wait for half a year before applying for a repeat examination.

## 5.5 Period of Validity of Certification of Medical Physics Experts (ÖGMP)

The certification as a Medical Physics Expert (ÖGMP) is **valid for a fixed term of five years**.

With the extension of the recognition as a Medical Physics Expert, the recognition as a Medical Physicist is extended at the same time.

Applications for renewal of the certification can be submitted to the FAK of the ÖGMP at the earliest half a year before expiry.

## 6 Renewal of Certification

### 6.1 Renewal of Certification for Medical Physicists (ÖGMP)

The certification is renewed for a further five years if the holder

1. has worked professionally for the **equivalent of at least two years of full-time**

**work** in the field of Medical Physics

and

2. provides proof of completion of **CPD corresponding to 250 CPD points** during the relevant period.

For the documentation of CPD, the points scheme defined in Appendix A 3.2 applies.

The approval of CPD courses/events by the FAK of the ÖGMP is regulated as set out in Appendix 5 Point 5.3.

In the event of interruptions of work, e.g. for illness, parental leave or special leave, an application can be made to the FAK to extend the period for gathering the CPD. This applies only to interruptions of a total of more than three months. The FAK of the ÖGMP decides on the application and if appropriate confirms an extension of the existing certification.

In the event of refusal of the application, the applicant is informed of the reasons. The FAK can set an additional deadline for the applicant to fulfil the requirements.

In the case of late applications for the renewal, the renewal of the professional certification can be pronounced from the time of expiry, whereby the further training requirements for the further training interval (s) must be observed.

## **6.2 Application for Renewal of Certification as a Medical Physicist (ÖGMP)**

Applications for renewal of certification as a Medical Physicist (ÖGMP) should be submitted to the FAK of the ÖGMP.

The application must include:

1. The written request for renewal of the certification as Medical Physicist (ÖGMP)
2. The valid existing certificate of the ÖGMP
3. Documentation of the type and scope of professional work since the original certification (ÖGMP) or the last renewal

4. Proof of CPD corresponding to 250 FP
5. Proof of payment of the administration fee and the annual membership fees.

For the processing of the application, a fee published on the ÖGMP website for the professional recognition procedure for Medical Physics Expert will be charged.

The FAK of the ÖGMP evaluates whether the conditions are met and requests supplementary materials if necessary.

If all conditions are met, a new certification as a Medical Physicist (ÖGMP) is issued in accordance with Appendix 7. This certificate entitles the holder to use the title Medical Physicist (ÖGMP) for a further period of 5 years.

### 6.3 Renewal of Certification for Medical Physics Experts (ÖGMP)

The certification is renewed for a further five years if the holder

1. has worked professionally for the **equivalent of at least two years of full-time work** in the field of medical physics

and

2. provides proof of completion of **CPD corresponding to 250 CPD points** during the relevant period, with
3. 80 training points (FP) from the area of the specialty included.

If there are certifications for several specialty areas,

1. the applications must be made separately and
2. a maximum of 70 advanced training points (FP) can be credited jointly for both specialist areas.



For the documentation of CPD, the points scheme defined in Appendix A 3.2 applies.

The approval of CPD courses/events by the FAK of the ÖGMP is regulated as set out in Appendix 5 Point 5.3.

In the event of interruptions of work, e.g. for illness, parental leave or special leave, an application can be made to the FAK to extend the period for gathering the CPD. This applies only to interruptions of a total of more than three months. The FAK of the ÖGMP decides on the application and if appropriate confirms an extension of the existing certification.

In the event of refusal of the application, the applicant is informed of the reasons. The FAK can set an additional deadline for the applicant to fulfil the requirements.

In the case of late applications for the renewal, the renewal of the professional certification can be pronounced from the time of expiry, whereby the further training requirements for the further training interval (s) must be observed.

## **6.4 Application for Renewal of Certification as a Medical Physics Expert (ÖGMP)**

Applications for renewal of certification as a 'Medical Physicist (ÖGMP)' or 'Medical Physics Expert (ÖGMP)' should be submitted to the FAK of the ÖGMP.

The application must include:

1. The written request for renewal of the certification as Medical Physics Expert (ÖGMP)
2. The valid existing certificate of the ÖGMP
3. Documentation of the type and scope of professional work in the speciality since the original certification (ÖGMP) or the last renewal
4. Proof of CPD corresponding to 250 FP
5. Proof of payment of the administration fee and the annual membership fees.

For the processing of the application, a fee published on the ÖGMP website is charged.

The FAK of the ÖGMP evaluates whether the conditions are met and requests supplementary materials if necessary.

If all conditions are met, a new certification Medical Physics Expert (ÖGMP) is issued in accordance with Appendix 8. This certificate entitles the holder to use the title Medical Physics Expert (ÖGMP) for a further period of 5 years.

## 7 Dormancy and Disqualification

After expiry of the certification period, the certification is automatically made dormant.

If an application of renewal is requested within one year of the dormancy, a renewal can be granted with a positive assessment by the FAK starting with the retirement date.

On receiving an application for renewal after a certification has become dormant over one year, the FAK decides on conditions and, if successful, can grant a renewal starting with the date of dormancy.

The behavior of medical physicists is based on general principles towards third parties and the public and serves the well-being of the patient. Animal experiments are subject to the rules of animal welfare.

In the event that a disciplinary body or a court makes a finding of serious misconduct against a Medical Physicist (ÖGMP) or Medical Physics Expert (ÖGMP), their certification can be cancelled by the executive committee of the ÖGMP on the recommendation of the FAK.

The person concerned will be informed of the decision on the withdrawal in writing by the president.

The person concerned must be given the opportunity to be heard.

The body of objection to the withdrawal of the certification is the next general assembly. The general assembly decides with a 2/3 majority.

## 8 Membership of the Certification Committee of the ÖGMP

The FAK of the ÖGMP consists of three to five members. These are appointed by the executive committee of the ÖGMP. Their regular period of office is four years; subsequent re-nomination is allowed. The executive committee of the ÖGMP chooses the chairperson; he or she manages the business of the committee. The FAK of the ÖGMP takes decisions by simple majority. In the event of a tied vote, the casting vote of the chairperson decides.

## 9 Recognition of Foreign Certifications

Assessments of equivalence of certifications from other countries to the ÖGMP certification are made by the FAK of the ÖGMP. If necessary, the FAK stipulates additional requirements in order to ensure that equivalence is reached. The FAK decides on the level of qualification.

The FAK of the ÖGMP shall recognise the certifications of other countries that conform to the currently valid version of the EFOMP guidelines as equivalent, provided that the admission criteria as set out in Section 4 are met and the applicant's education, training and CPD comply with these ÖGMP regulations.

## 10 Transitional Arrangements

Medical physicists / medical physics experts (ÖGMP) who already have the qualification as medical physicists / medical physics experts (ÖGMP) at the time this Regulation comes into effect, can apply for an renewal of their certification according to the Regulations up to 5 years after this Regulation comes into effect. The assignment of the specialty is based on evidence of the type and scope of the professional activity.

Medical physicists (ÖGMP) who submit an application for the MPE are entitled to complete the certification for the MPE according to the previously valid Regulations up

to 2 years after this Regulation came into effect. The specialty corresponds to the main topic of the oral examination.

## **11 Amendment of the Regulation**

Any amendment of this Regulation requires the support of a majority of votes at an ordinary general meeting of the ÖGMP. A motion for the amendment must be published in the agenda of the meeting in compliance with the applicable deadline.

## **12 Withdrawal of the Regulation**

This regulation can be withdrawn by a resolution of the ordinary general meeting of the ÖGMP with a two-thirds majority.

## **13 Effective Date**

This Regulation in the present form shall come into effect on 01.01.2021 (resolution of the ordinary online general meeting of the ÖGMP on 26.11.2020 with electronic voting from 16.12.2020)

## Appendix 1: Admission Requirements

For graduates of a Master's degree at domestic and foreign universities, in a scientific-engineering subject related to physics or in a scientific-engineering subject related to the study of physics, must provide proof of having taken and passed courses in the following subject areas for admission to the certification process:

### 1. Introduction to Physics: 20 ECTS

Proof of lectures, calculation exercises und demonstration tutorials (with integrated examinations) on the fundamental principles of mechanics and physics of heat. These must include: mechanics of point masses and rigid bodies, elasticity, friction, statics and dynamics of fluids, oscillations and waves, temperature, ideal and real gases, phase diagrams, entropy, laws of thermodynamics, thermal conduction, thermodynamic cycles, electrostatics, condensers, dielectric polarization, direct current, alternating current, electrical resistance, electrical conduction in gases, liquids and solids, magnetostatics, magnetic properties of materials, induction, alternating current circuits, electromagnetic oscillations and waves, Maxwell's equations, wave optics, geometrical optics, optical instruments, elements of relativity theory.

### 2. Nuclear and Isotope Physics: 10 ECTS

Fundamentals of phenomenology of nuclear physics including knowledge about fundamental particles. Composition, general characteristics, reactions and interactions (radioactivity and nuclear reactions) of atomic nuclei (including the related atomic processes), the methods and most important instruments used to investigate them, and important practical applications in science, medicine and technology.

### 3. 5 ECTS from lectures and tutorials on calculation methods in physics

Including: functions, vectors, differentiation, integration, Taylor series, complex numbers, error analysis differentiation of fields, integration of fields, ordinary differential equations.

### 4. 7 ECTS from lectures and tutorials on applied linear algebra

Including: elementary vector calculation – vectors in planes and in three dimensions, vector addition, scalar products, vector products, notation of theoretical physics (sum conventions, Kronecker symbol); concept of the vector space (over  $\mathbb{R}$  or  $\mathbb{C}$ ); fundamental principles of linear independence and dependence, partial space, base; matrices; linear representations, matrix representation,  $\ker$ ,  $\text{im}$ , linear functional, dual space; linear equation systems, Gauss elimination; determinants; Eigenvalues, Eigenvectors, characteristic polynomial.

5. 8 ECTS from lectures and tutorials on applied analysis

Including: terminology of set theory; natural numbers, rational numbers, real numbers, complex numbers, field axioms; real number series, convergence, limited and unlimited set of real numbers; functions, continuous functions, limits; transcendental functions, trigonometric functions, logarithms, exponential functions (real and complex), differential and integral calculus.

6. 10 ECTS from lectures and tutorials on theoretical physics

Including: Galileo space-time, symmetries and conservation laws, Lagrangian, Hamiltonian and Hamilton-Jacobi formulation of analytical mechanics, canonical transformations, special relativity theory, basic features of classical field theory (e.g. using electrodynamics); Integral and differential form of Maxwell's equations, boundary value problems in electrostatics and magnetostatics, multipole expansion, Lorentz invariance in electrodynamics; Principles of quantum mechanics and simple 1-dimensional problems, Schrödinger equation, hydrogen atom, symmetries and conservation quantities, perturbation theory, time-dependent problems, spin, scattering theory

Basically, 80% of the syllabus of the courses to be credited should match the course content mentioned here and the equivalence of the ECTS should also be guaranteed.

## Appendix 2: Content Catalogue

Areas of work that cannot be grouped into the clinical fields are subject to the decision of the FAK when the applicant registers at the beginning of training. For this purpose the applicant has to submit a profile and structure of their work activities.

The content catalogue should be used as a guide for designing the contents of study programmes in medical physics, part-time courses, advanced training and CPD.

The content catalogue allows sufficient freedom to select and structure course contents. Some topics, such as fundamental principles, image analysis, quality assurance and technical safety are listed in multiple sections of the content catalogue.

### Area A - Basics

#### **N1. Anatomy and physiology**

N1.1 Principles of medical terminology

N1.2 Cell and metabolism

N1.3 Skeleton and muscle system - ligaments, tendons and joints

N1.4 Heart and circulation

N1.5 Respiratory system

N1.6 Digestive organs

N1.7 Prostatitis

N1.8 Endocrine system

N1.9 Blood and blood-forming organs

N1.10 Brain and nervous system

N1.11 Sensory organs

N1.12 Skin

#### **N2. Biophysics and biochemistry**

N2.1 Principles of molecular biology

N2.2 Nucleic acids

N2.3 Amino acids, proteins (including structure elucidation) N2.4 Nutrition and vitamins, enzymes, coenzymes

N2.5 Intermediate metabolism and biological oxidation

N2.6 Physics of sense organs, neuro-biochemistry

N2.7 Biophysics and biochemistry of the cell

N2.8 Methods of cytometry

N2.9 Substance exchange by membranes, exo- and endocytosis

N2.10 Signal transduction at the cellular level

### **N3. Biomathematics and computer science**

N3.1 Principles of Probability Theory

N3.2 Descriptive statistics

N3.3 Point and interval estimation

N3.4 Statistical tests (parametric, parameter-free, variance analysis)

N3.5 Analysis of survival times

N3.6 Regression

N3.7 Test planning, power analysis

N3.8 Sensitivity, specificity of diagnostic procedures and predictive value

N3.9 Basic concepts of information theory

N3.10 Medical information systems and data protection

N3.11 Basic concepts of digital signal processing

N3.12 Fundamentals of digital image processing



**N4. Medical technology**

- N4.1 Biosignal detection (EEG, ECG, EMG biomagnetic signals) N4.2 Patient monitoring and monitoring
- N4.3 Endoscopy in diagnostics and therapy
- N4.4 Respiration, narcosis and resuscitation
- N4.5 Cardiac support (heart-lung machine, heart pacemaker, artificial heart)
- N4.6 Treatment with electrical current (stimulatory therapy, diathermy, bloodstill, surgery)
- N4.7 Dialysis
- N4.8 Prostheses and orthoses
- N4.9 Infusion technics
- N4.10 Ultrasonic diagnosis and ultrasound therapy
- N4.11 Laser in diagnostics and therapy
- N4.12 Legal requirements (rules, regulations, technical safety standards)
- N4.13 Calibration
- N4.14 Quality assurance (legal basis, terms and definitions, quality management procedures in health care)

**N5. Organizational and legal principles in health care**

- N5.1 Health care structure
- N5.2 Organizational structure of hospitals and medical institutions
- N5.3 Job profiles and responsibilities of hospital workers, legal requirements
- N5.4 Hospital company organization (administrative, organizational, guidelines)
- N5.5 Legal issues
- N5.6 Quality Assurance and Certification
- N5.7 Documentation and archiving
- N5.8 Basic Course Radiation Protection
- N5.9 Special Course Radiation Protection "X-ray Diagnostics"
- N5.10 Special Course Radiation Protection "Open radioactive substances"
- N5.11 Special Course Radiation Protection "Radiotherapy"

N5.12 Introduction to the “Medizinproduktegesetz“ and the „Medizinproduktebetreiber-verordnung“

## **Area B – Special and optional areas**

### **N6. Radiotherapy**

N6.1 Physical Basics of Radiation Therapy

N6.2 Biological Basics of Radiation Therapy

N6.3 Dosimetry of ionizing radiation, method for dosimetry, clinical dosimetry

N6.4 Procedure for the calculation of dose and dose distribution

N6.5 Radiotherapy for percutaneous and brachytherapy

N6.6 Indications for radiation therapy, dosage for various diseases and tumor sites

N6.7 Methods of tumor localization

N6.8 Radiation planning and simulation, optimization of the dose distribution in the body and application of biological models

N6.9 Radiation techniques to achieve specific dose distributions in the body

N6.10 Irradiation Field Verification Techniques and Therapy Image Procedures

N6.11 Quality assurance including verification and logging systems

N6.12 Radiation protection of the patient and the personnel

N6.13 Planning and setting up radiotherapy departments

### **N7. Nuclear medicine**

N7.1 Physical Basics of Nuclear Medicine

N7.2 Radiation Measurement and Dosimetry

N7.3 Production of radionuclides (cyclotron, reactor, generator)

N7.4 Basic principles of nuclear medicine diagnostics and therapy (radiopharmaceuticals)

N7.5 Biological Radiation and Toxicity of Radioactively-labeled Substances

N7.6 Biokinetics of radioactive substances, determination of organ doses

N7.7 Planar gamma camera systems

- N7.8 Emission tomography with gamma rays (SPECT)
- N7.9 Positron Emission Tomography (PET)
- N7.10 Data collection and processing in nuclear medicine; Networking
- N7.11 In vivo screening methods
- N7.12 In vitro diagnostics
- N7.13 Nuclearmedical therapy and intratherapeutic dosimetry
- N7.14 Quality control and quality assurance
- N7.15 Radiation protection of the patient and the personnel
- N7.16 Planning and setting up nuclear medical departments

### **N8. Diagnostic Radiology**

- N8.1 Generation and properties of X-rays
- N8.2 X-ray examination methods and equipment
- N8.3 Characteristics of analogue and digital picture-receiver systems
- N8.4 Physical parameters of the imaging system and image quality
- N8.5 Digital imaging, processing and documentation in sectional and projection radiography
- N8.6 Interventional radiology
- N8.7 Quality assurance and quality control measures
- N8.8 Dosimetry in x-ray diagnostics, diagnostic reference values, CTDI
- N8.9 Radial exposure of patients and personnel, dose estimation in pregnant women
- N8.10 Special features of pediatric X-ray diagnostics
- N8.11 Technical and organizational radiation protection
- N8.12 Planning and setting up of X-ray diagnostics departments

### **N9. Clinical Audiology**

- N9.1 Physical, medical, psychological and special pedagogical foundations
- N9.2 Psychophysics of hearing and perception

- N9.3 Psychoacoustical methods of audiometry: sound, speech and overwell audiometry
- N9.4 Impedance measurement at the center hole
- N9.5 Acoustically and electrically evoked potentials
- N9.6 Otoacoustic emissions
- N9.7 Diagnosis and therapy of communication disorders in infancy and childhood
- N9.8 Noise abatement and their prevention
- N9.9 Supply of hearing aids and cochlear implants
- N9.10 Rehabilitation of hearing-impaired: hearing-related communication disorders, multimodal activities
- N9.11 Neurotology, Vestibular Diagnosis
- N9.12 Quality Assurance and Organizational Aspects

### **N10. Clinical applications of lasers**

- N10.1 Physical fundamentals of quantum electronics and electrooptics
- N10.2 Production of laser radiation, physical and technical data of the most important laser
- N10.3 Laser Radiation Measurement
- N10.4 Laser protection in the clinic
- N10.5 Optical transmission systems
- N10.6 Interactions of laser radiation with biological tissue
- N10.7 Laser spectrometry and dosimetry of medical laser applications
- N10.8 Clinical-therapeutic laser applications
- N10.9 Clinical-diagnostic laser applications

### **N11. Clinical-medical optics**

- N11.1 Physiology and Psychophysics of Seeing
- N11.2 Theory of imaging systems
- N11.3 Ophthalmic optics
- N11.4 View at work and in traffic

N11.5 Optical measurements on the patient

N11.6 Diagnostic and therapeutic laser applications

N11.7 Radiation protection (infrared, UV, laser)

## **N12. Clinical use of ultrasound**

N12.1 Sound emission and reception

N12.2 Sound propagation in tissue

N12.3 Imaging after pulse switching: A, B and M image

N12.4 Endoscopic methods

N12.5 Measurement of blood flow: Doppler method, "Color Velocity Imaging"

N12.6 Tissue characterization

N12.7 Ultrasonic computer tomography

N12.8 Quality assurance: test objects and tissue phantoms

N12.9 Biological effects of ultrasound

N12.10 Therapeutic and surgical applications

N12.11 Safety aspects in diagnostic applications

N12.12 Ultrasonic exposure and dosimetry

## **N13. Clinical Application of Magnetic Nuclear Resonance**

N13.1 Nuclear and electron spin in the magnetic field

N13.2 Nuclear magnetic resonance

N13.3 Relaxation processes and mechanisms

N13.4 Experimental methods of MR (stationary, pulse methods)

N13.5 MR technology (magnet, gradient, HF components)

N13.6 Magnetic resonance imaging (MRI)

N13.7 Parameter-selective MRI (density, relaxation, diffusion, flow)

N13.8 Functional MRI

N13.9 Chemical shift, spin-spin coupling and MR spectroscopy

N13.10 In vivo MR spectroscopy (MRS)

N13.11 MR spectroscopy of body fluids

N13.12 Quality assurance

N13.13 Erection of MRI systems

#### **N14. Physical Measurement Techniques in Medicine**

N14.1 Mechanical, thermal, electrical and optical measurements

N14.2 Sensors, measuring arrangement

N14.3 Automation and process control for measuring operations

N14.4 Electronic techniques for signal processing

N14.5 Digitization, data compression, interfaces

N14.6 Filtering, averaging

N14.7 Signal analysis (e.g., correlation and transformation techniques, extraction of characteristic parameters)

N14.8 Evaluation and error analysis

N14.9 Presentation and documentation of results

N14.10 Patient safety during physical measurements

#### **N15. Medical Acoustics**

N15.1 Physical principles of acoustics

N15.2 Generation, propagation, measurement and evaluation of sound

N15.3 Processing and analysis of acoustic signals

N15.4 Acoustics and diagnostics of voice and speech

N15.5 Noise control, sound insulation and sound damping

N15.6 Room and building acoustics

N15.7 Electroacoustics N15.8 Ultrasound

N15.9 Infrared

N15.10 Shock waves

N15.11 Special acoustic measurement methods (e.g., photoacoustic measurements)

N15.12 General and special equipment

### **N16. Physiological optics and lighting technology**

N16.1 Physiology and Psychophysics of Vision

N16.2 Theory of Image Systems

N16.3 Light technology, photometry

N16.4 Infrared and UV techniques

N16.5 Endoscopy, beam guidance system, optical fiber technology

N16.6 Microscopic methods

N16.7 Optical spectroscopy

### **N17. Imaging and image processing in medicine**

N17.1 Basic concepts of imaging procedures

N17.2 Data Collection and Privacy

N17.3 Digitization of the image information

N17.4 Mathematical Methods of Image Transformation

N17.5 Digital filtering

N17.6 Gray value distribution, statistical parameters

N17.7 Texture and pattern recognition

N17.8 Reconstruction methods and visualizations

N17.9 3D and 4D representations

N17.10 Interactive image analysis

N17.11 Image representation, pseudo-colors

N17.12 Image transmission and networking techniques

N17.13 Characteristics of image quality, test methods

N17.14 Image errors, artefacts

N17.15 Standard protocols of digital image communication, data compression

N17.16 Systems of digital image archiving

### **N18. Physical medicine**

N18.1 Manual medicine

N18.2 Basic principles of physiotherapy, massage, occupational therapy

N18.3 Function of muscle and skeletal system

N18.4 Biomechanics of motion apparatus

N18.5 Ergometry, stress ECG

N18.6 Electrophysiology of nerve and muscle cells

N18.7 Electrodiagnosis, therapy

N18.8 ECG, EMG

N18.9 Interaction of electromagnetic radiation with the organism

N18.10 Ultrasonic therapy

N18.11 Phototherapy (IR, visible light)

N18.12 Interaction of ionizing radiation with the organism

N18.13 Hydro, cryo, thermotherapy

N18.14 Hyperthermia applications

N18.15 IR thermography

N18.16 Biomechanical measurement methods

N18.17 Measurement methods in medicine

### **N19. Radiation protection in medicine**

N19.1 Legislation in the field of radiation protection

N19.2 Fundamentals of Radiation Biology

N19.3 Ionizing and non-ionizing radiation sources

N19.4 Measuring instruments and dosimetry in radiation protection

N19.5 Technical and organizational radiation protection

N19.6 Beam exposure of patients and personnel



- N19.7 Dosimetry and dose estimation in X-ray diagnostics, nuclear medicine and radiotherapy
- N19.8 Special features of medical radiation protection in pediatric applications
- N19.9 Protective measures in X-ray diagnostics
- N19.10 Protective measures for the operation of X-ray devices and other radiation devices for therapy, as well as for the handling of enclosed radioactive substances
- N19.11 Precautions for handling open radioactive materials
- N19.12 Contamination, decontamination, whole body measurements and precipitation analyzes
- N19.13 Collection, temporary storage and disposal of radioactive waste
- N19.14 Quality control and quality assurance
- N19.15 Constructional radiation protection
- N19.16 Hazards and protective measures for MRI
- N19.17 Hazards and protective measures for laser applications

## Appendix 3: List of points for the evaluation of Advanced Training and Continuous Professional Development (CPD)

### A 3.1 List of points for evaluating advanced training to MPE

Category	Type of training	Credit points	Comment
1	a) Training with conceptual intended participation of each participant (courses, workshops, tutorials, etc.)	1 point per training hour (45 min)	Previous certification and the number of points to be credited by the FAK.  max. 8 points / day or 4 points per 1/2 day
	b) Frontal lectures with discussion	1 point per lesson (45 min)	Max. 8 points / day e.g. 4 points / ½ Tag
	c) National and international congresses	8 CP / day or 4 CP/ halfday	Participation certificate mandatory. max. 40 points / year
2	a) Local, in-house continuing education including introduction of new technologies	1 point / exercise unit	Max. 10 points / year
	b) Structured interactive lessons via Internet, CD-ROM, qualified journals with written evaluation of learning success	1 point / exercise unit	Max. 5 points / year
	c) Internship for further education in a recognized institution	4 points / day	Max. 20 points / year
	d) Acting as a mentor for Medical Physics according to the RLMPE	Flat rate 5 points per candidate	Max. 10 points / year
3	a) Scientific publications in reviewed journals or textbook contribution	10 points per publication	Max. 30 points / year
	b) Other scientific contributions as author, co-author or speaker	5 points per contribution or presentation	Max. 15 points / year
	c) Participation as a member in an expert team, committee	3 points per committee per year	Max. 10 points / year
	d) Subject-specific teaching	5 points per semester week hour (15 lessons)	Max. 20 points / year
	e) Supervision of academic theses from the bachelor thesis level	2 points / Bachelor 4 points / Master 10 points / PhD	Proof of the completed work by means of a certificate
4	Credit for professional activity	50 points / year (full –time equivalent)	Max. 100 points

## A 3.2 List of points for evaluating the Continuous Professional Development for renewal

Kat.	Art der Fortbildung	Punktebewertung	Bemerkung
1	a) CPD with conceptual intended participation of each participant (courses, workshops, tutorials, etc.)	1 point per CPD hour (45 min) 1.5 points per CPD hour (45min) with successful participation and success control	Previous certification and the number of points to be credited by the FAK.  max. 12 points / day or 6 points / ½ day
	b) Frontal lectures with discussion	1 point per lesson (45 min)  1.5 points per lesson with success control (45min)	Max. 12 points / day  e.g. 6 points / ½ day
	c) National and international congresses	8 points / day or 4 points / ½ day	Participation certificate mandatory. max. 40 points / year
2	a) Local, in-house continuing education including introduction of new technologies	1 point per exercise unit	Max. 10 points / year
	b) Structured interactive lessons via Internet, CD-ROM, qualified journals with written evaluation of learning success	1 point per exercise unit	Max. 5 points / year
	c) Internship for further education in a recognized institution	4 points / day	Max. 20 points / year
	d) Acting as a mentor for Medical Physics according to the RLMPE	Flat rate 5 points per candidate	Max. 10 points / year
3	a) Scientific publications in reviewed journals or textbook contribution	10 points per publication	Max. 30 points / year
	b) Other scientific contributions as author, co-author or speaker	5 points per contribution or presentation	Max. 15 points / year
	c) Participation as a member in an expert team, committee	3 points per committee per year	Max. 10 points / year
	d) Subject-specific teaching	5 points per semester week hour (15 lessons)	Max. 20 points / year
	e) Supervision of academic theses from the bachelor thesis level	2 points / Bachelor 4 points / Master 10 points / PhD	Proof of the completed work by means of a certificate
4	Credit for professional activity	50 points / year (full –time equivalent)	Max. 100 points / 5 years

## Appendix 4: Authorization of Mentors

The authorization to act as a mentor is issued on application by the person wishing to become a mentor. The application should be addressed to the FAK. The following documents must be submitted with the application:

- a. The certificate conferring the status of 'Medical Physics Expert (ÖGMP)'
- b. Description of knowledge and experience the applicant has acquired in a field of medical physics (see Appendix 2).

After evaluating the documents submitted by the applicant, the FAK decides on the authorization and issues it.

The authorization to act as a mentor expires with the certification as a Medical Physics Expert or at the request of the holder.

## Appendix 5: Criteria for the Approval of Educational and Training Courses and Events

### A 5.1 Courses/Events for Training

The application for ÖGMP accreditation of training courses/events in medical physics can be obtained from the website of the ÖGMP ([www.oegmp.at](http://www.oegmp.at)) and should be addressed to the chairperson of the **FAK** of the ÖGMP, naming the subject area.

On application, the **FAK** evaluates whether the courses/events are suitable as part of the training of medical physicists. Courses/events that are organized by, or in cooperation with, the ÖGMP or an equivalent national or international professional society are generally accredited.

Courses at tertiary educational institutions are deemed to be recognized if at least 80% of their contents correspond to the content catalogue (Appendix 2) and the teaching time of the postgraduate University Course in Medical Physics.

When the certification committee decides to accredit a course/event, it defines

1. The number of **training points** and
2. The **subject areas (Appendix 2: Content Catalogue)**

No multipliers are applied to hours of courses in this category.

### A 5.2 Courses/Events for Advanced Training

The application for ÖGMP accreditation of advanced training courses/events in medical physics can be obtained from the website of the ÖGMP ([www.oegmp.at](http://www.oegmp.at)) and should be addressed to the chairperson of the **FAK** of the ÖGMP, naming the subject area.

On application, the **FAK** evaluates whether the courses/events are suitable as part of the advanced training [of medical physicists]. Courses/events that are organized by, or in cooperation with, the ÖGMP or an equivalent national or international professional society are generally accredited.

When the certification committee decides to accredit a course/event, it defines the number of **advanced training points**.

No multipliers are applied to hours of courses in this category.

### A 5.3 Courses/Events for Continuous Professional Development

The application for ÖGMP accreditation of continuous professional development courses/events in medical physics can be obtained from the website of the ÖGMP ([www.oegmp.at](http://www.oegmp.at)) and should be addressed to the chairperson of the **FAK** of the ÖGMP, naming the subject area.

On application, the **FAK** evaluates whether the courses/events are suitable as part of continuous professional development. Courses/events that are organized by, or in cooperation with, the ÖGMP or an equivalent national or international professional society are generally accredited.

When the certification committee decides to accredit a course/event, it defines the number of **CPD points**.

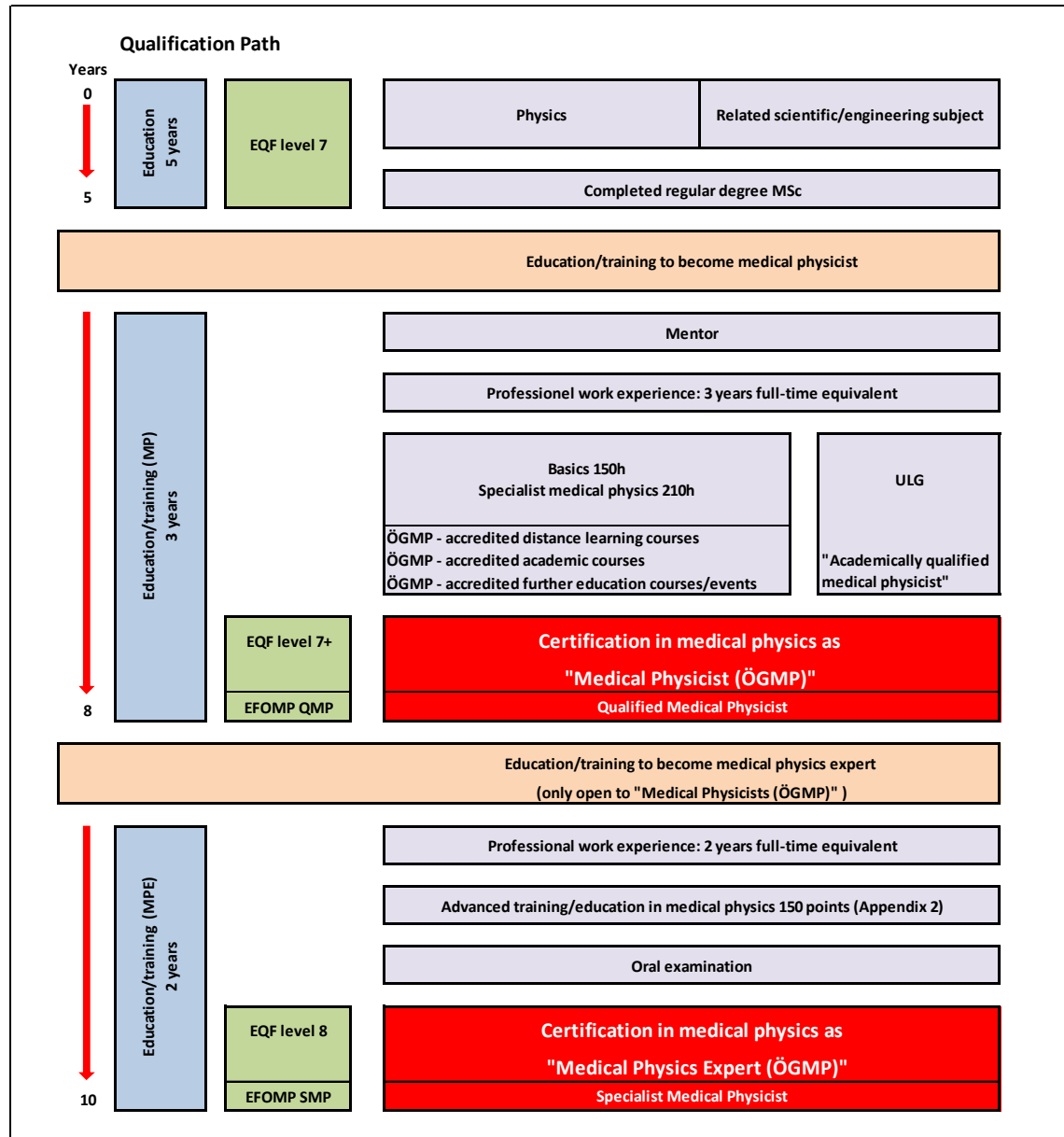
For continuous professional development points with a factor of 1.5 can be applied if the success control has been proven.

### A 5.4 Certificates of Participation

**Documents confirming participation** in a course/event must include the following information:

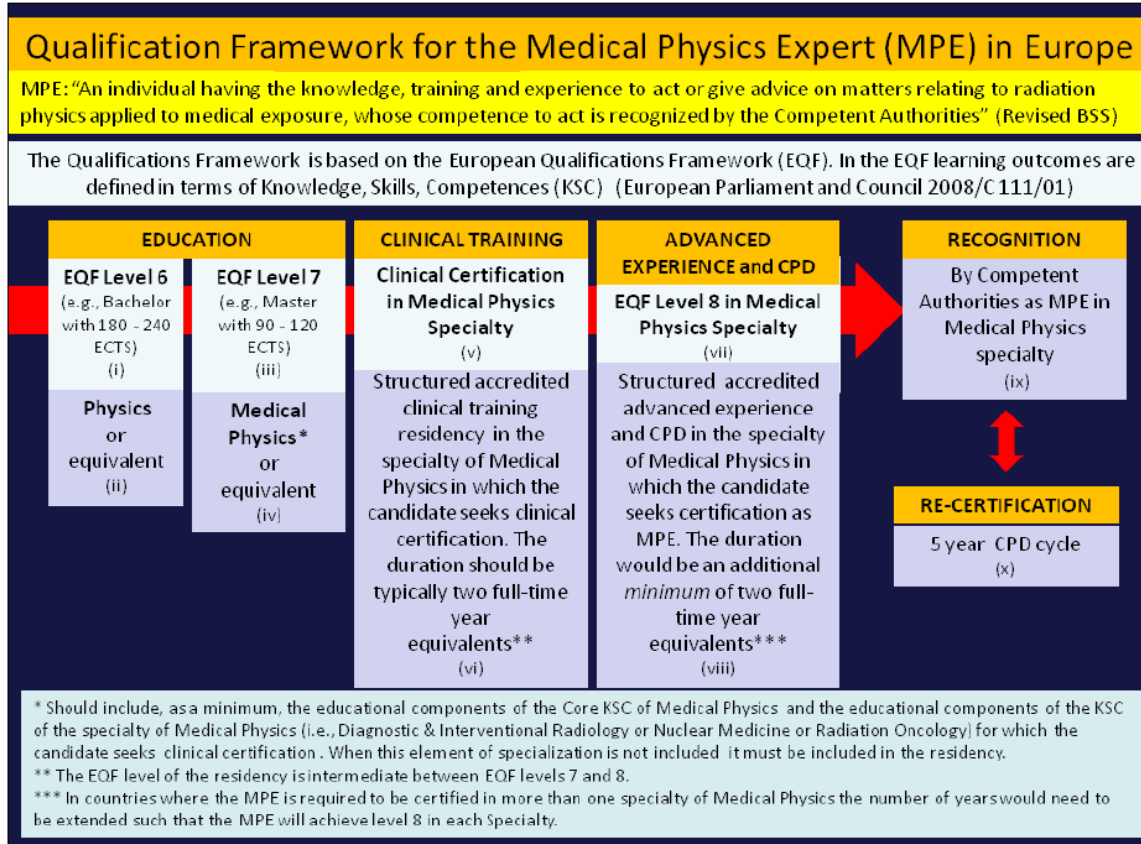
1. **General information** (organization/person holding the course/event, time, location, title of the course/event)
2. The **subject areas** accredited for the course/event (applies only to training to qualify as medical physicists)
3. **Training points, advanced training points** or **CPD points**
4. If applicable: assessment/examination results (e.g. passed successfully)

## Appendix 6: Pathways to Medical Physicists and Medical Physics Experts



For comparison: EUROPEAN GUIDELINES ON MEDICAL PHYSICS EXPERT  
(Radiation Protection No 174)

Figure 1: The Qualification Framework for the MPE in Europe





## Appendix 7: Certificate Medical Physicist (ÖGMP)



# Zertifikat

DIE ÖSTERREICHISCHE GESELLSCHAFT FÜR MEDIZINISCHE  
PHYSIK (ÖGMP)

erteilt  
hiermit

.....

die

## FACHANERKENNUNG FÜR MEDIZINISCHE PHYSIK

gemäß den Richtlinien der ÖGMP in der geltenden  
Fassung

und die Berechtigung, die Berufsbezeichnung

## Medizinphysikerin (ÖGMP)

zu führen.

Die Fachanerkennung gilt bis .....

Ausgefertigt am .....

**Der Vorsitzende der Gesellschaft**

**Der Vorsitzende der Kommission für  
die Fachanerkennung**



# Zertifikat

DIE ÖSTERREICHISCHE GESELLSCHAFT FÜR MEDIZINISCHE  
PHYSIK (ÖGMP)

erteilt  
hiermit

.....

die

## FACHANERKENNUNG FÜR MEDIZINISCHE PHYSIK

gemäß den Richtlinien der ÖGMP in der geltenden  
Fassung

und die Berechtigung, die Berufsbezeichnung

**Medizinphysiker (ÖGMP)**

zu führen.

Die Fachanerkennung gilt bis .....

Ausgefertigt am .....

**Der Vorsitzende der Gesellschaft**

**Der Vorsitzende der Kommission für  
die Fachanerkennung**

## Appendix 8: Certificate Medical Physics Expert (ÖGMP)



# Zertifikat

DIE ÖSTERREICHISCHE GESELLSCHAFT FÜR MEDIZINISCHE  
PHYSIK (ÖGMP)

erteilt  
hiermit

.....

die

## FACHANERKENNUNG FÜR MEDIZINISCHE PHYSIK

gemäß den Richtlinien der ÖGMP in der geltenden Fassung

und die Berechtigung, die Berufsbezeichnung

## Medizinphysik-Expertin (ÖGMP)

**Spezialgebiet:.....**

zu führen.

Die Fachanerkennung gilt bis .....

Ausgefertigt am .....

**Der Vorsitzende der Gesellschaft**

**Der Vorsitzende der Kommission für  
die Fachanerkennung**



# Zertifikat

DIE ÖSTERREICHISCHE GESELLSCHAFT FÜR MEDIZINISCHE  
PHYSIK (ÖGMP)

erteilt  
hiermit

.....

die

## FACHANERKENNUNG FÜR MEDIZINISCHE PHYSIK

**gemäß den Richtlinien der ÖGMP in der geltenden Fassung**

und die Berechtigung, die Berufsbezeichnung

## **Medizinphysik-Experte (ÖGMP)**

**Spezialgebiet:.....**

zu führen.

Die Fachanerkennung gilt bis .....

Ausgefertigt am .....

**Der Vorsitzende der Gesellschaft**

**Der Vorsitzende der Kommission für  
die Fachanerkennung**

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