

USE OF THE INTERNET FOR EFFICIENT COURSE ADMINISTRATION

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Abstract

The University of Kaiserslautern's Internet- and multimedia based university level physics distance education project FiPS not only uses the Internet to teach physics but also to make course administration more effective and efficient for both the staff and the students. The system developed at FiPS enables students to check their course performance and to compare it with the overall performance of all students whenever and wherever they want. The staff can use the system to get a fast and complete overview, making it possible to identify problems and to take measures early.

Introduction

If a lecture is accompanied by an e.g. weekly exercise, tutors have to correct and assess exercises dealt with by the students. These assessments are later forwarded to the head of the exercise who keeps track of the performance of all students and who decides at the end of the semester which student has successfully passed the semester and which student has not successfully passed the semester. The Internet can be used to make this process more efficient and transparent for the staff and the students.

Motivation

To make this process more efficient and transparent, the system should fulfil the following needs:

- By means of a web browser the students can get an overview about their actual performance (which means the number of points getting granted for the exercise assignments to the student by the tutor) at any time and from any place.
- By means of a web browser the staff and the lecturer can get an overview about the actual performance of individual students and all students regarding individual exercise assignments, individual exercises and all exercise of the semester at any time and from any place in numerical and graphical form.
- By means of a web browser the staff can input and update the assessments of their students at any time and from any place.
- It must be possible for the students to set their performance into relationship with the performance of other students.
- It must be possible for the students to know if they have fulfilled the requirements for passing the semester.

Realisation

The system fulfilling these needs has been realized by a set of Java Servlets, which provide the staff with a web based form to make their assessments [fig. 1]. They also provide the students and the staff with a table like output of the granted points [fig. 2]. While the students can only get an insight into their own assessments, the staff can take a look at the assessments of all students (depending on the rights given to them by the head of the exercise). Besides a

table like text output the students and the staff can also access a graphical, histogram like output of the performance of all students in an individual exercise assignment, an individual exercise or all exercises. [fig. 3].

Conclusion

The system is especially useful for off campus students like the FiPS students who don't know much about the performance of other students. As it is important for students in the first semester to set their performance into relationship with their fellow students (if they don't want to get desperate without reason) the use of the system may also make sense for on campus students. Institutions interested in using the system may contact fips@physik.uni-kl.de to get the software the help needed for its implementation.

Figures

figure 1: input form for making assessments by the staff

Punktetabellen - FiPS 1, Professor Jodl, SS 2001 - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Eingabe der Übungspunkte

FiPS 1, Professor Jodl
(SS 2001, Gruppe 1: Bodo Eckert)

[Carsten Groß, 15.07.2001]

Bitte beachten Sie bei der Eingabe:

Geben Sie bitte in das entsprechende Feld die erreichte Punktzahl ein! Unterscheiden Sie immer zwischen 'nicht abgegeben' und 0 Punkten. Im ersten Fall sollte das Feld leer bleiben (alternativ: 'na'), im zweiten ist dort die Zahl '0' einzugeben.

(1) Arnold, Barbara				
Aufgabe 1	Punktzahl	<input type="text" value="7,0"/> von <input type="text" value="8,0"/>	Bemerkungen	<input type="text" value="sehr eleganter Ansatz"/>
Aufgabe 2	Punktzahl	<input type="text" value="2,0"/> von <input type="text" value="2,0"/>	Bemerkungen	<input type="text"/>
Aufgabe 3	Punktzahl	<input type="text" value="na"/> von <input type="text" value="1,0"/>	Bemerkungen	<input type="text"/>
Aufgabe 4	Punktzahl	<input type="text" value="na"/> von <input type="text" value="3,0"/>	Bemerkungen	<input type="text"/>
(2) Beckert, Bodo				
Aufgabe 1	Punktzahl	<input type="text" value="7,0"/> von <input type="text" value="8,0"/>	Bemerkungen	<input type="text"/>
Aufgabe 2	Punktzahl	<input type="text" value="2,0"/> von <input type="text" value="2,0"/>	Bemerkungen	<input type="text"/>

Fertig

Internet

student name

exercise assignment

granted points

maximum number of points

comment

The tutor chooses the student he wants to assess and inputs the granted points into a web based form (“na” indicated that the student has not dealt with the exercise assignment). He can also include comments in his assessment, which will be visible for the student and the head of the exercise.

figure 2: table like output of granted points for staff

(number of exercise) number of exercise assignment

Anzeige der Übungspunkte
FIPS 1, Professor Jodl
(SS 2001)
[Carsten Groß, 20.07.2001]

1 2 3 4 5 6 7 8 9 10

Hauptseite Nach Namen suchen oder Seitenzahl eingabe Optionen

(1) Beckes, Daniel (Gruppe 1, Bodo Eckert)										
Aufgabe	01	02	03	04	05	06	07	08	09	10
Punkte	7,0	2,0	1,0	2,0	7,0	10,0	8,0	7,0	8,0	10,0
Durchschnitt	6,4	1,1	0,9	2,1	5,3	6,8	6,5	5,9	5,5	7,9
maximal	8,0	2,0	1,0	3,0	10,0	10,0	8,0	7,0	8,0	10,0
Aufgabe	11	12	13	14	15	16	17	18	19	20
Punkte	6,0	7,0	10,0	9,0	7,5	11,0	8,0	10,0	5,0	10,0
Durchschnitt	6,3	6,9	11,0	8,1	8,2	5,1	8,2	7,1	2,9	
maximal	12,0	13,0	10,0	15,0	10,0	12,0	8,0	10,0	15,0	10,0
Aufgabe	21	22	23	24	25	26	27	28	29	30
Punkte	0,0	6,0	5,0	6,5	9,0	9,0	3,0	3,5	8,0	9,0
Durchschnitt	0,8	8,4	4,3	4,9	6,1	7,0	3,4	3,9	4,5	5,2
maximal	10,0	13,0	7,0	12,0	9,0	9,0	7,0	5,0	9,0	10,0
Aufgabe	31	32	33	34	35	36	37	38	39	40
Punkte	4,0	5,0	2,0	10,0	10,0	7,0	6,0	8,0	10,0	7,0
Durchschnitt	2,4	3,3	1,0	2,6	7,9	3,6	3,3	4,9	6,5	5,9

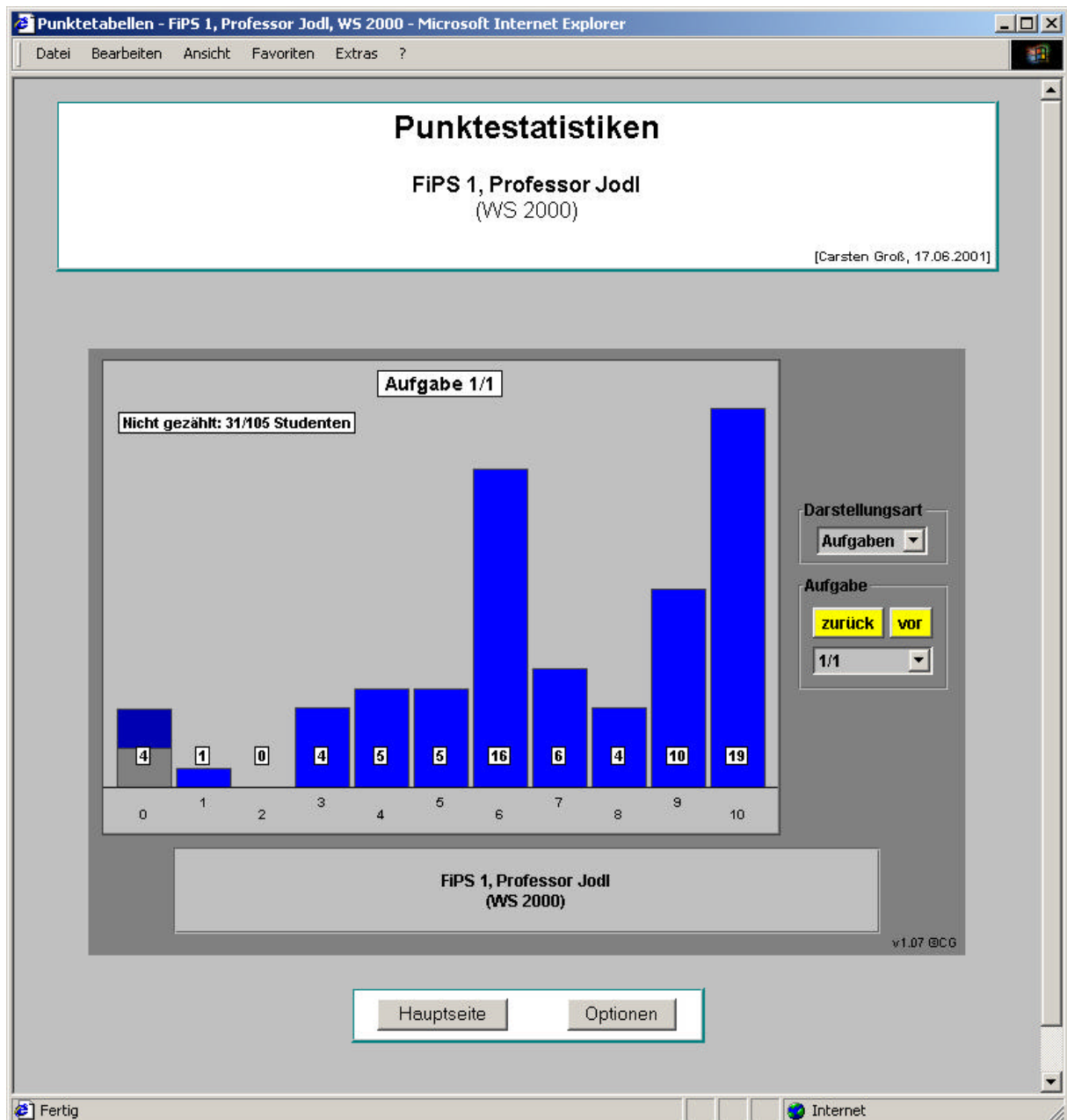
maximum number of points

average number of points graded to all students

number of points granted to the student

Table style output points granted to students with different exercises separated by different colours. The first exercise did consist of 4 exercise assignments .

figure 3: graphical, histogram style output of the performance of all students



Graphical output of the points achieved by all students intended for student and staff use. The granted points can be shown for an individual exercise assignment, an individual exercise or all exercises. 31 of 15 students did not deal with this exercise assignment.