Requirements for award of the FuseNet Certificate for EU Master Programmes in Fusion Science and Technology

FuseNet
The European Fusion Education Network
ASSOCIATION

1. Goals

The main goals of the FuseNet Master Certificate are:

- To define the canon of fusion education at the master level.

  Since fusion research is a broad and interdisciplinary field, where for example physics, mechanical and electrical engineering are key topics, the emphasis of a fusion master will be different from the standard physics or applied physics master.

- To set a high standard, which will be maintained throughout Europe.

  This will create more homogeneity in the educational programs on fusion, while still allowing sufficient flexibility for universities to have their own profile concerning specializations or teaching methods.

- To demonstrate the achievement of a polyvalent researcher, trained to work in an interdisciplinary, international research environment, typically in multicultural teams.

  The scientist awarded with the Certificate is able to absorb the newest technological advances, to work in a goal-oriented way, has a keen eye for the societal relevance and the socio-economic aspects of his/her research and is capable to place his/her research in a wider context.

- To make the specialization more visible.

  Fusion science and technology as a field of expertise already attracts good candidates, because of the combination of frontier science and technology with a clear societal value, ; recognizing the specialization with a dedicated certificate, makes the field even more visible and appealing for students.

2. Requirements

In order to obtain these goals, the requirements for the Master Certificate are the following:

1. Successful completion of an academic training program on fusion with at least 24 ECTS, which follows the guidelines detailed in the FuseNet document "Common Master educational goals".

2. Preparation and successful defense of a Master thesis representing an original piece of research work in plasma physics and/or fusion engineering, with a value of at least 24 ECTS.

If both conditions are met, candidates are eligible to award of a 'European Master Certificate in Fusion Science and Engineering' by the FuseNet Association.

3. Accreditation Procedure

The Academic Council of FuseNet (ACF), appointed by the Board of Governors of the FuseNet Association, is in charge to verify the fulfilment of the requirements and to deliver the Certificates.

The ACF sets two yearly deadlines for receiving applications for the Certificates: July 15 and December 15.

The ACF meets twice a year, around the end of September (live), and around the end of January (typically remotely, by videoconference), resulting in an advice to the FuseNet Board of Governors on the elegibility of the applicants that have send their application in time before the last deadline. The Board of Governors then decides on the applications.

The Certificates will be awarded by a ceremony planned by the Board of Governors of the FuseNet Association.

The Certificates will be requested and awarded at the end of the Master study cycle. However, the guidelines are made public on the web, so that applicants can verify that they comply with them from the beginning of their studies. The ACF is available for advice on the pertinence of program and individual theses, upon request.

Two approaches for the accreditation process are foreseen:

1. Institutional Accreditation of an entire Master Course/Network cycle/Master specialization, lasting for four years and simplifying the procedure for the accreditation of Master students of that Course/Network cycle. Accredited Institutions nevertheless need to apply for Certificates for their students, although with less detailed information than in the individual case.

2. Individual Accreditation, awarded to a single Master student of a Master Course/project (not globally accredited).

4. Application Procedure

All the procedures will be done via an ad hoc Fusenet web interface, available through:

- http://www.fusenet.eu/acf

In the following sections, you can find the list of the minimal requirements for the application packages.

4.1 Institutional Accreditation

- List of theses completed or ongoing at the same institution, with indication of thesis supervisors
- List of the courses, teachers' names and ECTS credits offered within the Institution's Master program
- Summary of the Institution's assessment rules
- Summary of the Institution's procedures

4.2 Accreditation of Master students from an accredited Institution

- Master thesis (pdf), in English
- CV of the Candidate, with final marks
- Presentation letter from the Master thesis supervisor, indicating the pertinence of the application
- Master Jury composition, including the members' affiliation and academic degree

4.3 Accreditation of Master students not from an accredited Institution

- Master thesis (pdf), in English
- CV of the Candidate, with final marks
- CV of the Master thesis supervisor
- Presentation letter from the Master thesis supervisor, indicating the pertinence of the application
- Master Jury composition, including the members' affiliation and academic degree
- Summary of relevant course work (including list of teachers), and ECTS credit record.