

Course description

Course abbreviation:	KI/PGR	Page:	1 / 3
Course name:	Computer Graphics		
Academic Year:	2012/2013	Printed:	27.04.2024 03:40

Department/Unit /	KI / PGR			Academic Year	2012/2013
Title	Computer Graphics			Type of completion	Exam
Accredited/Credits	No, 5 Cred.			Type of completion	Combined
Number of hours	Přednáška 2 [HOD/TYD] Seminář 2 [HOD/TYD]			Course credit prior to	YES
Occ/max	Status A	Status B	Status C	Counted into average	YES
Summer semester	0 / -	0 / -	0 / -	Min. (B+C) students	not determined
Winter semester	43 / -	0 / -	0 / 0	Repeated registration	NO
Timetable	Yes			Semester taught	Winter semester
Language of instruction	Czech, English			Internship duration	0
Optional course	Yes			Ev. sc. – cred.	S/N
Evaluation scale	1 2 3 4				
No. of hours of on-premise					
Auto acc. of credit	No				
Periodicity	K				
Substituted course	None				
Preclusive courses	KI/CGR				
Prerequisite courses	KI/MPG				
Meet all prerequisites before registering					NO
Informally recommended courses	N/A				
Courses depending on this Course	KI/PPGR				

Course objectives:

The course is dedicated to the theory and algorithms of 2D and 3D computer graphics. The students are acquainted with the following topics: color spaces; 2D elements drawing; area filling, clipping; systems of coordinates; objects transformation; scene representation and modeling; objects operations; curves and surfaces; projection methods; hidden surfaces removal; illumination models, shading and shadows.

Requirements on student

Content

2D elements drawing; area filling, clipping; systems of coordinates; objects transformation; scene representation and modeling; objects operations; curves and surfaces; projection methods; hidden surfaces removal; illumination models, shading and shadows

Prerequisites - other information about course preconditions

Teaching in English is meant only for erasmus and foreign students. In the case of a small number of students is teaching in a form of individual consultations.

Competences acquired

Fields of study

Guarantors and lecturers

- Guarantors:** prof. RNDr. Rudolf Hrach, DrSc. (100%)
- Lecturer:** prof. RNDr. Rudolf Hrach, DrSc. (100%), Ing. Pavel Kuba, Ph.D. (100%)
- Seminar lecturer:** Ing. Pavel Kuba, Ph.D. (100%)

Literature

- **Basic:** Žára J., Beneš B., Felkel P. *Moderní počítačová grafika*, 2. vydání. null. Computer Press, Brno, 2005. ISBN null.
- **Extending:** Sochor, J., Žára, J., Beneš, B. *Algoritmy počítačové grafiky*, Praha, ČVUT. 1996.
- **Extending:** Beneš, B., Felkel, P., Sochor, J., Žára, J. *Vizualizace*, Praha, ČVUT. 1997.

Teaching methods**Assessment methods****Course is included in study programmes:**

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Applied Informatics	Bachelor	Full-time	Information Systems	1	A8	2012	Povinné předměty	A	3	ZS
Applied Informatics	Bachelor	Full-time	Information Systems	1	A12	2012	Povinné předměty	A	3	ZS
Applied Informatics	Bachelor	Full-time	Information Systems	1	A11	2012	Povinné předměty	A	3	ZS
Geography	Bachelor	Full-time	Information Sciences (double subject)	1	A6	2012	Povinné kurzy	A	3	ZS
Chemistry	Bachelor	Full-time	Informatics	1	A6	2012	Povinné kurzy	A	3	ZS
Chemistry	Bachelor	Full-time	Informatics Focused on Education	1	A10	2012	Povinné kurzy	A	3	ZS
Informatics	Bachelor	Full-time	Informatics Focused on Education	1	A10	2012	Povinné kurzy	A	3	ZS
Informatics	Bachelor	Full-time	Informatics Focused on Education	1	A7	2012	Povinné kurzy	A	3	ZS
Informatics	Bachelor	Full-time	Information Sciences (double subject)	1	A8	2012	Povinné kurzy	A	3	ZS
Mathematics	Bachelor	Full-time	Informatics focused on Education	1	A7	2012	Povinné kurzy	A	3	ZS
Mathematics	Bachelor	Full-time	Informatics focused on Education	1	A10	2012	Povinné kurzy	A	3	ZS
Mathematics	Bachelor	Full-time	Information Sciences (double subject)	1	A6	2012	Povinné kurzy	A	3	ZS
Physics	Bachelor	Full-time	Informatics	1	A6	2012	Povinné kurzy	A	3	ZS
Physics	Bachelor	Full-time	Informatics focused on Education	1	A10	2012	Povinné kurzy	A	3	ZS
Geography	Bachelor	Full-time	Information Sciences (double subject)	1	A10	2012	Specializační předměty - počítačová grafika	B	3	ZS
Chemistry	Bachelor	Full-time	Informatics	1	A10	2012	Specializační předměty - počítačová grafika	B	3	ZS
Informatics	Bachelor	Full-time	Information Sciences (double subject)	1	A10	2012	Specializační předměty - počítačová grafika	B	3	ZS
Mathematics	Bachelor	Full-time	Information Sciences (double subject)	1	A10	2012	Specializační předměty - počítačová grafika	B	3	ZS

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Physics	Bachelor	Full-time	Informatics	1	A10	2012	Specializační předměty - počítačová grafika	B	3	ZS
