

# Manual FEEST Spreadsheet

## FEedback on Exams for Students and Teachers

### Introduction

A course often ends with a final exam. This exam should test how well a student understands the various topics discussed in the course. An analysis of the work of an individual student, as well as, the the work of the whole class, provides valuable information for the student and for the teacher.

Informed students will be aware of their strong and weak points. For students that passed the course, this can be of importance when starting new courses in which pre-knowledge on topics of the exam is used, and, for those that failed the exam, when they are preparing for the resit.

Informed teachers will not only get a better idea of the quality of the exam, but will also be able to offer better support to students preparing for a resit of the exam.

The goal of the project FEEST is twofold:

- provide teachers with a tool to analyze exams and report this analysis to their students;
- use the analysis of the exam to guide students preparing for a resit of the exam.

In this manual we describe the spreadsheet which we developed to analyze the test results. This spreadsheet also contains the input for a creating a personalized email, containing the analysis of the individual exam, which can be sent to the student.

### The spreadsheet

The spreadsheet consists of several Tabs:

- General data
- Grades
- Analysis
- Analysis of Topics

- Topic 1 up to 8
- Comments
- Emails

We discuss the content of each tab.

In general, white fields in the spreadsheet should be filled by the teacher. The other colored fields are fixed or automatically filled.

## General data

In this tab we find fields for data on the exam that have to be provided by the teacher.

**Analysis of Exams with Open Questions** Fill out the parts that are in white

Exam	0EBO													
Date	01/03/16													
Number of students	1831 (maximal 2000)													
Number of items	20 (maximal 60)													
Passing score	5													

ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Maximum score	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Weight of Items (multiplier, usually 1)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>TOPICS (provide your topics)</b>														
Modeling purposes	1	1	1											
Modeling dimensions				1	1									
Modeling process						1	1	1						
Concepts, properties, types and relations									1	1	1	1		
Units, scales and dimension													1	1
States and state charts														
Time and state transitions														

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Name	Description
Exam	Code of the exam
Date	Date of the exam
Number of students	Number of participants (max 2000)
Number of items	Number of items with a score (max 60)
Passing score	Passing score on scale 0-10
Name	Name of the item
Maximum score	Maximum score on the item
Weight of item	Multiplier of the score on the item (default value is 1)
Topics	List of at most 8 topics. In the table one can put an item score in each topic

row. This provides the multiplier of the item within the topic.

## Grades

GRADES		Provide the Name, Idnumber and scores																																	
Exam:		0EB0																																	
Date:		01/03/16																																	
number of students:		1831																																	
number of items:		20																																	
		Items																																	
Student IDs		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
	Maximum Score	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Weight of Items	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Grades	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
ime	2910	5	0	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
esg	1762	4.5	0	0	0	1	0	1	0	1	0	0	1	1	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	0	1	0	1		
oor	9240	8.5	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1		
ots	5247	6	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0		
raa	9637	6.5	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	1	1		
rou	7291	6.5	0	1	0	1	0	1	0	1	1	1	0	1	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1		
anj	5067	5	0	1	0	1	1	0	1	0	0	0	1	1	1	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0		
anz	9315	4	0	0	0	1	0	1	1	1	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	1	
asf	5055	5	0	1	0	1	0	1	0	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
ejd	1445	5	0	0	0	1	0	1	1	1	1	1	0	1	0	1	0	1	0	0	0	1	1	0	1	1	0	1	0	1	0	1	1		
ille	9785	6.5	0	1	0	1	0	1	0	1	1	0	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	1	1	1		
utz	5999	6.5	0	0	1	1	0	1	1	1	0	0	1	1	1	0	1	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	
tyd	3264	7	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
vns	0078	6	0	1	0	1	0	1	1	1	0	1	1	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
eld	1069	7.5	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	1	
em	6707	6.5	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
taa	8875	6.5	0	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
z, H	7944	6.5	0	1	0	1	1	0	1	0	1	1	1	1	1	1	0	1	0	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1

In this tab we encounter the following:

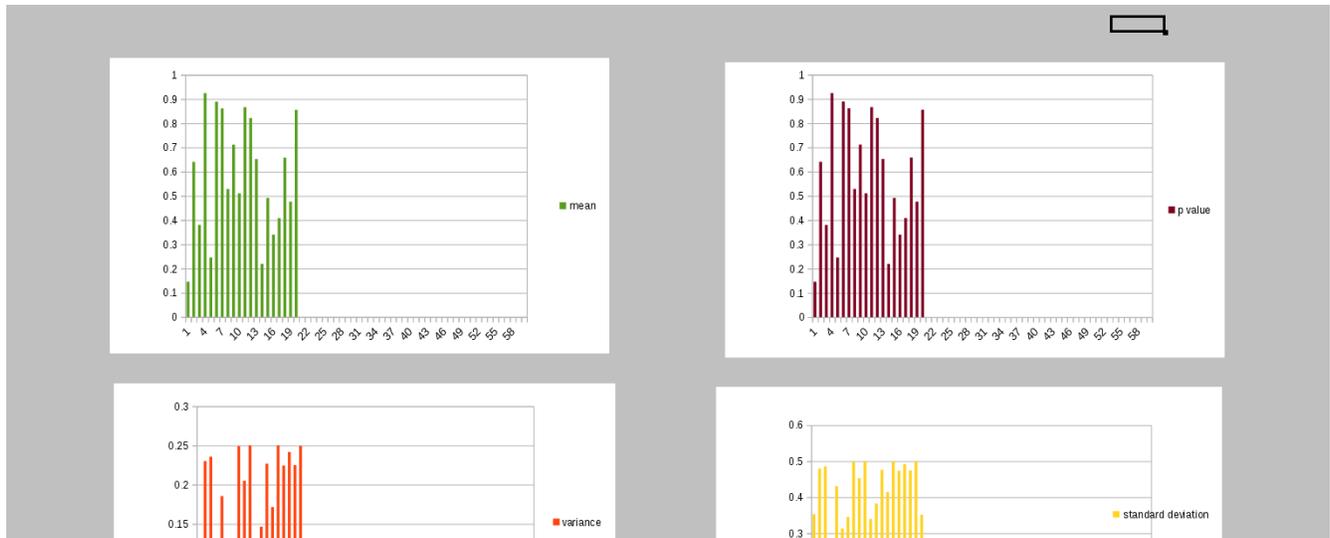
Name	Description
Name	Name of the student
Student ID	ID number of the student
Items	Scores for the individual items by the individual students
Grades	Automatically computed grades (scale 0-10)
Total	Total score

## Analysis

Both a textual and graphical presentation of the analysis of the exam.

We present the distribution of the scores, the variance, standard deviation, mean score mean grade, Cronbach-alpha and Standard error.

For each of the item we present the mean, variance, standard deviation, p-value, rit-value and rir-value.



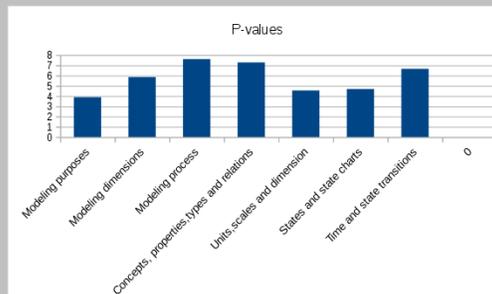
## Analysis of the topics

We present the mean scores for each of the topics.

### ANALYSIS OF THE TOPICS

Topics	P-values
Modeling purposes	3.883934426
Modeling dimensions	5.852459016
Modeling process	7.613606557
Concepts, properties, types	7.278688525
Units, scales and dimension	4.548469945
States and state charts	4.689016393
Time and state transitions	6.661202186
	0 #DIV/0!

#### SCORES ON SCALE 1-10



## Topic 1 up to 8

Data sheet for each of the topics.

