

Besluit

Toetsingsrapport met een positieve beoordeling van de aanvraag 'Toets nieuwe opleidingen' van de opleiding Master of Science in Fire Safety Engineering (master) van Universiteit Gent

datum	Samenvattend advies van de visitatiecommissie
3 maart 2015	De visitatiecommissie (hierna commissie) heeft vastgesteld dat de opleiding Master of Science in Fire Safety Engineering (master) van de Universiteit Gent
onderwerp	
Definitief toetsingsrapport en -	
besluit TNO	The Accreditation Organisation of the Netherlands and Flanders (NVAO) received a request
(003102)	for an initial accreditation procedure regarding the Master of Science in Fire Safety Engineering programme of Ghent University. NVAO convened an expert panel, which
bijlage	
2	studied the information available and discussed the programme with the institution's and programme's representatives. In this executive summary, the panel will give their main considerations and conclusions on the three standards of the NVAO Assessment framework for the initial accreditation of higher education programmes in Flanders.

Generieke kwaliteitswaarborg 1 – beoogd eindniveau

In the panel's opinion, the programme's objective to educate students to become experts in the fire safety engineering field is sound and realistic. The programme's discipline-specific learning outcomes are in line with this objective, comprising all elements, which graduates may need to attain this objective. The learning outcomes have been converted into a wide range of competencies. These specify in considerable detail the competencies the graduates are to master, such as in-depth knowledge about fire safety engineering, scientific skills, communication and cooperation skills, awareness of social and ethical aspects and specific capabilities in the engineering field.

Generieke kwaliteitswaarborg 2 – onderwijsproces

The programme meets the master's level, as the programme's intended learning outcomes conform to the official requirements of the Master of Science in Engineering Sciences (in Dutch: Master of Science in de Ingenieurswetenschappen) programmes in Flanders and to the dominant features of the Master of Science in Engineering Sciences-programmes of Ghent University. The panel regards the programme's focus on the performance-based design approach in fire safety engineering as a major contribution to the profile of the programme and as being proof of its innovative nature. In this respect, the programme will be very much comparable to other important programmes in the world in this domain. The programme definitely is of an academic level, stressing the scientific approach to subjects and problems in the fire safety engineering field. The support for the programme on the part of the professional field is very strong, so the panel observed.

Pagina 2 van 8 The panel welcomes this support, as it is an important sign of the relevance of the programme for the professional practice.

The panel regards the programme's organization to be solid and welcomes in particular the prominent role of the programme steering committee, which advises the programme director and monitors the contents and the delivery of the programme.

The programme's entry requirements and admission procedure are appropriate, but ought to be communicated more precisely. The programme management ensures the students, having different backgrounds, to have attained the same level after the first basic courses.

The curriculum not only matches the intended learning outcomes, but also is very relevant for the study of the fire safety engineering field. The curriculum focuses on core courses to acquaint students with the essentials of this discipline. In addition, the programme management has succeeded in constructing a predominantly academic programme, leaving ample space for professional aspects. The structure of the curriculum is adequate, leading the students from basic courses to advanced courses in fire safety engineering, culminating in the course Performance-Based Design and the Master's thesis. Lecturers meet on a regular basis, discuss the gaps between and the overlap of their courses and, in this way, ensure the coherence of the curriculum. The panel likes to add a few recommendations in this respect. Firstly, the electives should be oriented more towards those, relevant for this programme and the number of English-spoken electives ought to be increased. Secondly, information about the usefulness of taking internships ought to be intensified. Thirdly, the panel suggests to complete the course descriptions and scrutinize them for misplaced parts.

The teaching methods in the programme are suitable, being in line with the University's policy. As formal ex cathedra lectures are the dominant teaching method in the first year, the panel suggests to introduce more variation in teaching methods, to promote the students' active participation.

The lecturers' qualifications are very appropriate for this programme. Not only are they experts in the disciplines they will be teaching but most of them also have ample experience in doing research, having published widely in their discipline. In addition, they have adequate teaching competencies. Though appropriate measures have been taken to select and monitor the large number of visiting professors, the panel advises to remain attentive in this respect.

The panel regards the programme's facilities to be at an international level, allowing the students to gain practical experience. The students tend to visit the laboratories only a few times during their study. The number of computers, including specialized software, available for the students, is satisfactory.

The panel regards the internal quality assurance system, as exemplified by the programme steering committee, the advisory board and the system of students' evaluations to be up to standard. The professional field is adequately represented in the advisory board, meeting regularly with the programme management. The panel feels, however, the evaluations' outcomes could be communicated more effectively among the lecturers.

The University's newly adopted examination policy, which will apply to this programme as well, is a positive step towards improving the examination practice in the University's programmes. As this policy has not yet been fully implemented, the panel advises the programme management to take additional measures to do so. The examination methods have been well chosen, ensuring the matching with the programme's learning outcomes. As a suggestion for further improvement, the panel recommends to specify the examination methods more clearly in the course descriptions. The guidance by the supervisors and promoters in the Master's thesis process is very appropriate, enabling the students to proceed in the right direction. The assessment of the Master's thesis is very adequate as well, as this assessment is in the hands of an examination committee, composed of no less than four or five expert examiners. On the other hand, the panel advises the programme management to complement the thesis assessment form in order to clarify the criteria that allow differentiating between satisfactory, good or excellent.

Eindoordeel

Given these considerations, the panel advises NVAO to take a positive decision regarding the accreditation of the Master of Science in Fire Safety Engineering programme of Ghent University.

Overzicht oordelen van de commissie

Generieke kwaliteitswaarborg	Oordeel
1 Beoogd eindniveau	Voldoende
2 Onderwijsproces	Voldoende
3 Evaluatie	Voldoende
Eindoordeel	Voldoende

Aanbevelingen commissie

De NVAO onderschrijft de aanbevelingen van de commissie.

De NVAO stelt op basis van het adviesrapport van de commissie vast dat de externe beoordeling overeenkomstig het toepasselijke Toetsingskader nieuwe opleidingen hoger onderwijs Vlaanderen 2de ronde (25 januari 2013) tot stand is gekomen. De gevolgde werkwijze en procedure, alsook de geraadpleegde informatiebronnen zijn helder weergegeven.

De oordelen op de generieke kwaliteitswaarborgen zijn in het adviesrapport voldoende onderbouwd en overwogen en op zorgvuldige wijze neergelegd in een eindoordeel. De NVAO kan zich dan ook aansluiten bij de bevindingen en overwegingen voor alle generieke kwaliteitswaarborgen, zoals verwoord in het adviesrapport. De eindconclusie uit het adviesrapport wordt gevolgd.

De commissie heeft verklaard dat de voorgestelde domeinspecifieke leerresultaten in overeenstemming zijn met de niveaudescriptoren van het niveau 7 uit de Vlaamse kwalificatiestructuur.

De commissie adviseert de NVAO om de domeinspecifieke leerresultaten te valideren.

Betreffende de aanvraag toets nieuwe opleiding Master of Science in Fire Safety Engineering (master) van de Universiteit Gent.

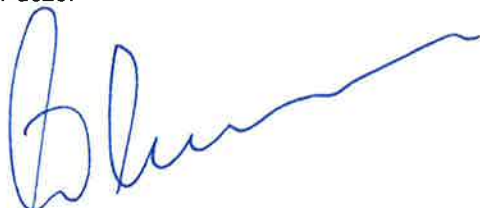
De NVAO,
Na beraadslaging
Besluit:

Met toepassing van de Codex Hoger Onderwijs, in het bijzonder Art. II.153 besluit de NVAO tot een positieve beoordeling van de aanvraag toets nieuwe opleiding Master of Science in Fire Safety Engineering (master) van de Universiteit Gent. De opleiding wordt aangeboden te Gent zonder afstudeerrichtingen.

Tevens valideert de NVAO de domeinspecifieke leerresultaten van de opleiding Master of Science in Fire Safety Engineering.

Den Haag, 3 maart 2015

De NVAO
Voor deze:



Dr. A.H. Flierman
(voorzitter)

¹ Het ontwerp van toetsingsrapport werd aan de instelling bezorgd voor eventuele opmerkingen en bezwaren. De instelling heeft geen opmerkingen en/of bezwaren geformuleerd op het ontwerp van toetsingsrapport.

Naam, adres, telefoon, e-mailadres, website instelling	Universiteit Gent Sint-Pietersnieuwstraat 25 9000 GENT
Status instelling	ambtshalve geregistreerd
Naam associatie	Associatie Universiteit Gent
Naam, functie, telefoon, e-mail contactpersoon	Kristiaan Versluys hoofd Directie Onderwijsaangelegenheden 09 331 00 21 kristiaan.versluys@ugent.be
Naam opleiding (graad, kwalificatie, specificatie)	Master of Science in Fire Safety Engineering
Niveau en oriëntatie	Master of Science
Bijkomende titel	Burgerlijk ingenieur
(Delen van) studiegebied(en)	Toegepaste wetenschappen
Opleidingsvarianten: – Afstudeerrichtingen – Studietraject voor werkstudenten	Niet van toepassing
Onderwijstaal	Engels
Vestiging(en) opleiding	Gent
Studieomvang (in studiepunten)	120
Nieuwe opleiding voor Vlaanderen	Ja
Aansluitingsmogelijkheden en mogelijke vervolgopleidingen	Bachelor of Science in de ingenieurswetenschappen: bouwkunde; Bachelor of Science in de ingenieurswetenschappen, afstudeerrichting: bouwkunde; Bachelor of Science in de ingenieurswetenschappen: chemische technologie en materiaalkunde; Bachelor of Science in de ingenieurswetenschappen, afstudeerrichting: chemische technologie; Bachelor of Science in de ingenieurswetenschappen, afstudeerrichting: materiaalkunde; Bachelor of Science in de ingenieurswetenschappen, afstudeerrichting: chemie en materialen; Bachelor of Science in de ingenieurswetenschappen: werktuigkunde-elektrotechniek; Bachelor of Science in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde, nevenrichting elektrotechniek; Bachelor of Science in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde-elektrotechniek; Bachelor of Science in de ingenieurswetenschappen: architectuur.

The programme management drafted the programme's discipline-specific learning outcomes. According to these learning outcomes, the graduates should be able to:

- Demonstrate knowledge of and understanding in fire safety engineering, including both broad scientific knowledge of the field and substantially deeper knowledge of at least one subfield.
- Possess deeper insight into current research and development work in fire safety engineering.
- Demonstrate advanced knowledge of and understanding in thermodynamics and fluid mechanics.
- Demonstrate basic knowledge of and understanding in structural engineering.
- Critically and systematically integrate knowledge and analyze, assess and deal with complex fire safety engineering related phenomena, issues and situations within specified time limits, even when limited information is available.
- Present and discuss conclusions on the basis of scientifically founded knowledge and arguments, in dialogue with different groups, orally and in writing, in national and international contexts.
- Demonstrate skills required to participate in research and development or to work in other specialized professional contexts.
- Assess performance-based design in the context of fire safety engineering, taking into account relevant human behavior, scientific, social, economic and ethical aspects, and demonstrate awareness regarding ethical aspects in research and development.
- Demonstrate insight in the potential and limitations of fire safety engineering, taking into account user responsibility.
- Demonstrate the ability to identify the need to expand and develop knowledge.

- Prof. dr. em. René Van den Braembussche, Honorary professor von Karman Institute (idem);
- Ir. Jan Bens, Directeur-generaal van het Federaal Agentschap voor Nucleaire Controle (idem);
- Prof. dr. Peter Van Petegem, gewoon hoogleraar onderwijskunde, Universiteit Antwerpen (idem) (onderwijsdeskundige);
- Dhr. Dieter Van Isterdael, masterstudent werktuigkunde-elektrotechniek Vrije Universiteit Brussel (idem) (student-lid).

De commissie werd bijgestaan door:

Drs. Lisette Meijer, beleidsmedewerker NVAO, procescoördinator;

Drs. W.J.J.C. Vercouteren, secretaris.

Alle commissieleden, de procescoördinator en de secretaris hebben een onafhankelijkheids- en geheimhoudingsverklaring en ondertekend waarmee zij tevens instemmen met de NVAO gedragscode.