

**Research Master's Programme**  
**Arts and Culture: Cultures of Arts, Science**  
**and Technology**

**Faculty of Arts and Social Sciences,**  
**Maastricht University**

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This report was finalized on 4 July 2016.



# Report on the research master's programme Arts and Culture: Cultures of Arts, Science and Technology of Maastricht University

This report takes the NVAO's Assessment Framework for Limited Programme Assessments as a starting point (19 December 2014).

## Administrative data regarding the programme

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### Research master's programme Cultures of Arts, Science and Technology

Name of the programme:	Arts and Culture: Cultures of Arts, Science and Technology
CROHO name of the programme:	Kunst- en cultuurwetenschappen / Arts and Culture
CROHO number:	60829 (per September 2012)
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	120 EC
Location:	Maastricht
Mode(s) of study:	full time
Language of instruction:	English
Expiration of accreditation:	13-03-2017

The visit of the assessment panel Cultures of Arts, Science and Technology to the Faculty of Arts and Social Sciences of Maastricht University took place on 5-6 April 2016.

## Administrative data regarding the institution

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Name of the institution:	Maastricht University
Status of the institution:	publicly funded institution
Result institutional quality assurance assessment:	positive

## Composition of the assessment panel

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The NVAO approved the constitution of the panel on 10 March 2016. The panel that assessed the research master's programme Arts and Culture: Cultures of Arts, Science and Technology (CAST) consisted of:

- Prof. Nelly Oudshoorn (chair), Professor Emeritus of Technology Dynamics and Healthcare at the University of Twente;
- Prof. Thomas Gieryn, Rudy Professor Emeritus of Sociology at Indiana University (US);
- Prof. Robert Zwijnenberg, Professor of Art and Science Interactions at Leiden University;
- Prof. Roland Bal, Professor of Healthcare Governance at Erasmus University Rotterdam;
- Jan-Yme de Boer BA, master's student in Philosophy of Science, Technology and Society at the University of Twente.

The panel was supported by dr. Fiona Schouten, who acted as secretary.

Appendix 1 contains the curricula vitae of the panel members.

## **Working method of the assessment panel**

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### *Preparation*

Before the assessment panel's site visit to Maastricht University, the secretary received the programme's critical reflection. She sent it to the panel after checking it for completeness of information. Upon reading the critical reflection, the panel members formulated questions and preliminary findings. The panel also read a selection of fifteen master's theses and the accompanying assessment forms. This selection was made by the panel's chair, in cooperation with the secretary, from a list of 30 graduates from the last four academic years. The chair and secretary took the distribution of grades into account and ensured the theses showed variation in content and assessors.

The secretary composed a schedule for the site visit, which she adapted after discussing it with CAST representatives. Prior to the site visit, the programme selected representative partners for the various interviews. Interviews were planned with students, teaching staff, management, alumni, the Programme Committee and the Board of Examiners. See appendix 5 for the definitive schedule.

### *Site visit*

At the start of the site visit, the panel held a preparatory meeting during which it was instructed regarding the assessment framework. The panel also discussed its working method and its preliminary findings, and reflected on the content and use of the programme's domain-specific framework of reference (appendix 2).

During the site visit, the panel examined requested materials. An overview of these materials is given in appendix 6. The panel provided students and lecturers with the opportunity to speak informally with the panel outside the set interviews. One person was interviewed by the panel during this consultation hour.

The panel used the final part of the visit to discuss its findings in an internal meeting. The visit was concluded with a public presentation by the panel's chair, in which she expressed the panel's preliminary impressions and general observations.

### *Report*

After the site visit, the secretary wrote a draft report based on the assessment panel's findings. Subsequently, she sent it to the assessment panel for feedback. After processing the panel members' feedback, the secretary sent the draft report to the university in order to have it checked for factual irregularities. The secretary discussed the ensuing comments with the panel's chair and adapted the report accordingly before its finalisation.

### *Decision rules*

In accordance with the NVAO's Assessment framework for limited programme assessments, the panel used the following definitions for the assessment of the standards and the programme as a whole.

**Generic quality**

The quality that can reasonably be expected in an international perspective from a higher education bachelor's or master's programme.

**Unsatisfactory**

The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.

**Satisfactory**

The programme meets the current generic quality standards and shows an acceptable level across its entire spectrum.

**Good**

The programme systematically surpasses the current generic quality standard.

**Excellent**

The programme systematically well surpasses the current generic quality standard and is regarded as an international example.

## Summary judgement

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### *Intended learning outcomes*

The research master's programme Arts and Culture: Cultures of Arts, Science and Technology (CAST) aims to train its students in doing research into the roles of and interrelations between science, technology and the arts in modern culture. Its objective is to deliver researchers aiming for an academic career or a position at a non-academic, knowledge-intensive institute. According to the assessment panel, the programme's intended learning outcomes correspond with this ambition. They are in line with national and international standards and reflect the international Dublin descriptors. The panel judges the intended learning outcomes to be fitting for a research master's programme: CAST graduates are expected to function as independent, interdisciplinary researchers. It also considers the intended learning outcomes to reflect the particular domain of CAST, referring explicitly to research methods from the humanities and qualitative social sciences as well as to an interdisciplinary skill set. The panel considers CAST's profile to be distinct and unique. At the same time, it concludes that the programme does not succeed in clearly announcing its profile, which integrates arts, science and technology. It recommends the programme to rephrase its profile in such a way that it reflects CAST's Science and Technology Studies-based approach towards the field of the arts.

### *Teaching-learning environment*

According to the panel, the curriculum of CAST incorporates all of the programme's intended learning outcomes in a highly coherent and structured manner. The result is a challenging curriculum that thoroughly prepares students for the various facets of an academic career. The internship is a formative experience and prepares students well for eventual involvement in the broader academic world. The curriculum stands out through its integration of skills training, methodology and theory. It also distinguishes itself in the way it balances the arts with science and technology. The programme is demanding, yet feasible. This is due to the fact that students become a part of an intimate research community, and to the intensive system of study guidance and supervision. The panel is impressed with the sophisticated selection procedure, which carefully looks for a good match between prospective students and programme. Its downside, the low number of students, ought to be addressed by enhancing profiling and PR strategies. In the eyes of the panel, the teaching staff consists of excellent researchers who are dedicated to the programme. It finds that a well-functioning system of quality assurance is in place, which involves all stakeholders and provides international calibration through an International Advisory Board.

### *Assessment*

The panel considers the programme's assessment system to be well-designed and coherent. The system departs from the principle of authenticity of assessment: it attempts to reflect actual academic practices. The panel considers this principle entirely fitting for a research master's programme, although it recommends that the programme address the predominance of written assessments. It is also positive about the fact that the testing of all intended learning outcomes is ensured, even if this means a temporary departure from the authenticity principle. The panel is pleased with the proactive Board of Examiners (BoE) and the fact that the CAST programme ensures international calibration through regularly inviting the International Advisory Board to sample CAST theses. The panel is of the opinion that the CAST assessment system is a best practice with clear quality and effectiveness.



*Achieved learning outcomes*

The panel judges the CAST master's theses to demonstrate the quality which may be expected of a research master's programme, particularly considering the fact that they are to be seen as a stepping stone towards a journal publication rather than as an actual journal article. The panel also agrees with the way the theses were assessed. According to the panel, the theses are imaginative and demonstrate integrative analytical and methodological skills. At times, their range or setup goes beyond the scope of CAST. Thesis subjects vary greatly, but alignment with the expertise of the supervisors is ensured. CAST graduates' employability is excellent and a large majority of CAST alumni end up in research positions. The professional trajectory of CAST graduates leads them into very diverse fields and institutional settings, which demonstrates their versatility.

The panel assesses the standards from the *Assessment framework for limited programme assessments* in the following way:

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	good
Standard 3: Assessment	good
Standard 4: Achieved learning outcomes	good
General conclusion	good

The chair and the secretary of the panel hereby declare that all panel members have studied this report and that they agree with the judgements laid down in the report. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: 4 July 2016



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Prof. Nelly Oudshoorn, chair



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Dr. Fiona Schouten, secretary

## Description of the standards from the Assessment framework for limited programme assessments

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The research master's programme Arts and Culture: Cultures of Arts, Science and Technology (CAST) started in 2006 and belongs to the Faculty of Arts and Social Sciences (FASoS) of Maastricht University. Of this faculty's four research programmes, two contribute to CAST: Maastricht University Science, Technology and Society Studies (MUSTS) and Arts, Media and Culture (AMC). While AMC researchers are involved in the programme, it mainly builds on MUSTS. CAST shares its Programme Committee with two of the faculty's other master's programmes. The Board of Examiners is shared by all the faculty's programmes.

### **Standard 1: Intended learning outcomes**

The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

#### **Explanation:**

As for level and orientation (bachelor's or master's; professional or academic), the intended learning outcomes fit into the Dutch qualifications framework. In addition, they tie in with the international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme. Insofar as is applicable, the intended learning outcomes are in accordance with relevant legislation and regulations.

### **Findings**

The CAST research master's programme aims to train its students in doing research into the roles of science, technology and the arts in modern culture, as well as into their interrelationships. The programme's final objective is to deliver researchers ready to embark on either a PhD position or a position at a non-academic, knowledge-intensive institute.

The programme translated the objectives and aims into a set of five intended learning outcomes or final qualifications, which each connect to a subset of learning objectives (see appendix 3). The panel established that these intended learning outcomes fall within the subject-specific framework of reference for regular programmes in Arts and Culture, as well as within the reference framework for research master's programmes in Arts and Culture (see appendix 2). As a result, they are in line with national and international standards and reflect the international Dublin descriptors.

The panel studied the intended learning objectives and concluded that their level and orientation fully reflect the programme's research-oriented nature. CAST graduates are expected to be able to function as independent, interdisciplinary researchers who can contribute to and function in an unfamiliar research environment or team. They are expected to be fully aware of their own position as scholars and of the ethical and social responsibilities this position entails. Furthermore, they are expected to be able to autonomously contribute to their own academic field as well as to societal debates related to their expertise. In the eyes of the panel, these intended learning outcomes clearly and unambiguously reflect the level that may be expected of graduates of a research master's programme.

In the eyes of the panel, the content of the intended learning outcomes reflects the particular domain of CAST, which combines the arts with the field of Science and Technology Studies (STS). The panel notes that the second intended learning outcome ('Research competencies') exhaustively lists all methodologies which belong to the domain of CAST, such as conceptual analysis, field ethnography and archival research. They also explicitly mention that graduates will only have mastered qualitative, not quantitative, methods from the social sciences. The

panel considers this to be in line with the programme's particular profile (see below). It is pleased to note that the first intended learning outcome refers to an interdisciplinary skillset, and that 'interactional expertise', a level of understanding which enables CAST graduates to think along with the artists, scientists and engineers they study, is among its learning objectives.

The panel considers the profile of the programme, which is reflected in the intended learning outcomes, to be distinct and unique. At the same time, it concludes that this profile lacks a sharp delineation and is difficult to put into words. Both the critical reflection and the interviews with programme management, students, alumni and teaching staff during the site visit clearly demonstrated to the panel that the combination of arts and STS is at times an uncomfortable one. Their connection was expressed by management and teaching staff in such terms as 'interdisciplinarity', 'practices', and 'imagination'. In the eyes of the panel, these terms are generic and at times vague. The impression created was that of an unhappy marriage of two domains, resulting in either STS with arts 'grafted on' or in art analysis with an 'STS-ish' angle, as one student expressed it.

Upon studying the critical reflection and interviewing programme management, staff and students, the assessment panel concluded that the programme's profile ought to be redefined. Rather than trying to marry two knowledge domains, CAST provides its graduates with an interdisciplinary skillset based in, but venturing beyond, the field of STS. It gives them a perspective through which all three of CAST's 'pillars' (science, technology and the arts) can be approached, both separately and in conjunction. As a result, CAST is not a traditional STS programme. It attempts to open up this field, to bring the specific STS concepts, perspectives and preoccupations into another domain and to create interactions between the domains. According to the panel, the attempt to construct a bridge towards the specific domain of the arts can be considered the unique approach of CAST in Maastricht.

The panel is convinced that the programme would greatly benefit from a clear and well-defined expression of this profile, enabling it to advertise its specificity to prospective students (see Standard 2). It therefore urges the programme to formulate its profile in such a way that this distinctive character is displayed. In a previous midterm review (2014), the programme was advised by the review panel to explain its nature through the use of examples of 'typical CAST themes'. While the present panel appreciates this use of examples, it considers an additional rephrasing of the profile of CAST a necessity. In that way, examples can clarify the message instead of carrying it.

### **Considerations**

According to the panel, the programme's intended learning outcomes clearly reflect the level and orientation of a research master's programme. They are in line with national and international standards. The intended learning outcomes also reflect the specific profile of the CAST programme, referring explicitly to research methods from the humanities and qualitative social sciences as well as to an interdisciplinary skillset. The panel concludes that the programme does not succeed in clearly delineating and announcing its profile, which aims to integrate arts, science and technology. It recommends that the programme move away from description in generic terms or through the use of examples. Instead, it urges the programme to rephrase its profile in such a way that it reflects the programme's STS-based approach towards the field of the arts.

## Conclusion

*Master's programme Cultures of Arts, Science and Technology*: the panel assesses Standard 1 as 'satisfactory'.

### Standard 2: Teaching-learning environment

The curriculum, staff and programme-specific services and facilities enable the incoming students to achieve the intended learning outcomes.

#### Explanation:

The contents and structure of the curriculum enable the students admitted to achieve the intended learning outcomes. The quality of the staff and of the programme-specific services and facilities is essential to that end. Curriculum, staff, services and facilities constitute a coherent teaching-learning environment for the students.

## Findings

### *Curriculum*

The two-year research master's programme in Cultures of Arts, Science and Technology (CAST) begins with a series of courses that are taught consecutively in the first year. These core modules combine the teaching of concepts, theories and developments within the field with methodology training. Thus, course 1A, 'Entering the Field' (12 EC) provides students with an overview of CAST approaches and theories, and trains them in qualitative interviewing as well as conceptual analysis. Core module 1B, 'The Rules of the Game' (12 EC), discusses the methods relevant to CAST and combines this with ethnographic and historical methodology. 1C deals with 'Changes in the Research System' (6 EC) and trains students in writing a research proposal. In 1D, 'Researching the Cultures of Arts, Science and Technology' (12 EC), interdisciplinary issues are linked to rhetorical, narrative, and discourse analysis.

After completing the core modules, students work in teams on a joint research project (core module 1E, 12 EC), producing a scholarly outreach product targeted at a wider audience. Over the course of the first year, students also follow two modules in research reflection of 3 EC each. One entails the preparation of the research internship at the beginning of the second year through writing a proposal and establishing contacts with the research group in question. The other consists of attendance of and participation in research colloquia held within the two research departments that contribute to the CAST programme: MUSTS and AMC.

The second year sets off with a 16-week research internship (24 EC) in a different, typically foreign university or knowledge-intensive institute. After this, students embark on their final research project (30 EC), during which they write their master's thesis. The students simultaneously participate in a thesis seminar (6 EC), where they discuss their progress with other students and staff, and with the programme director on a bi-weekly basis. Some of these sessions take the shape of extra master classes or a guest lecture by a visiting scholar. The thesis seminar also includes a session on 'Life after CAST', which helps students prepare for entering the job market.

The panel studied the description of the curriculum in the critical reflection and interviewed students, alumni, teaching staff and programme management on the subject. It concluded that the curriculum incorporates all of the programme's intended learning outcomes in a highly coherent and structured manner. Substantive competencies relating to the field of CAST, its theories and concepts are chiefly acquired in the core modules, while research skills and integrative competencies are present all through the curriculum. Students reflect on their

work throughout the programme and present it regularly to the CAST research community. Communication to a non-scholarly audience is central in the joint project.

The panel also considers the curriculum to evolve in a logical way. It requires increasing autonomy of the students in doing research. After ‘entering the field’ and getting acquainted with it through the projects and lectures of the core modules, they move on to a joint project followed by an individual internship and a final thesis. Knowledge acquisition and skills training take a variety of forms, ranging from seminars, lectures and workshops to symposia, peer review sessions and presentations. Students acquire hands-on experience with various methods and learn by doing. According to the panel, the result is a challenging and coherent curriculum that thoroughly prepares students for the various facets of an academic career.

Preparation for academia is present throughout the curriculum, but most manifestly so in the research internship. During the site visit, the panel was struck by the enthusiasm of both teaching staff and students regarding this experience. Set up as a project independent of the master thesis, the internship is the students’ first leap into the world they are set to enter after graduating from the CAST programme. During the internship, they work on a personalised research project in unfamiliar surroundings. In the process, they enter into conversation with scholars from other fields and gain a keen awareness of their own background as CAST researchers. As a formative experience, the internship proves to be of clear value. One CAST alumna described the experience as ‘not so very different from starting out as a PhD student’. The panel is convinced that the research internship contributes greatly to the academic training of CAST students.

In the eyes of the panel, the CAST curriculum distinguishes itself through the thoroughly integrated way in which its various aspects are presented, combined and taught. This is particularly visible in the core modules. For instance, module 1A (‘Entering the field’) requires students to write a review article. In the process, they get to know the academic field and learn about its concepts, topics and methodologies. In their paper, the students sketch the state of the art in the field and reflect on tensions between methodologies and concepts (concept analysis). They also interview a CAST teacher on his or her background, research and view on the interdisciplinary field (qualitative interviewing) and present and interpret the acquired data in their paper. The panel considers this interweaving of training in research skills, methodology and theory an impressive feat and one worthy of praise.

The panel is equally positive about the way the programme balances arts and STS skills and content. The panel members learned from the critical reflection and from the interview with the Programme Committee during the site visit that the programme previously strongly leaned on STS. This led to a weaker presence of the arts in the curriculum, particularly in the first two core modules (1A and 1B). After student complaints and a recommendation by the 2010 assessment panel, this imbalance was rectified. The various sessions of each core module are now taught by a selection of teachers representing both the arts and the STS currents within CAST. The panel is pleased with the way in which these fields are now integrated in the curriculum. It names as a clear example the 2015-2016 joint research project module, 1E, which approaches the theme of art conservation from a vantage point which combines the impact of technology on a cultural practice with considerations of the authenticity of works of art in light of the media which transmit them.

#### *Feasibility*

Over a two-year period, CAST requires its students to develop into researchers at a PhD entry level. They are to acquire a thorough knowledge of the field, advanced research skills,

an academic attitude and an ability to venture into new domains and research groups. As a consequence, the programme is demanding. Students are told at the beginning of their master's programme that they can expect to spend about 40 hours a week on their studies. However, this can vary according to the specific choices of the students and the phase they are in.

The feasibility of the programme is ensured in various ways. One of these is the programme's intimate setup. In their first-year courses, students are taught by a large majority of CAST's twenty staff members and become acquainted with their research. As a result, students become familiarized with the CAST research community right from the beginning of the programme – and vice versa. At the end-of-module colloquia, various CAST staff members are present and this usually includes the Director of Studies. In their interviews with the panel, students and alumni praised the intimate atmosphere and the openness of all CAST staff members and supervisors, which they consider one of the programme's greatest assets. They felt at liberty to approach staff members when they encountered problems or were in need of advice. They also pointed out that their familiarity with staff members' research and specialties was helpful and inspiring when they had to decide on their thesis topic.

Another way in which feasibility is ensured by the programme is the system of supervision and tutoring. In the first year, the chief supervisory task lies with the Director of Studies. He or she keeps a close watch on the students' progress and regularly meets with them individually. In the second year, a master-apprentice model is introduced: students are coupled with senior researchers and become temporary members of their research groups. Students begin this phase by going on a research internship. Supervision during this internship is ensured by the direct involvement of the Director of Studies, who helps the student select a research group and establishes the first contacts. The Director of Studies thus ensures that the students have the local supervision of a suitable 'master' to whom they are apprentice.

While writing their thesis, students are supervised by a CAST researcher-teacher. From its interviews with students and alumni, the panel concluded that these supervisors spend ample time and effort on the CAST students. CAST staff members are allotted 32 hours per student they supervise, which allows them to do so intensively. Students praised the involvement of their supervisors, who entered into frequent contact with them and sent them articles, suggestions or other useful information independent of regular contact hours. They also stated that they felt they were taken very seriously and treated 'as if we were junior staff members', as one of them phrased it. During their thesis trajectory, additional tutoring is provided by the Director of Studies, who teaches the thesis seminar and monitors progress both collectively and in individual sessions.

On the whole, the panel considers student supervision and tutoring to be of a very high level within the CAST programme. The progress of the students is always closely monitored. The panel agrees with concerns raised in the previous (2010) evaluation of the programme that the Director of Studies plays a pivotal role in student supervision, but does not see this as a necessarily problematic point. The function of the Director of Studies is to be the 'embodiment' of CAST, and this almost paternal role contributes to the intimate atmosphere cherished by the students. A recent change in Directors of Studies showed that this role, though demanding, is not tied to one person alone.

### *Student intake and selection policy*

The critical reflection clearly shows that CAST's main concern is the low student intake. Besides its two-year master's programme, CAST offers a one-year fast track (consisting of courses 1A and 1B, the thesis and the thesis seminar) for students with a relevant MA degree and high grades. Due to changes in the Dutch grant system, the option of a second master's has become much less attractive to students. Possibly in part as a result of this, student numbers have declined; the 2015 cohort is particularly small with only 5 students.

During the site visit, it became clear to the panel that this limited intake is partly due to the selection policy of the programme. Usually, between 30 and 50 students apply for the programme (in 2015, 43 did). The admissions board, consisting of the Director of Studies and two CAST teachers, selects students based on various criteria. First of all, students are to have a BA grade average of 7.5 or higher. Secondly, they must be able to demonstrate an interest in science, technology and the arts. Their motivation letters must also express affinity with doing research and writing samples that show a high quality and sufficient command of the English language. The admissions board members interviewed by the panel during the site visit described this selection procedure as a careful matching process in which the interests and expectations of the prospective student are mapped, discussed and evaluated at length. If necessary, the prospective student is asked to do additional assignments.

The panel considers this selection policy to be a sophisticated one. It considers the selection of suitable, motivated and research-oriented students who demonstrate to possess the necessary skills essential for the success and quality of a research master's programme. It therefore applauds the CAST management for continuing this careful process even when the drop in student numbers might suggest the option of 'lowering the bar'. CAST's concern with quality is laudable.

At the same time, it has become evident to the panel that a small cohort size negatively affects the quality of the programme. In a curriculum where peer review is important, a lack of peers can impact the learning trajectory of the individual students. The panel is therefore glad to see that the programme has begun to look for new ways to attract students and draw attention to CAST. Whether through a joint degree with a foreign university, a new campaign or website or any other option, the panel agrees with the programme management that PR is key in ensuring the viability of the programme. The panel urges the programme to actively search for students who are 'perfect matches', both nationally and internationally. It considers a clear phrasing of the profile of CAST (see Standard 1) essential in accomplishing this, as well as highlighting the programme's assets: intimacy, supervision, and staff quality.

### *Teaching staff*

In 2011, both MUSTS and AMC were assessed in a research review. While AMC was awarded a good score on quality and productivity and received an excellent and a very good score on relevance and viability, MUSTS (then STS) was judged excellent on all aspects. The CAST research master's programme draws mainly on the latter programme, while employing various researchers from the former.

The panel considers the teaching staff of CAST to consist of excellent researchers. Among the researchers who contribute to the programme are top scholars in STS or science and technology-related research communities worldwide. All teachers of CAST hold a PhD degree, and 95% obtained a BKO teaching qualification.

The panel is not only impressed with the scientific quality of the teaching staff, but also with their involvement in the programme and with the students. As mentioned earlier, supervision and tutoring are taken very seriously by all staff members. The programme requires staff members to work together in modules and contribute to one another's classes, which results in an ongoing dialogue about the programme among staff members. The panel finds that the intimate atmosphere and the well-structured and smoothly functioning curriculum testify to the dedication of all staff members.

#### *Quality assurance system*

CAST shares its Programme Committee (PC) with two other master's programmes in FASoS. The PC examines the operations of the programme and forms a platform for students and teachers who feel in need of mediation or want to lodge complaints. The student members actively approach their fellow students and ask them for feedback on the programme in operation. The PC submits an annual report to the Associate Dean of Education, which is then discussed in meetings between the Associate Dean and the various FASoS programme directors. The Associate Dean is also present at a meeting of the chairs of the various programme committees in the faculty. Furthermore, the PC meets with the CAST Director of Studies twice a year.

The PC thus has the capacity to provide the programme and faculty management with ongoing feedback. In the past, the PC raised such issues as the lack of emphasis on arts in the curriculum and a lack of interaction and alignment between tutors. This resulted in a stronger arts focus in the curriculum and a yearly tutor meeting. The PC also alerted the programme management to the need to clarify in which ways the various modules built on one another. The programme board followed up on this suggestion, which led to more positive evaluations. In the eyes of the panel, the PC functions well in assuring the programme's quality and plays an active role in advising the faculty and programme management.

Apart from the PC, CAST has both an external advisory board consisting of alumni and an International Advisory Board (IAB). The latter is composed of international scholars. Its function is to review CAST's internal quality system and provide international calibration of the programme. Over the past decade, this board met every 2-3 years to study evaluations, reports and samples of students' work. The IAB was also involved in organizing the 2014 midterm review. The panel is positive about this advisory board. It appreciates the fact that the programme acted upon advice from the 2010 assessment panel in making sure that its members come from sufficiently varied international and academic backgrounds.

#### **Considerations**

According to the panel, the curriculum of the CAST research master's programme is entirely in line with the programme's intended learning outcomes. The panel sees the curriculum as thoroughly coherent and finds that it builds up logically towards PhD entry level. The research internship stands out as a formative experience that gives students a taste of their possible future. The curriculum distinguishes itself through its complete integration of training in content, methodology and research skills. It also provides a convincing balance of arts and STS elements between as well as within individual modules. The panel considers the demanding curriculum feasible due to the intimate research community into which students are introduced, and the intensive study guidance, supervision and support system in which the Director of Studies plays a pivotal role. The panel is impressed with the sophisticated selection procedure, which carefully looks for a good match between prospective students and programme. Its downside, the low number of students, ought to be addressed by creating a clear profile for CAST and communicating it strategically. The panel is also impressed with



the excellent quality of the teaching staff and the individual teachers' dedication to the programme. It finds that a well-functioning system of quality assurance is in place, which involves all stakeholders. The active Programme Committee is complemented by an alumni board and a CAST-specific International Advisory Board, which provides international quality calibration.

## Conclusion

*Master's programme Cultures of Arts, Science and Technology*: the panel assesses Standard 2 as 'good'.

### Standard 3: Assessment

The programme has an adequate assessment system in place.

#### Explanation:

The tests and assessments are valid, reliable and transparent to the students. The programme's examining board safeguards the quality of the interim and final tests administered.

## Findings

### *Assessment system*

The CAST assessment system is organized according to a clearly formulated principle. The critical reflection refers to it as the 'principle of authenticity of exams'. Point of departure is a 'natural experience': the exams are to reflect the forms of output routinely assessed in academic life.

In line with the authenticity principle, CAST assessment is formative or summative in nature depending on how the output is evaluated in a real academic environment. For instance, oral presentations are assessed formatively, since in academic life researchers will not receive formal feedback on a conference presentation. Peer review sessions among students are also formative forms of assessment within CAST, since they represent discussion among colleagues within a research group. Following the same logic, articles or research proposals are assessed summatively, since in academic life they are formally evaluated by peers.

The panel is impressed with the authenticity principle as a focal point of the system of assessment. The focus on forms of assessment which reflect academic life makes assessment logical and coherent throughout the programme. This focus also fits the research master's programme profile of CAST: it prepares students for a future in academia. The panel's only concern is that as a result of this focus on authenticity, CAST summative assessment mainly takes the shape of written assignments. Thus, even the internship is tested through the compilation of a file of between 10,000 and 20,000 words. Though the panel appreciates that this is a consequence of the authenticity principle, it advises the programme to optimise the variety in types of assessment, most notably oral presentations. It was glad to find out during the site visit that the Board of Examiners formulated a similar concern and is preparing a formal advice on the subject to the CAST programme board.

The panel looked at forms of assessment throughout the curriculum and noted that the principle of authenticity of exams takes precedence. At the same time, the programme made sure that assessment matches the intended learning outcomes. As a result, the authenticity principle is sometimes partially abandoned. The most notable instance of this is with the master's thesis. From the point of view of authenticity of exams, this thesis should take the form of a potentially publishable journal article. The actual theses are longer than the usual journal article, however. According to the critical reflection, this allows for a more comprehensive testing of competencies, including critical discussion of theory and reflection

on methodology. The panel applauds the programme for its attention to assessment of all intended learning outcomes, even when this compromises authenticity.

For the assessment of the thesis, a standardized assessment form is used. This is filled out by the second assessor, who returns it to the thesis supervisor. Both assessors then agree on a final version of the form and determine the definitive assessment. The assessment form also includes the result of the digital plagiarism check. The panel studied the assessment form and found that it allows assessors to address all necessary competences and go into all aspects of the thesis. It also concluded from the filled-out forms it studied, as well as from its interview with CAST teaching staff, that thesis supervisors and assessors use these forms conscientiously and thoroughly. In order to facilitate grading and feedback, the assessment form is backed up by a 'rubric'. The panel studied this rubric and considers it a useful tool for supervisors to fall back on.

#### *Board of Examiners*

The Board of Examiners (BoE) of FASoS is responsible for the quality of assessment of CAST. This board consists of five members, one of whom is an external grading expert, and is supported by administrative staff mandated by the BoE to organise intermediate exams, grade registration and archiving. The BoE holds monthly meetings.

The BoE began operating in this form after a change in Dutch law in 2010 extended and defined its responsibilities in quality assurance. In its meetings and activities, it has been initiating a process of transition in order to create faculty-wide alignment in assessment. The BoE fulfils its legal tasks, such as the appointment of examiners, and guarantees the quality of assessment by looking at samples of final theses. It is planning to extend its activities to sampling regular exams.

In transforming the faculty quality assurance system, the BoE has been looking for good practices within FASoS. The BoE told the panel during the site visit that the CAST assessment system effectively constitutes the faculty's best practice. CAST makes use of two thesis assessors and employs a standardized assessment form. CAST stands out through its clear views on assessment and its coherent and logical assessment system. Furthermore, the CAST programme ensures international calibration through regularly inviting the International Advisory Board to sample CAST theses.

The panel concludes that the Board of Examiners takes its role seriously and fulfils its legal tasks. It compliments the BoE on its proactive attitude and its focus on alignment and improvement. The panel is impressed with the fact that the assessment policies of CAST are held up as an example to the other programmes within the faculty.

#### **Considerations**

The panel applauds the programme for its assessment system, which is based on the principle that exams should reflect the reality of academic life. It concludes that the resulting system of assessment is logical, coherent and fitting in the context of a research master's programme. It considers, however, that the ensuing dominance of written assignments should be addressed. The panel is also positive about the fact that the programme takes care to ensure that all intended learning outcomes are tested in the curriculum, even if this leads to a temporary departure from the authenticity principle. According to the panel, the proactive way in which the Board of Examiners has taken on its legal tasks and is contributing to alignment within the faculty, is laudable. In the eyes of the panel, the fact that the BoE points to CAST's

system of assessment as best practice within the faculty is indicative of its quality and effectiveness.

## Conclusion

*Master's programme Cultures of Arts, Science and Technology*: the panel assesses Standard 3 as 'good'.

### Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

#### Explanation:

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes.

## Findings

### *Theses*

In order to be able to judge the achieved learning outcomes of CAST, the panel read fifteen master's theses and the accompanying assessment forms. The panel agreed with the assessment of the theses, and found that the assessment forms used in the process provide clarity on the nature and the result of the assessment.

The panel found that the level of almost all theses was in line with what might be expected of a research master's programme. The panel discussed one case, a thesis that was awarded a 6 in the resit, with the programme management. They pointed out that the problems were caused by the fact that the student experienced difficulties with the English language and with bridging a rather wide cultural gap. The panel considers this thesis to be an exceptional case and is confident that with the current stricter selection policy in place, including intake interviews, the number of such cases will remain very limited.

Concerning the other theses, the panel was pleased to observe that they were imaginative as well as thorough. The panel noted to its satisfaction that students demonstrate active and integrative knowledge of relevant theories and methodology, and are able to reflect on their own choice of methodology as well as subject matter. They are clearly encouraged to combine an in-depth discussion of and reflection on relevant theories and debates with a qualitative empirical approach. Only in one case, where a student used quantitative on top of qualitative research methods, the execution of these quantitative methods was not entirely satisfactory. This can be explained by the fact that although quantitative methods are sometimes deployed in STS generally, they are not a part of the CAST curriculum or its intended learning outcomes. However, the panel feels that additional quantitative expertise should be called in by a supervisor if a project requires it.

The panel noticed that the theses were rather lengthy. According to the critical reflection, this is a consequence of the programme wanting to test such learning objectives as the ability to do a comprehensive bibliographical analysis. The critical reflection mentions that the thesis should be the stepping stone to a peer-reviewed international journal article rather than a publishable article as such. The panel finds that these theses, while not always ready to be published, present such a stepping stone. It sees this conviction reinforced by the fact that students occasionally publish articles, alone or as co-authors, based on research they executed either for writing their thesis or earlier in the programme (e.g. during the core modules).

In the eyes of the panel, the theses represent a very wide variety of subjects. From its interviews with students, teaching staff and programme management, the panel learned that

the choice of theme is limited by the student's need to find a supervisor within CAST, whose expertise needs to be close enough to the thesis subject. This limitation takes place by introducing students to staff members early on. Immediately before embarking on their thesis project, students are invited to a 'market' where supervisors and possible topics are presented. After the student finds a supervisor, they enter into a process of alignment, ensuring that the topic is close enough to the supervisor's expertise and the identity of CAST. The panel considers this alignment process to be effective.

The set-up and range of the theses seemed very ambitious to the panel, and at times overly so. In some cases, students seemed to over-reach and take on more than they could handle. The panel finds that this ambition and enthusiasm to do well reflects positively on the programme itself, which stimulates students to strive for high quality. However, it finds that supervisors should at times pay more attention to their students' limitations, especially in light of the fact that students are to graduate at a PhD entry, not completion, level. This will prevent some students from disappointment in their execution of highly ambitious research plans.

### *Alumni*

The critical reflection states that graduate employability is excellent. The panel can only agree: 68% of graduates have ended up in research positions at universities or knowledge-intensive institutes. Other graduates have found positions in high tech or media and arts companies. Only one in 67 graduates is currently unemployed. The panel finds these numbers in and for themselves impressive.

The panel saw and interviewed various alumni and studied the overview of their careers and current positions in the critical reflection. It concludes that CAST graduates are very employable. Their education as 'CASTies', rather than providing them with a stable identity as STS or humanities scholars, turns them into young researchers who can venture into fields as yet unknown to them. Thus, CAST graduates have become PhD students in such diverse domains as the history of economics and urban planning. A number have moved to foreign universities and institutes, from Antwerp to Cornell and Oxford, while others have become local policy advisors or cultural entrepreneurs. The panel applauds the programme for turning out such versatile and successful graduates.

### **Considerations**

The panel judges the CAST master's theses as demonstrating the quality that might be expected of a research master's programme, particularly considering the fact that they are to be seen as a stepping stone towards a journal publication. It also agrees with the way the theses were assessed. According to the panel, the theses are lengthy, yet imaginative and original. They demonstrate integrative analytical and methodological skills. Thesis subjects are matched well with the expertise of supervisors, but students venturing outside of the CAST domain (e.g., through the use of quantitative methodology) should be aided by external experts. The panel finds that the theses are at times ambitious. It recommends that supervisors take students' limitations into account. As for the CAST alumni, the panel considers them to be doing extremely well in a wide variety of fields. Graduates more often than not end up in research positions and are clearly highly employable.

### **Conclusion**

*Master's programme Cultures of Arts, Science and Technology*: the panel assesses Standard 4 as 'good'.

## **General conclusion**

In the eyes of the panel, the research master's programme in Cultures of Arts, Science and Technology (CAST) has a unique profile. Based in the field of Science and Technology Studies, it uses its concepts and methodologies to study arts, science and technology both separately and in conjunction. The panel judges the programme's description of this profile to be insufficiently clear and finds that it can be better articulated. It expects that improvements in how the programme is described and announced would help attract more students to raise critically low student numbers. In practice, however, it works. The profile is well-translated into a set of intended learning outcomes which are in line with national and international standards and demonstrate a clearly academic orientation. The intended learning outcomes are elaborated in a logical and highly coherent curriculum, which integrates the teaching of substantive issues, methodologies and research skills. The programme strikes a balance between arts and STS and is characterized by a committed teaching staff of excellent research quality, an intimate atmosphere, intense study guidance and highly motivated students, who were selected precisely and carefully. The programme distinguishes itself further through its quality assurance system and its system of assessment, which constitutes a best practice due to its clear principle of authenticity of assessment and its coherent setup. CAST graduates produce theses that can be considered stepping stones towards a refereed journal article. The graduates are highly employable and find their ways to a variety of research positions.

## **Conclusion**

The panel assesses the *Master's programme Cultures of Arts, Science and Technology* as 'good'.



# Appendices

## Appendix 1: Curricula vitae of the members of the assessment panel

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**Prof. Nelly Oudshoorn** is Professor Emeritus of Technology Dynamics and Health Care at the University of Twente. After studying Biology at the University of Amsterdam (UvA), she gained a PhD in Science and Technology Studies at that university. She held assistant and associate professorships at UvA before her appointment as a full professor at the University of Twente in 2005. Her research interests and publications concern the relationships between users and technologies. Among her most recent books are *Telecare Technologies and the Transformation of Healthcare* (2011, Palgrave Macmillan) and *How Users Matter. The Co-construction of Users and Technology* (2003, MIT Press, with Trevor Pinch). She is a member of the advisory board of several international journals, including *Science, Technology & Human Values* and *Social Studies of Science*, and was chair of the board of the Netherlands Graduate School of Science, Technology and Modern Culture between 2005 and 2011.

**Prof. Thomas F. Gieryn** is Rudy Professor of Sociology Emeritus at Indiana University Bloomington, where he is also Adjunct Professor Emeritus of History & Philosophy of Science. He began his professorial career at Indiana in 1978 after completing his PhD in Sociology at Columbia University, and has remained at the University ever since, serving as chair in the Department of Sociology (2005-08) and as Vice Provost for Faculty and Academic Affairs from 2009 until his retirement in 2015. Gieryn's research centers on the cultural authority of science, and his notion of 'boundary work' has become a key concept in the field of Science and Technology Studies. Gieryn was awarded various prizes, such as the Robert K. Merton Prize from the Section on Science, Knowledge and Technology of the American Sociological Association for his 1999 book *Cultural Boundaries of Science: Credibility on the Line* (University of Chicago Press). He was a Resident Member at the Institute for Advanced Study (Princeton) in 1996-97, and in 2001 was elected both as a Fellow of the American Association for the Advancement of Science and as a member of the Sociological Research Association. Gieryn has served as Collaborating Editor at *Social Studies of Science* since 1984. He is a Founding Member (1976) of the Society for Social Studies of Science (4S).

**Prof. Robert Zwijnenberg** is Professor of Art and Science Interactions at Leiden University since 2004. Trained in Civil Engineering and Philosophy, he received a PhD in Philosophy from the University of Amsterdam in 1995. From 1999 to 2009 he was Professor of Art and Science Interactions at Maastricht University, where he was the project leader of several research programmes. His research and teaching focus on the role of contemporary art in academic and public debates on the implications of the life sciences, with an emphasis on the juridical and ethical aspects of human dignity in relation to human enhancement. Zwijnenberg is director of The Arts and Genomics Centre (TAGC), a platform for stimulating, initiating and supervising collaboration and exchange among international artists, genomics researchers and life sciences professionals. As director of TAGC, Zwijnenberg has initiated and supervised a number of artist-in-lab projects, which always aimed at a productive collaboration between bio-artists, life scientists and humanities scholars. His publications and research projects testify to his research objective: to stimulate the humanities in reclaiming an agenda-setting role in the academic and public debate on the implications and directions of life science research.

**Prof. Roland Bal** is Professor of Healthcare Governance at Erasmus University Rotterdam. He studied Health Sciences at Maastricht University and gained a PhD in Science and Technology Studies at the University of Twente. After an assistant professorship in Maastricht, he became assistant, associate and full professor in Rotterdam. His research interests include science-policy-practice relations and governance infrastructures in health



care. With Wiebe Bijker and Ruud Hendriks, he published *Paradox of Scientific Authority* (MIT Press) on the role of science advisory councils in (health) policy. More recently, he researched the creation of public accountabilities in healthcare, studying ways in which public service organizations ‘organize for transparency’. Part of this agenda is research on ICT applications in healthcare. He is currently also working with the healthcare inspectorate of the Netherlands in research projects on regulation and supervision. Bal has been involved in international comparative research, e.g. on hospital quality in Europe, and has a focus on ethnographic, interventionist research methods. He developed and taught many (inter)national teaching programmes at undergraduate and graduate levels. Recent publications appeared amongst others in *Social Science & Medicine*, *Science, Technology & Human Values*, *International Journal of Medical Informatics* and *Public Administration*.

**Jan-Yme de Boer (BA)** is a master’s student in Philosophy of Science, Technology and Society (PSTS) at the University of Twente. He previously completed a bachelor’s programme in Biomedical Engineering at that same university, as well as a teaching minor in Physics. He recently completed an internship in Copenhagen with the Danish Board of Technology Foundation, where he collaborated within the ‘Ethics and Society’ subproject of the European Human Brain Project on stakeholder and citizen engagement. De Boer was a board member of the student association of Biomedical Engineering as well as a member of the University of Twente’s ECA Recognition Pre-Selection Committee, and acted as a student member of the visitation panel during the 2012 assessment of Biomedical Sciences programmes in Eindhoven and Delft.

## Appendix 2: Domain-specific framework of reference

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### Subject-specific reference framework: Research master's programmes in Arts and Culture UvA, UL and UU, 2014

#### 1. Introduction

This reference framework pertains to the academic domain 'Arts and Culture' (research) and serves to evaluate the two-year / 120 ECTS Research Master programmes listed under this label when they are to be reaccredited in 2014. This frame of reference has been compiled and agreed upon by three LERU universities, University of Amsterdam, Leiden University and Utrecht University, to be applied to their respective research programmes in 'Arts and Culture'.

The academic domain 'Arts and Culture' (research) consists of a diverse set of disciplines that study the arts and other cultural expressions and phenomena in various thematic, historical and geographical contexts. Since the domain of Arts and Culture represents a wide variety of disciplines in the widest sense of the word, specific objects, topics and methods are central to each of these disciplines, and this feature obviously also defines the concurrent Research Master programmes. The present frame of reference pertains to the aims, requirements and standards common to the domain as a whole. All the Research Master programmes in this domain, although placing different emphases, investigate art forms and/or social and cultural manifestations, their historic or contemporary interconnections and contexts (political, social, economic, and cultural), and reflect on the institutions that produce, receive and circulate them as well as the academic (inter)disciplines and theoretical frameworks that study arts and culture.

In order to create this frame of reference for 'Arts and Culture' (research), we have made use of the following sources: the frame of reference for Research Masters formulated by the NVAO; the QANU guidelines<sup>1</sup>; the reference framework used for the academic MA programmes in the area; material from the British Quality Assurance Agency (QAA) and several subject-oriented brochures which were written as part of the European Tuning<sup>2</sup>-project.

#### 2. Frame of reference

Research Master programmes in the domain 'Arts & Culture' typically consist of a combination of disciplinary tracks, and these combinations differ between the three universities concerned. They share, however, clear policies with regard to their aims and objectives, which differ clearly from the one-year Academic Master programmes in the domain, in their focus on the research skills that graduates of these programmes will need for careers inside academia and in related professional fields demanding such research skills (e.g. museums, cultural and political institutions, consultancy, etc.). Consequently, these programmes also set a common standard for the selection of students. Since in all the programmes different disciplinary tracks are to be distinguished, for each of those the respective disciplines provide the benchmarks for scholarly quality, relevant methodology and research designs, apart from the general framework relevant to the domain.

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<sup>1</sup>[http://www.qanu.nl/sites/default/files/bestanden/files/Richtlijn\\_schrijven\\_ZER\\_beperkte\\_beoordeling\\_versi\\_e\\_103.pdf](http://www.qanu.nl/sites/default/files/bestanden/files/Richtlijn_schrijven_ZER_beperkte_beoordeling_versi_e_103.pdf)

<sup>2</sup> <http://www.unideusto.org/tuningeu/> Architecture, Art History, Design, Gender Studies, Music, Theatre, and the Creative and Performing disciplines.

### *Aims and objectives of the programmes*

The objectives of the programmes are to equip students with the knowledge, insight and skills necessary to independently conduct a research project meeting the standards of the relevant discipline in the field of Arts and Culture; to develop students' awareness of the methodological and societal implications of their work; and to increase students' understanding of the relevance of research in the domain of Arts and Culture to its national and international context. The programmes aim to prepare students for a career as a researcher in the field concerned, notably for a PhD position or for positions in the public or private sector for which advanced research skills and practical research experience are a prerequisite. The inclusion of, or focus on, PhD training as the primary option for continuing the programmes distinguishes the Research Master programmes in the domain of 'Arts and Culture' from the Academic Master programmes in the same domain. Academic (or Professional) Masters programmes prepare for a career on a more practical level in governmental or non-governmental organisations, including, importantly, the creative and cultural sector.

To attain their objectives, the Research Master programmes are structured in such a way as:

- to equip students with specialized knowledge, insight and skills in the discipline or field concerned;
- to provide a learning environment in which students develop the required professional attitude by community building, intensive supervision, peer reviews and similar conditions;
- to offer students the opportunity to get insight into their own abilities as researchers with the aim to develop their talents and skills in the context of the international standards of the discipline.

### *Qualification standards*

The Research Master programmes in the domain of 'Arts and Culture' provide a learning environment to help students attain the necessary standards of qualifications. A graduate of a Research Master programme in Arts and Culture demonstrates the following qualities.

#### *Knowledge:*

- a solid knowledge of and insight into the disciplinary field concerned, pertaining to the types of artefacts, texts or other cultural expressions that are the specific objects of study in this discipline;
- a thorough knowledge of an acknowledged area of specialisation within the field of research concerned, or thorough knowledge at the interface of a disciplinary field within the programme and another field (e.g. History, Media Studies, etc.); usually, this will be the area in which the research of the Master thesis is situated;
- knowledge of the debates, methodologies and theoretical approaches in the relevant field, their historical evolution and their (international) academic contexts.

#### *Academic disciplinary skills*

- the academic skills to independently identify, formulate, analyze and suggest possible solutions to problems in the field concerned;
- the academic skills to solve complex academic problems independently, critically and creatively, demonstrating the necessary professional abilities in line with the standards of the discipline;

- the academic skills to define and collect the relevant corpus of texts, artefacts or other expressions of arts and culture, or define and collect the relevant data set, required to address complex academic problems in a manner that meets with the general standards of the discipline;
- the academic skills to report verbally and in writing on research conducted independently to an audience of specialists in a manner that meets the general standards of the discipline and its relevant networks.

#### *General academic skills*

- full awareness of the methodological, ethical and societal implications of research in the relevant field and especially of the student's own research project;
- the ability to form a well-argued judgement on work of others;
- the ability to take responsibility for the professional context of research in the relevant field;
- the ability to communicate conclusions, as well as the underlying knowledge, grounds and considerations, to an audience composed of non-specialists.

#### *Coordination with the job market*

Research Master programmes in the domain 'Arts and Culture' strive for being academically competitive in order to prepare future graduates for (inter)national scholarly careers, that is, ideally, for a PhD position at a highly ranked university. The LERU provides guidelines and best practices for this competitiveness as well as discipline-specific networks and institutions (for which the European Tuning-project is exemplary). Career planning activities that extend beyond academia can be found in relation to the external advisory boards that have been or are being established by the Netherlands Research Schools.<sup>3</sup>

### **3. Structure of the programmes**

#### *Admission of students*

In order to attain the high qualification level that is the objective of the Research Master programmes, all programmes select students strictly for admission. Although conducted differently in details depending on the procedures of each of the three universities involved in this frame of reference, generally the following admission standards obtain.

- The Research Master's programmes in the domain of 'Arts and Culture' attract students who hold a Dutch or foreign higher education degree from an accredited academic institute that demonstrates knowledge, insight and skills relevant to the programme – either by way of a completed BA degree, approximately 45 ECTS worth of BA classes or a minor programme – in one of the relevant fields, a significant equivalent or an adjacent discipline, depending on the specific requirements of the respective programmes and disciplinary tracks.
- Students are selected who show a high standard of academic achievement as evidenced in academic transcripts and references, intellectual curiosity and motivation for further research. The applicants must demonstrate affinity with the training in

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<sup>3</sup> 9 Research Schools that prepare Research Master's curricula for students in the domain 'Arts and Culture' include: Dutch Postgraduate School for Art History (OSK), Huizinga Instituut (National Dutch Research Network for Cultural History), Netherlands Institute for Cultural Analysis (NICA), Netherlands Research School of Gender Studies (NOG), the Netherlands Research School for Literary Studies (OSL), the Research School for Media Studies (RMeS) and the Research School for Medieval Studies, all cooperating in LOGOS: the council of the national Dutch research schools in the Humanities.

scholarly research and topics offered in the programme and the ambition to follow this programme to become an early stage researcher (ESR).

- Since all programmes are taught in English and aim at an international qualification, students must demonstrate their ability to use English as a working language. Dutch students must have a diploma in English at pre-university level; foreign students from non-English speaking countries must provide results of a TOEFL or IELTS test.

#### *Quality standards of the programme*

In order to guarantee the high standards set to themselves and their students, all programmes in the domain Arts and Culture observe the following criteria:

#### *Coursework:*

- the courses of Research Master's Programmes are generally taught by internationally renowned scholars who have minimally acquired their University Teaching and Research Qualifications (so-called BKO) and whose current research feeds back into the curriculum (in tutorials and otherwise);
- the content of the curriculum is shaped by the research activities of the respective School or Faculty, and that these research activities have been ranked highly in international reviews;
- part of the curriculum is offered by (one of the) National Research Schools; Research Master's students obtain approximately 10 ECTS via the course offer of National Research Schools.

#### *Thesis:*

In line with the NVAO standards, in all programmes students write a substantial research thesis, in which the academic competences the student has acquired in the programme converge and demonstrably meet the expected professional standards in the field.

#### *Internship:*

In the domain of 'Arts and Culture', internships are part of the programme more often than is the case in RM programmes of many other domains. This feature has to do with the required competences of research master students for professional environments other than the university, which are central to the field of 'Arts and Culture', such as museums, theatres, film institutes, and similar institutions. In these cases, the research focus of the programmes is equally valid: students are expected to conduct research projects in or related to their internship and to the institutions where they do so. Usually, the Master thesis is closely related to or integrated with the research conducted in the internship.

#### *Grading and feedback:*

The research-intensive and highly specialized nature of a Research Master's Programme in 'Arts and Culture' requires a clear framework for grading course work (this framework is communicated to the student in the very beginning of a course or tutorial) and individualized feedback so as to make sure the student's knowledge, insight and skill development towards a career as an academic researcher is ascertained. The latter development is also monitored by the student's mentor. Internship grading focuses on the research component of the placement.

*Specific features per university:* Given that the three programmes of Leiden, Amsterdam and Utrecht consist of different combinations of disciplinary fields and that every university has made particular choices, the following section lists the programmes per university.

University of Amsterdam

1. Art Studies
2. Artistic Research
3. Cultural Analysis
4. Dutch Golden Age Studies

Leiden University

1. Architecture
2. Art of the Contemporary World and World Art Studies
3. Design and Decorative Art Studies
4. Early Modern and Medieval Art
5. Museums and Collections

Utrecht University

1. Art History of the Low Countries in its European Context
2. Gender and Ethnicity
3. Musicology

### Appendix 3: Intended learning outcomes

CAST final qualifications	CAST learning objectives
<p><b><i>Substantive competencies</i></b>            CAST graduates have demonstrated knowledge and understanding of theories and approaches relevant for studying the cultures of arts, science and technology, and have the ability to make original links between the domains of arts, science and technology</p>	<ul style="list-style-type: none"> <li>• to gain insight in the structure of and knowledge production in the academic fields relevant for studying the cultures of arts, science, and technology (journals, handbooks, academic societies, conferences)</li> <li>• to acquire an overview of theories and approaches relevant to studying the cultures of arts, science and technology (especially from history, philosophy, the qualitative social sciences and arts studies)</li> <li>• to compare concepts, models and theories from different subdisciplines and levels of analysis</li> <li>• to develop interactional expertise in art, science and technology</li> <li>• to identify and formulate new topics and questions relevant for studying the cultures of arts, science and technology</li> </ul>
<p><b><i>Research competencies</i></b>            CAST graduates have research competencies that enable them to apply their knowledge, understanding and problem solving abilities in new or unfamiliar environments within broader contexts related to studying the cultures of arts, science and technology</p>	<ul style="list-style-type: none"> <li>• to do a comprehensive literature search and bibliographical analysis, using classic library resources as well as Internet sources</li> <li>• to critically appraise the quality of various source materials</li> <li>• to use relevant methodologies from the humanities and qualitative social sciences, notably qualitative interviewing, conceptual analysis, archival research, ethnography, rhetorical analysis (of texts and images), narrative analysis, and discourse analysis.</li> <li>• to select the appropriate research methodology for a particular research question</li> <li>• to identify new events, relations, and patterns in seemingly trivial data</li> <li>• to critically reflect upon the relation between methodology, theoretical framework, and empirical research site</li> <li>• to transfer and apply concepts, theories and methods from an established field of study to a new research domain so as to facilitate substantive, theoretical and methodological innovation</li> </ul>
<p><b><i>Integrative competencies</i></b>            CAST graduates have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information. This includes reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments</p>	<ul style="list-style-type: none"> <li>• to evaluate a scholarly argument in the academic fields relevant for studying the cultures of arts, science and technology</li> <li>• to evaluate and handle complex situations with incomplete information</li> <li>• to critically appraise standard concepts, theories and methods in the academic fields relevant for studying the cultures of arts, science, and technology</li> <li>• to combine concepts, theories and methods from diverse disciplines in a well-reasoned manner, and without falling into the trap of eclectic superficiality</li> <li>• to discuss recent developments in the cultures of science, technology and the arts and their implications for society</li> <li>• to acquire knowledge of and the ability to use ethical rules related to scholarly work (including styles of acknowledgement, use of other persons' sources, referencing, peer review, anonymity)</li> <li>• to contribute in an original and sound scholarly way to the body of knowledge production, as certified by the 'master piece' of a final thesis, at the level of a peer-reviewed international journal article</li> </ul>

<p><b><i>Professional competencies</i></b>  CAST graduates can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously</p>	<ul style="list-style-type: none"> <li>• to contribute to the various forms of knowledge output used in the academic fields studying the cultures of arts, science, and technology (e.g. review article, research paper, conference presentation, research proposal, edited volume, poster, or exhibition catalogue)</li> <li>• to participate in scholarly discussions</li> <li>• to contribute to outreach activities and societal debates</li> <li>• to communicate research results to other researchers within and outside the field of cultural studies of arts, science, and technology</li> <li>• to relate one’s research project to other disciplinary frameworks</li> <li>• to work in a multi-disciplinary research team</li> <li>• to do adequate time management</li> <li>• to acquire practical knowledge concerning national and international research funding possibilities, and the ability to apply to such funds</li> </ul>
<p><b><i>Learning competencies</i></b>  CAST graduates have the learning skills to allow them to continue to study in a manner that may be largely selfdirected or autonomous</p>	<ul style="list-style-type: none"> <li>• to critically reflect upon one’s own work and performance, and to accordingly adapt that work</li> <li>• to make one’s own substantive choices related to research topic, questions, and approach; also in relation to societal circumstances.</li> <li>• to acquire an attitude of life-long learning</li> <li>• to acquire an original and critical style of analysis</li> </ul>



## Appendix 4: Overview of the curriculum

Calendar period (ECTS)	Module type	Module title
<b>First Year</b>		
A (12)	Core module	Entering the Field: The State of the Art in Studying the Cultures of Arts, Science, and Technology – with training qualitative interviewing & practicing conceptual analysis
B (12)	Core module	The Rules of the Game: CAST Research Methods – with practicing ethnography & historical methods
C (6)	Core module	Changes in the Research System – with training “Writing a Research Proposal”
D (12)	Core module	Researching the Cultures of Arts, Science and Technology – with focus on rhetorical, narrative and discourse analysis
E (12)	Research project	Joint Project
C-E (3)	Research reflection	<i>Preparation Research Internship</i>
A-E (3)	Research reflection	Research colloquia • <i>MUSTS</i> • <i>AMC</i>
<b>Second Year</b>		
A-B (24)	Research project	Research internships
C-E (6)	Research reflection	Thesis seminar + research colloquia & master classes
C-E (30)	Research project	Thesis

## Appendix 5: Programme of the site visit

Tuesday, 5 April 2016			
13.00	14.00	Arrival panel; lunch	
14.00	16.00	Preparatory meeting	
16.00	16.45	Interview with the programme management	Prof.dr.Sophie Vanhoonacker, <i>Dean FASoS</i> Dr. Jessica Mesman, <i>Associate Dean Education FASoS</i> Prof.dr. Harro van Lente, <i>Director of Studies CAST January 2016-now</i> Prof.dr. Karin Bijsterveld, <i>Director of Studies CAST 2013-2015</i> Prof.dr.ir. Wiebe Bijker, <i>Director of Studies CAST 2005-2013</i>
16.45	17.00	Break	
17.00	17.30	Interview with alumni	Older, Dani ( <i>lecturer UM</i> ) Dieker, Marith ( <i>PhD FASoS</i> ) Driessche, Robbert van ( <i>PhD Radboud University Nijmegen</i> ) Egher, Claudia ( <i>PhD FASoS</i> ) Marktanner, Alina ( <i>PhD Max Planck Institute Cologne</i> ) Reijnders, Tessa ( <i>Owner cultureel projectbureau Tessa Reijnders</i> )
Wednesday, 6 April 2016			
09.00	09.15	Internal meeting panel	
09.15	10.00	Interview with students	Beierman, Lea; <i>CAST first year student</i> Bollebakker, Sjoerd; <i>CAST second year student</i> Bucholski, Matt; <i>CAST first year student</i> Heide, Arjen van der; <i>CAST second year student</i> Petzold, Denise; <i>CAST second year student</i> Rufas Ripol, Alix; <i>CAST second year student</i> Spronck, Veerle; <i>CAST second year student</i>
10.00	10.45	Interview with lecturers	Dr. Jens Lachmund, <i>coordinator course 1A</i> Dr. Anique Hommels, <i>coordinator course 1B</i> Prof.dr. Tsjalling Swierstra, <i>coordinator course 1C</i> Prof.dr. Lies Wesseling, <i>coordinator course 1D</i> Prof.dr. Harro van Lente, <i>coordinator Preparation Research Internship, Research Internship, Thesis and Thesis Seminar</i>
10.45	11.00	Break	
11.00	11.45	Interview with Programme Committee	Prof.dr. Cyrus Mody, <i>chair</i> Dr. Ike Kamphof, <i>staff member</i> Dr. Jens Lachmund, <i>staff member</i> Maurits Mink, <i>student member</i> Ivanna Vinnicsuk, <i>student member</i>
11.45	12.30	Interview with Board of Examiners	Dr. Elissaveta Radulova, <i>chair</i> MA Robin Dirix, <i>secretary</i> Dr. Louis v.d. Hengel, <i>staff member</i> Dr. Giselle Bosse, <i>staff member</i> MSc Bart Roosenboom, <i>assessment expert, external staff member</i> Drs. Lucie van Gastel, <i>servicedesk</i> LLM Sterre Rietbroek, <i>servicedesk</i>

12.30	13.30	Lunch	
13.30	14.30	Interview with programme management (including dean)	Prof.dr. Sophie Vanhoonacker, <i>Dean FASoS</i> Dr. Jessica Mesman, <i>Associate Dean Education FASoS</i> Prof.dr. Harro van Lente, <i>Director of Studies CAST January 2016-now</i> Prof.dr. Karin Bijsterveld, <i>Director of Studies CAST 2013-2015</i> Prof.dr.ir. Wiebe Bijker, <i>Director of Studies CAST 2005-2013</i>
14.30	16.00	Internal meeting panel	
16.00	16.15	Presentation of preliminary findings	

## Appendix 6: Theses and documents studied by the panel

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Prior to the site visit, the panel studied the theses of the students with the following student numbers:

6014911	6001868	0401013
6016811	6002778	0547832
6024402	6003688	6033032
6056330	6009267	0442437
0549045	6045660	6026165

During the site visit, the panel studied, among other things, the following documents:

- Programme Committee: minutes 2012-2013
- Programme Committee: minutes 2013-2014
- Programme Committee: minutes 2014-2015
- Programme Committee: minutes 2015-2016
- Annual report Programme Committee, 2012-2013
- Annual report Programme Committee, 2013-2014
- Annual report Programme Committee, 2014-2015
- Board of Examiners: minutes September 2012-March 2016
- Annual report Board of Examiners 2011-2012
- Annual report Board of Examiners 2012-2013
- Annual report Board of Examiners 2013-2014
- Annual report Board of Examiners 2014-2015
- Promotion flyers MSc Arts and Culture: CAST Reading List
- Literature, course manuals, exams and evaluation results of the following courses:
  - 1A Entering the Field
  - 1B The Rules of the Game
  - 1C Changes in the Research System
  - 1D Researching the Cultures of Arts, Science and Technology
  - 1E Joint Research Project
  - Preparation Research Internship
  - Research colloquia MUSTS and AMC
  - Research Internship
  - Thesis Seminar/Colloquia & Thesis

During the site visit, the panel also studied research internship files, including portfolio, assessment forms and assessment letters from the research organizations in which the internship took place, of students with the following student numbers:

6042160	6093005	6091226
6092386	6043107	