

Executive Board

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TU/e Educational Fraud Policy

Table of contents

Title TU/e Educational Fraud Policy	Management summary	3
	1 Introduction	4
	1.1 Principles	5
	2 TU/e Fraud Policy	6
	3 Informing	7
	4 Prevention	9
	5 Detection	13
	5.1 Administering exams in a central examination setting	13
	5.2 Submitting assignments	13
	6 Imposing sanctions	15
	7 Interim Tests	17
	7.1 Active participation	17
	7.1.1 Application	17
	7.1.2 Challenge	18
	7.2 (Homework) assignments	18
	7.2.1 Application	18
	7.2.2 Challenge	18
	7.3 Mini-examinations	19
	7.3.1 Application	19
	7.3.2 Challenge	19
	7.4 Interim test considerations	20
	8 Roles and responsibilities	22
	9 Bibliography	23

Management summary

The TU/e Education Fraud Policy was drafted as part of the TU/e Fraud Prevention project and is based on the TU/e Code of Scientific Conduct. Plagiarism is a specific type of fraud and has been included as such in this policy. The fraud policy has been divided into four elements, namely 1. Informing about fraud, 2. Preventing fraud, 3. Detecting fraud and 4. Imposing sanctions in the event of fraud. The principles for each element have been described in detail, resulting in the inclusion of a table showing completed and planned actions/regulations, planning and actors for each of the elements. The policy concerns the entire examination process, including copying, storing, distributing, administering examinations and further processing up to and including the awarding of diplomas. Every effort has been made to close the control cycle in each case. The last chapter contains an overview of actors and their responsibilities in organizing examinations and safeguarding their quality. The basic regulations for fraud prevention in interim tests are included in chapter 7 of this document. Chapter 8 provides an overview of the responsibilities that actors have and their responsibilities in the organization and quality control of testing.

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1 Introduction

A TU/e diploma is highly valuable. Students, society and the labor market need to be able to trust the value of this diploma. TU/e is aware of this fact and therefore makes a continuous effort to safeguard this value. In addition to trusting the content of the degree, people also need to be able to trust that a TU/e degree was obtained honestly. Fraudulent action is triggered by three things: opportunity for fraud, motivation for fraud and the rationalization of fraud. These three elements are also referred to within the framework of fraud detection in higher education (e.g., Becker, Connolly, Lentz, & Morrison, 2006; the Dutch Parliament, 2007-2008). This means that fraud can occur when an opportunity presents itself, when there is sufficient temptation or pressure to commit fraud, and when the person committing fraud can rationalize the fraudulent action. Students must therefore be clearly informed during their studies that fraud is not compatible with an academic study program, that fraud is not easy, that the probability of being caught is high and that fraud is rare. To this end, the Executive Board has commissioned the compilation and further development of the TU/e-wide Fraud Policy described in this document. Plagiarism is a specific type of fraud and fighting it falls within the scope of this policy document.

The Code of Scientific Conduct (2014), developed by TU/e, is a point of reference for this fraud policy. This code was based on the national VSNU Code of Conduct, which states that: “(employees of) institutes that fulfill a societal role are held to a proper exercise of their duties.”

The five key principles of TU/e are:

1. Reliability
2. Intellectual honesty
3. Openness
4. Independence
5. Social responsibility

Compliance with these five principles safeguards the high value attached to science. It is therefore important for study programs to teach students – who are prospective scientists – to understand that some actions are unacceptable in a culture of academic integrity.

As a prospective scientist, a student must be actively informed of the boundaries, as well as of the established regulations and guidelines. Violating these regulations and guidelines in any way is an action that goes against academic integrity. Fraud therefore is a violation of the trust in honest action, now and in the future.

The fraud policy in this document provides an overview of how the students and the university ensure that the agreements concerning fraud are honored. In all cases

the Deans of the Bachelor College and the Graduate School, the Program Directors and directors of the Graduate Programs, lecturers, examiners, Examination Committees, the examination coordinator, the invigilators and the testing experts each have their own important role to play in the creation and/or implementation of the fraud policy, and together they ensure a continuous quality assurance cycle. An overview of their mutual responsibilities is provided in Figure 2 in the final part about roles and responsibilities (Section 7). The principles on which this document is based will be discussed first. The fraud policy of TU/e will then be described in four steps.

1.1 Principles

All parties involved in an academic study program must conform to the principles regarding fraud that have been established by the university:

- Society is able to trust that TU/e diplomas have the value that is expected of them.
- Studying takes place in a culture of academic integrity in which fraud is unacceptable.
- Cheating on tests and on applications for exemptions and examinations comprises any action or failure to act on the part of a student that makes it partially or completely impossible for the examiner to form an accurate opinion of his or her knowledge, understanding and skills, and/or deliberate attempts on the part of a student to influence any part of the examination process for the purpose of influencing the results of the examination.
- Plagiarism is a specific type of fraud.

At the start of their studies, students are trusted to behave in accordance with the code of scientific conduct. If the student violates this code, he/she will breach this trust, thereby demonstrating that he/she is not suited to being a scientist. TU/e therefore has an integral policy consisting of four elements for the purpose of maintaining a culture of academic integrity. Within this culture, it is made clear to students that committing fraud is incompatible with the conduct that is expected of them as scientists. The holistic approach of the policy of four elements corresponds to a variety of literature describing the four elements that a fraud prevention policy should consist of (Bloothoofd, Hoiting, & Russel, 2004; Duggan 2006; Park, 2003; cf. Rienties & Arts, 2004).

1. **Informing:** The boundaries of what is permissible are communicated to the student in a clear manner by the university.
2. **Prevention:** Any situations conducive to fraud will be avoided by the university and its students.
3. **Detection:** The University will ensure that no cheating occurs during examinations.
4. **Imposing sanctions:** In the event of fraud, sanctions will be imposed on the offending students that, in light of the breach of trust, are appropriate to the type of fraud committed.

Given the direction of the project plan and the Fraud Prevention project team's assignment, the elements will mainly discuss the 'opportunity' and 'rationalization' triggers mentioned above. The focus is on increasing the chances of detecting fraud and on providing students with sufficient information to prevent fraud. In order to specifically deal with the 'motivation' trigger, a healthy environment conducive to study and the matters that have an impact on it, such as the curriculum, the binding recommendation, study support and/or the Bachelor-before-Master rule, would have to be considered, which falls outside the scope of the Fraud Prevention project.

2 TU/e Fraud Policy

This TU/e Education Fraud Policy document establishes the main regulations regarding the above-mentioned four elements. In addition to an overview of the policy orientations, this document shows the state of affairs of the implementation. These regulations apply from the date on which the document was adopted, unless stated otherwise. It also provides an overview of documents that cover the fraud prevention policy in greater detail (per department, for example). These documents are the TU/e model Examination Regulations, model OER, Departmental Assessment Policy, Student Statute, TU/e Central Examination Regulations and the TU/e Assessment Framework, which will eventually include this Fraud Policy document. The Fraud Policy must keep up with new developments, such as new methods of administering examinations, and will direct fraud prevention at TU/e. The document must therefore be regularly compared with the case studies of TU/e and the case studies of other educational institutions. To this end, the fraud policy must be continuously improved and implemented. The organization is described later on in this document. This TU/e Education Fraud Policy document also serves as input for the departmental assessment policy.

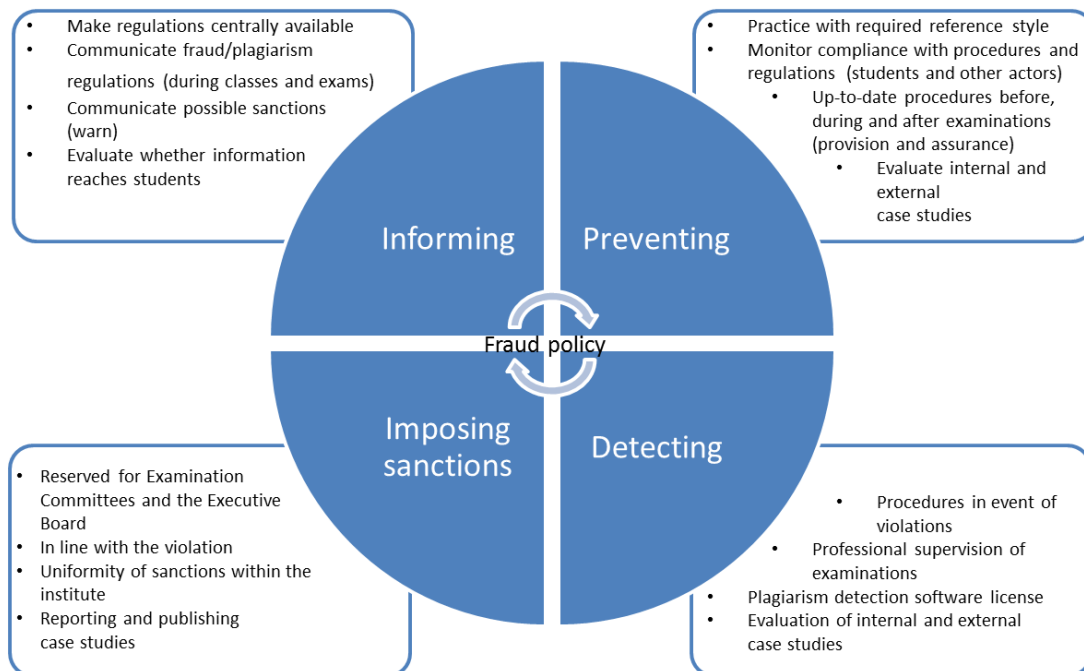


Figure 1 Overview of the TU/e Fraud Policy consisting of four elements (L.W. van Meeuwen, 2014) based on Rienties & Arts (cf. 2004).

3 Informing

The institution shall clearly communicate the boundaries of what is permissible to students.

The TU/e study programs have a policy of raising awareness through providing information, ensuring that students know what fraud is. Desirable conduct is described in the "TU/e Code of Scientific Conduct". The code of conduct is referred to in the Student Statute. The definition of fraud has been laid down in the examination regulations. Examination Committees report on case studies every year. The study programs are responsible for informing students about this.

The Deans will be responsible for the implementation of the code of conduct among the BSc, MSc, PhD and PDEng students in the coming period.

The fraud regulations will be kept up to date by the university and made available to students through the digital study guide. The 'fraud prevention' project team will be active in this respect up to April 01, 2015. After this date, the assignment will be passed on to the Central Committee Quality Assurance Education CCKO, which will conduct periodic evaluations.

Table 1 provides an overview of actions and the state of affairs with regard to informing students about fraud.

Table 1 *Actions with regard to informing students about fraud*

Action	State of affairs	Planned	Ready	Parties involved
Code of conduct				
Code in Intro	In consultation with STU	July 1, 2015	✓	STU
Discuss the code within the BSc and MSc study programs	- Student endorsement by signing the attendance card when taking the final examinations	Oct 1, 2014		Program Management
	- Inclusion in digital study guide	Apr 1, 2015	✓	
	- Inclusion in Student Statute	July 1, 2015		
Signing of the code by Master's students at the start of their studies	To be incorporated in the Graduate School implementation plan, focusing on foreign students	Feb 1, 2015		Dean of Graduate School
Reference to the code during the BSc and MSc graduation ceremony	Text stipulated by the Executive Board on December 4, 2014	Jan 1, 2015	✓	The Executive Board demanded the Departmental Boards to ensure that the text is read aloud.
PhD students sign the code at the start	As of December 1, 2014, they will receive a letter containing a statement, which they are requested to sign	Sep 1, 2014	✓	PhD supervisors Corrective action via DPO

Reference to the code during the defense of a dissertation	Text stipulated by the Executive Board on December 4, 2014	Jan 1, 2015	✓	The Executive Board demanded the Departmental Boards to ensure that the text is read aloud.
PDEng students sign the code at the start	As of December 1, 2014, they will receive a letter containing a statement, which they are requested to sign	Sep 1, 2014	✓	Full professors Corrective action via DPO
Reference to the code during the PDEng graduation ceremony	Text stipulated by the Executive Board on December 4, 2014	Jan 1, 2015	✓	The Executive Board demanded the Departmental Boards to ensure that the text is read aloud.
Other rules				
TU/e Central Examination Regulations	Adopted on December 4, 2014	Jan 1, 2015	✓	Executive Board
OER, ER, Student Statute	Make it available through the digital study guide	Annual update		STU, Bachelor College, Graduate School
Update TU/e Education Fraud Policy	Version 1.0	Annually		CCKO, Executive Board
Communication with students about case studies		Sep 1, 2015		Program Management and Examination Committee

4 Prevention

Any situations conducive to fraud shall be precluded by the university and its students.

The institute board is responsible for the organization of interim and final examinations (article 7.10, third 3, WHW). The TU/e study programs have a policy designed to limit the opportunities for committing fraud before, during and after all types of interim and final examinations. On the one hand, providing sufficient information prevents (mainly unconscious) fraud. On the other hand, supervision, the organization of suitable assessment situations and compliance with proper procedures also ensure fraud prevention. At TU/e, assessment situations and examination procedures are geared towards reducing the chances of fraud. Both the procedures and the method of supervision for detecting fraud and imposing sanctions with regard to central examinations are described in the "TU/e Central Examination Regulations" and the accompanying appendices:

- A TU/e examination cover sheet must minimally state the following with regard to fraud:
 - o which aids and resources are permitted
 - o the most important rules for preventing cheating
 - o a number of examples of fraudulent actions
- On an attendance card the following is stated: The student signs the card to prove his/her attendance and to acknowledge his/her compliance with the TU/e Code of Scientific Conduct.

Under the coordination of the Program Director, lecturers of first-year BSc and MSc courses are tasked with communicating the regulations to the students and, if necessary, providing them with feedback to raise their awareness of these regulations. This task can be assigned to lecturers of Professional Skills, among others. The development of the information skills learning trajectory in the Bachelor College is divided into three phases. In the first phase, the students learn to search through academic databases and learn about the significance of citations in academic literature. In the second phase, the students learn to formulate search queries and perform searches, and learn how to correctly use the information they have found (quoting and referencing). In the third phase, the students are also expected to be capable of processing the relevant literature. This involves, among other things, the correct use of paraphrases and quotations, as well as the creation of a bibliography in the style commonly used in the relevant field. At the end of the third phase, the students are expected to comply with the rules with regard to referencing. If students do not take the relevant major courses until a later stage of their BSc program, the course study guides must contain adequate information about the applicable fraud regulations.

The course study guide must inform students about fraud regulations and has to indicate which style should be used for referencing and paraphrasing. Knowledge domains within TU/e have different rules for referencing and paraphrasing. To ensure that students comply with these reference rules, a study program should preferably choose a single reference style that corresponds to the relevant knowledge domain. If students are allowed to work together, lecturers must always provide them with transparent rules that specify under which circumstances collaboration and the joint submission of assignments is permitted. The study guide must also inform students about the tools that lecturers have at their disposal to detect fraud (especially plagiarism) and about cases in which fraud was detected.

This means that students:

- are told in the study guides where they can find fraud regulations.
- are informed by the study guides about the regulations concerning examinations and the submission of their own work.

- are informed by the study guides about the regulations concerning quoting and paraphrasing.
- practice applying the reference regulations in the information skills learning trajectory.
- receive cautionary feedback (in the information skills learning trajectory, for example) when these regulations are violated.
- made aware via the study guides of the possible sanctions that will be imposed if the regulations are violated

Lecturers shall be informed about the regulations and guidelines in the BKO courses.

Separate courses are also available (for example, plagiarism detection).

During training sessions held each year, invigilators are informed of matters such as changes to regulations and procedures, for they ensure that the TU/e Central Examination Regulations are complied with. Invigilators may only be appointed if they meet the criteria of the profile of an external invigilator. The work of invigilators is monitored by means of an annual evaluation cycle. The pool of invigilators is then kept up to date by means of training and selection.

The university supports the responsible lecturers by making it easier for them to administer examinations (on a large scale). The university provides a service for safe printing and a service for storage and distribution in the event of large-scale examinations. In addition, digital final examinations are administered in a controlled environment. Furthermore, printed and unprinted diplomas shall be regarded as securities. This means that diplomas are securely stored, printed, registered, issued and, if necessary, safely destroyed.

Through the education commissioners, the institution continuously receives feedback from students with regard to fraud. As a result of this feedback, the defects of the central examination system are identified each year and improvements are proposed by the program boards in consultation with a testing expert and the Examination Committees.

Table 2 provides an overview of actions and the state of affairs with regard to fraud prevention.

Table 2 *Actions with regard to fraud prevention*

Action	State of affairs	Ready/Planned		Parties involved
Administering central examinations				
Selection of invigilators	A profile is created	Apr 1, 2015	✓	DIZ
Training of invigilators	2014-2015 training completed	Oct 2014	✓	DIZ
Implementation and compliance monitoring of the TU/e Central Examination Regulations	Introduction Monitoring	Jan 1, 2015 Continuous	✓	OMT, Executive Board
Annual evaluation	Up to date	Annually in Jan		Program Management, Students, Testing Expert, Examination Committees Examination coordinator
Safe printing	Printing service available at TU/e		✓	DIZ
Reference style				
Teach the correct style to students	Each relevant course. Compliance with the style is part of professional skills		✓	Program Management, STU
Choice of style per study program		Sep 1, 2015		Dean, Program Management
Purchase of a campus-wide plagiarism detection software license	Ready, transition from Ephorus to Turnitin	Sep 1, 2014	✓	Deans, ICT
Broader implementation of the use of the Ephorus campus license to Lecturers	Ephorus has been taken over by Turnitin.	Apr 1, 2015		Lecturers
Requirement list for plagiarism detection software	Project leader has been appointed	Jul 1, 2015		ICT table, Program leader Digital Assessment
Professionalization				
BKO	The updated educational method will start to be used	Jan 1, 2015	✓	DPO
Various professionalization courses for lecturers with regard to testing	Scheduled	Jan 1, 2015	✓	DPO
Digital tests				
Quiet testing	In effect at W&I		✓	W&I
Implementation of the digital testing program plan	Initiation of various projects	2016-2017		Various parties

Digital Study guide			
Course-specific information on fraud in every study guide and/or references to fraud-related information	Further implementation and check	Sep 1, 2015	Program Management, Deans, OCs

5 Detection

The institution shall ensure that no cheating occurs during examinations.

The supervision policy for ensuring that there is no cheating during examinations is divided into two themes, namely 1. administering exams in an examination setting, and 2. submission of assignments. In all cases, reporting fraud to the Examination Committee is crucial. The Examination Committee keeps a file that makes it possible for student histories to be reviewed.

5.1 Administering exams in a central examination setting

The institute board is responsible for ensuring quality when administering examinations. To this end, the Executive Board adopted the TU/e Central Examination Regulations on December 4, 2014, which take effect on January 1, 2015. During the examinations, the invigilators are responsible for supervision, maintaining order and attendance registration. In the event that an examiner or invigilator discovers or suspects cheating, either before, during or immediately after the examination, the examiner or invigilator must record this in a report as soon as possible. If requested by the examiner or invigilator, the student in question must present any evidence required. Refusal to do so has to be mentioned in the report. The examiner must send the report to the Examination Committee of the program in which the student is enrolled. The invigilator shall mention the report in the examination evaluation. The relevant Examination Committees and Program Directors must also be informed of the results of this evaluation. The Examination Committee will make a decision in connection with the report, taking into account the procedure contained in the model examination regulations. A survey conducted in 2014 among students and invigilators indicated that cheating is often committed in restrooms during examinations. Supervision of visits to the restroom has been improved, while the possibilities for monitoring the use of digital devices with network connections are being investigated.

5.2 Submitting assignments

All assignments submitted to examiners for evaluation can be checked for plagiarism in order to ensure that the submitted assignment meets the requirements for a student's own work. TU/e has a campus-wide plagiarism detection software license for this purpose. All BSc and MSc final assignments shall only be graded if the submitted assignment has been checked for plagiarism. If the assignment contains confidential information, additional care must be taken to safeguard this confidentiality in the plagiarism detection software. Table 3 provides an overview of actions and the state of affairs with regard to fraud detection.

Table 3 *Actions regarding fraud detection*

Action	State of affairs	Planned	Ready	Parties involved
Administering exams in a central examination setting				
Training of invigilators	2014-2015 training completed	Oct 2014	✓	DIZ
Report on central examinations	Report drawn up and submitted after each examination period	June 2014	✓	DIZ, Program Management, Examination Committees
Ensure that cheating during restroom visits becomes more difficult	Stricter monitoring of telephone possession has been implemented.	Jan 2015	✓	DIZ
	The possible purchase of network signal scanners is being investigated.	Spring 2015		
Submitting assignments				
Purchase of a campus-wide plagiarism detection software license	Transition from Ephorus to Turnitin	Sep 1, 2014	✓	TU/e Fraud Prevention Project team, ICT, program management, STU.
Broader implementation of the use of the Ephorus campus license to lecturers	After the Fraud policy has been stipulated	Apr 1, 2015		TU/e Fraud Prevention Project team, ICT, program management, STU
Implementation of plagiarism check in BSc or MSc thesis	Developing	Apr 1, 2015		ICT table, Program leader Digital Assessment
Various professionalization courses for lecturers with regard to testing	Scheduled	Jan 1, 2015	✓	DPO
Evaluation				
Collect student feedback	Via Education Commissioners in Bachelor College Monitoring Group	Annually		Bachelor College
Evaluation of EC annual reports	Annually	March 1, 2015		CCKO, Examination Committees
Collect complaints		Continuously		Student counselor, STU

6 Imposing sanctions

In the event of fraud, sanctions shall be imposed that are appropriate in light of the breach of trust.

In all cases of fraud, a completed examination shall only be graded/evaluated when the Examination Committee has reached a decision regarding whether or not fraud has been committed and which sanctions would be appropriate. Any case of a student cheating is recorded in the student information system.

The examiner is responsible for ensuring that any reports on fraud are sent to the Examination Committee. The examiner must send the report to the Examination Committee of the program in which the student is enrolled and, where applicable, to the Examination Committee of the program to which the study component for which the examination in question was administered belongs, as soon as possible, together with the student's written comments, if provided. The Examination Committee of the program in which the student is enrolled shall establish a file. The Examination Committee must hear the student and consider the sanction to be imposed. The Examination Committee will penalize any student found to have cheated. This must occur within the legal framework. The intention is to complete this procure within four weeks after the fraud report has been submitted to the Examination Committee.

In principle, TU/e study programs implement a uniform policy for imposing sanctions to maintain a culture of scientific integrity at TU/e. Imposing uniform sanctions is necessary due to the existence of courses that transcend study programs. To this end, a protocol has been established (protocol for fraud in courses that transcend study programs: Sharepoint of the Examination Committees).

To ensure that the above-mentioned procedure is complied with and that uniform sanctions are imposed, case studies shall be discussed during the AEB and AEM consultation. The Examination Committees report cases of fraud in their annual reports every year. Table 4 provides an overview of actions and the state of affairs with regard to imposing sanctions in the event of fraud.

Table 4 *Actions with regard to imposing sanctions in the event of fraud*

Action	State of affairs	Planned	Ready	Parties involved
Uniform sanctions	A protocol for imposing uniform sanctions has been established for fraud connected with courses that transcend study programs	June 24, 2014	✓	AEB
Submit a report	In anticipation of the TU/e Central Examination Regulations, appendix 5 (report) is already in use	Sep 1, 2014	✓	DIZ
Impose sanctions in accordance with the Code of Scientific Conduct	Fraud policy (this document) and TU/e communication of the code of scientific conduct	Spring 2015		DAZ, STU, Deans
Report the case studies in the annual report	Practice	Annually		Examination Committees

7 Interim Tests

The goal of interim tests is to provide students with feedback that allows them to gain insight into the state of their development. The fact that students are encouraged to participate in the interim tests and the fact that they can already earn a part of the final grade during these interim tests – giving these texts a summative function – causes a dilemma. The summative function is extremely limited when it comes to determining whether someone can pass a course. Regardless of the grade earned for the interim tests, a minimum grade of 5.0 must be obtained for the final test to complete a course with a passing grade. Nevertheless, the interim test grades must also be obtained fairly and the examiner needs to take the potential opportunities for fraud into account when choosing a testing situation. From the beginning of December 2014, the policy regarding interim tests is being reassessed upon the instruction of the Bachelor College Dean. The Dean is forming a working group and instructing it to provide a recommendation on possible adjustments to the policy regarding interim tests before September 1, 2015, so that the conflict between the summative and the formative functions of interim tests can be minimized. In anticipation of this, this chapter was written completely based on the current practice of interim tests and will therefore need to be adapted to the working group's final advice.

In practice, there is a wide variety of interim testing methods. The basic principle is that each lecturer chooses a testing method that best matches the learning objectives for the course. A single set of rules for preventing fraud would not do justice to the desired diversity of interim testing methods and would be premature, considering the planned reassessment of the integral interim test policy (in other words, including the fraud policy). The decision has therefore been made in this initial draft to divide the interim tests into three categories, in line with the current practice: 1. Active participation, 2. (homework) assignments and 3. 'mini-examinations'. Although this categorization is not exclusive, it makes it easier to name the positive practical experiences - and the practical challenges - related to interim tests, so that these can be communicated as much as possible from a single mental image. The basic principle is that it must be made very clear that fraud, even in interim tests, is not proper for an academic study program.

7.1 Active participation

In some cases, active participation in planned teaching sessions is regarded as an interim test. During these teaching sessions, students receive feedback on specific assignments, giving them an additional opportunity to practice specific learning objectives in preparation for the examination. For this reason, students are informed in advance of why this testing method was chosen, which activities are expected during this active participation, and which rules concerning attendance apply. Since feedback is already given during the teaching session, no individual work is assessed afterwards for the purpose of determining the grade.

7.1.1 Application

This method of interim testing is especially suitable for situations in which students must or may collaborate, and in which a particular assignment can clearly be identified as preparation for the final level, without a grade for that part providing added value, and/or where it would be impossible to determine such a grade objectively.

7.1.2 Challenge

Identity fraud is probably the most problematic type of fraud for this method of interim testing. In order to prevent this type of fraud, active participation may only count when attendance can be measured. Working with manageable groups, registering attendance, and monitoring attendance are all possible measures that can be used to fairly ensure active participation. Examples of these measures include counting the signatures/initials of the attending students and/or checking the identities of those present by means of random sampling. Fraud committed during active participation must be reported to the Examination Committee, which will subsequently deliver a verdict in the matter and possibly impose a sanction.

7.2 (Homework) assignments

Assignments are defined as all types of interim tests that students work on at home or during lectures/tutorials, and which are handed in and assessed.

7.2.1 Application

Compared with an interim testing method involving active participation, working with (homework) assignments allows written feedback to be given individually. This method is mainly suitable for situations in which individual or group assignments are given, in which the desired process involves checking sources and/or communicating with peers to achieve an acceptable final result for a product that is to be assessed. This also is the case with comparable *final* course assignments. See the *Peer Assessment for Testing* advisory note (L.W. van Meeuwen, 2014) for guidance with using peer assessment for interim testing.

7.2.2 Challenge

The challenge of this testing method is to minimize the temptation for students to indiscriminately copy and paste text. The *informing, preventing, detecting and imposing sanctions* phases provide guidance.

Informing

Tell students what the objective of the chosen interim testing method is before they start the assignment. They should also be informed of the degree to which students are allowed to collaborate with each other on assignments and the conditions for this collaboration. Inform them of the extent to which they can expect correctional feedback and tell them about the measures that may be taken by the Examination Committee if a student is suspected of not submitting his/her own work and if he/she is also suspected of committing fraud. In the case of written assignments, students can be informed that these assignments will be checked for plagiarism.

Prevention

It is preferable to choose an assignment that makes fraud (especially plagiarism) impossible (for example, updating the assignment each year, allowing individual choices to be made in the assignment so that copying is pointless). If that cannot be accomplished, extra plagiarism detection measures would be advisable (for example, using a tool to randomly test for

plagiarism). Informing students about plagiarism detection measures can also have a preventative effect.

Detection

An Ephorus campus license is available for the detection of plagiarism in written assignments. Peach is available for programming work. If fraud/plagiarism rules are broken, feedback is provided. Inform the Examination Committee if necessary. It is advisable to use testing analyses to regularly monitor if the expected correlations between the interim test scores and the scores for (parts of) the final tests actually arise. In the event of unexpected discrepancies between interim test scores and scores for (parts of) the final tests, it would be advisable to reconsider the chosen testing method.

Imposing sanctions

The Examination Committee delivers a verdict on the suspicion of fraud, taking into account the information given to students in advance, the feedback first given to the student, and the measures taken by the lecturer to prevent fraud.

7.3 Mini-examinations

Measuring certain knowledge and/or skills requires testing situations that are more controlled. Such situations meet the need for assessing knowledge or skills using limited tools. These are often called mini-examinations, because they are often administered to large groups of students at the same time in a setting similar to a final test setting, and because they can have a significant impact on the final grade (up to 30% in practice) as soon as the minimum requirements for the final test have been met. The main difference with the final test setting is that these interim tests cover a smaller portion of the material to be studied for the examination and that - despite the high percentage mentioned above - their summative function is more limited. For, the decision on whether a student passes a course or not is mainly linked to the minimum requirements for the final test, because the student needs to score at least a 5.0 at the final test to be able to earn a passing grade for the course.

7.3.1 Application

Some mini-examinations have been designed in such a way that they require extra facilities (such as proctors). In that case, a request for extra facilities can be submitted to the Dean of the Bachelor College. The Dean of the Bachelor College shall allow the use of extra facilities as much as possible.

7.3.2 Challenge

The extent to which the use of sources or collaboration between students during interim tests must be restricted largely determines the extent to which a controlled testing environment should be created and facilitation allowed by the Dean. The degree of collaboration or source usage can vary from a group of students jointly answering a (Clicker) question to individual students answering a test question on paper. The challenge with mini-examinations arises when individual assignments are given and students are not allowed to use sources. The challenge of this testing method is to minimize the temptation for students to communicate

with each other and/or use sources without permission. The *informing, preventing, detecting and imposing sanctions* phases provide guidance for dealing with this challenge.

Informing

Before administering a mini-examination, inform the students about the goal of the chosen interim testing method. Students should also be informed about which aids are permitted during the examination and which sanctions may be imposed if they are caught violating the applicable regulations. Clearly explain what rules apply to the use of students' own devices (such as Clickers or laptops), so that the correct identity of the student that submitted the work can afterwards be established.

Prevention

First of all, lecturers are challenged to choose a testing method that ensures that fraud (for example, cheating, identity fraud, communication, using (digital) sources) is pointless. If that cannot be accomplished, the lecturer must investigate what measures can be taken to compel students to work individually and to limit the unauthorized use of sources. The use of the Shuffle tool or a different method for creating multiple test versions could be an option. Do not allow restroom visits during this type of testing. Insofar as it is possible and necessary, the Dean shall make facilities available for the prevention of fraud during testing (a large room or proctors, for example).

Detection

Where fraud detection during mini-examinations is needed, this will in general be provided by TU/e staff. If the Dean approves facilitation, external proctors are available. It is possible to use student-assistants for support. However, lecturers need to be aware of the fact that student-assistants may have a conflict of loyalty with peers. The lecturer must take measures to prevent this. This can be done by selecting the right individuals and explaining to the student-assistants that they will also be accused of fraud if they are complicit in an act of fraud committed by a fellow student. If a student-assistant helps a fellow student to commit fraud, sanctions can also be imposed on that student-assistant by the Examination Committee. When administering mini-examinations whereby a. individual input is expected, b. communication between students must be restricted to a minimum and/or c. the number of sources is limited, the same considerations apply as to the final tests: 1. the risk of identity fraud, 2. the risk of unauthorized communication and 3. the risk of unauthorized use of sources. Checking for these points (randomly) is advisable when the integrity of an interim test grade is at risk. The standard official report (see the Central Examination Regulations) can be used when any discrepancy is detected, allowing the case to be handled by the Examination Committee and, in the event of fraud, a note to be made in the student's dossier so that any repeat offenders can be identified.

Imposing sanctions

The Examination Committee shall deliver a verdict on the suspicion of fraud, and can take into account the information given to students in advance and the fraud prevention measures taken by the lecturer.

7.4 Interim test considerations

The success of interim tests seems to depend on an optimal test design that is based on the function (formative and more or less summative) and the chosen testing method in relation to both the challenge and the usefulness of the feedback that the test provides to the student.

With regard to testing, the lecturer is responsible for finding an optimal balance between the function(s), the method, the challenge, the feedback and the available resources. The educational management is subsequently jointly responsible for helping lecturers to choose a test design and/or supporting the chosen test design with facilities if an acceptable alternative testing method that does not require facilitation cannot be found.

Table 5 provides an overview of actions and the state of affairs with regard to fraud prevention in interim tests.

Table 5 *Actions with regard to fraud prevention in interim tests*

Action	State of affairs	Planned	Ready	Parties involved
Re-evaluation of policy on interim tests	Commission to give advice on policy in interim tests	Dec. 2014 – Sept. 2015		Dean BC

8 Roles and responsibilities

Figure 2 provides an overview of the responsibilities that actors have with regard to informing about, preventing and detecting fraud, as well as imposing sanctions in the event fraud is committed.

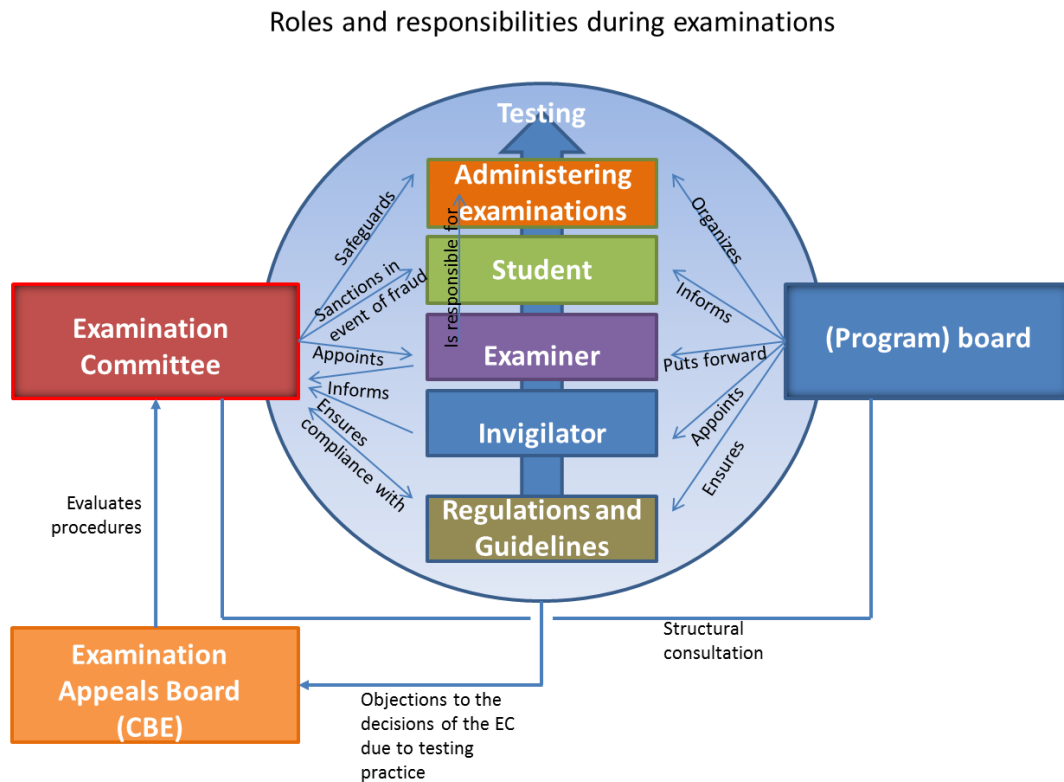


Figure 2 Roles and responsibilities during examinations at TU/e (L.W. van Meeuwen, 2014)

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