Course description

Department/Unit /	KI / BIT			**Academic Year**	2014/2015
Title	IS/IT Security			**Type of completion**	Pre-Exam Credit
Accredited/Credits	No, 2 Cred.			**Type of completion**	Combined
Number of hours	Přednáška 2 [HOD/TYD]				
Occ/max	Status A	Status B	Status C	**Course credit prior to**	NO
Summer semester	18 / -	0 / -	0 / -	**Counted into average**	NO
Winter semester	0 / -	0 / -	0 / -	**Min. (B+C) students**	not determined
Timetable	Yes			**Repeated registration**	NO
Language of instruction	Czech, English			**Semester taught**	Summer semester
Optional course	Yes			**Internship duration**	0
Evaluation scale	S|N				
No. of hours of on-premise					
Auto acc. of credit	No				
Periodicity	K				
Substituted course	KI/P606				
Preclusive courses	N/A				
Prerequisite courses	N/A				
Informally recommended courses	N/A				
Courses depending on this Course	N/A				

Course objectives:

This course will deal with data transfer security in distributed surroudings in a not-safe networks and information systems. The important part of the course will be devoted the technology of three "A", it means authentication, authorization and accounting and access control, cryptography, data integrity, keys distributing, types of attack against transfered data, firewalls, etc.

Requirements on student

Content

1. Introduction to problematics. Security policy.
2. Autentication, Authorization, Accounting.
3. Types and priciples of attacks.
4. Malware (viruses, worms, adware, spyware).
5. Safety communication (IPsec, SSH, SSL). VPN.
6. Firewalls.
7. Security in IPv6.
8. Wireless networks security.

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:** doc. RNDr. Mgr. Viktor Maškov, DrSc. (100%)
- **Lecturer:** Ing. Toni Koluch, Ph.D. (100%), doc. RNDr. Mgr. Viktor Maškov, DrSc. (100%)

Literature

- **Basic:** Pužmanová R. *TCP/IP v kostce*. null. Kopp, Č. Budějovice, 2003. ISBN null.
- **Basic:** Dostálek L. a kol. *Velký průvodce protokoly TCP/IP: bezpečnost*. Computer Press, 2003.
- **Extending:** Strebe M., Perkins C. *Firewally a proxy-servery*. Computer Press, Brno, 2003.
- **Extending:** Naik D. C. *Internet: standardy a protokoly*. Computer Press, Brno, 1999.
- **Extending:** Dostálek L., Kabelová A. *Velký průvodce protokoly TCP/IP a systémem DNS*. null. Computer Press, 2003. ISBN null.

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	A12	2014	Povinné předměty	A	3	LS
Applied Informatics	Bachelor	Full-time	Information Systems	1	A13	2014	Povinné předměty	A	3	LS
Applied Informatics	Bachelor	Full-time	Information Systems	1	A11	2014	Povinné předměty	A	3	LS
Applied Informatics	Bachelor	Full-time	Information Systems	1	A8	2014	Povinné předměty	A	3	LS
Mathematics	Bachelor	Full-time	Mathematical informatics	1	A9	2014	Povinné předměty	A	3	LS
Geography	Bachelor	Full-time	Information Sciences (double subject)	1	A10	2014	Specializační předměty - počítačové sítě	B	3	LS
Geography	Bachelor	Full-time	Information Sciences (double subject)	1	A6	2014	Specializační předměty - počítačové sítě	B	3	LS
Chemistry	Bachelor	Full-time	Informatics	1	A10	2014	Specializační předměty - počítačové sítě	B	3	LS
Chemistry	Bachelor	Full-time	Informatics	1	A6	2014	Specializační předměty - počítačové sítě	B	3	LS
Informatics	Bachelor	Full-time	Information Sciences (double subject)	1	A8	2014	Specializační předměty - počítačové sítě	B	3	LS
Informatics	Bachelor	Full-time	Information Sciences (double subject)	1	A10	2014	Specializační předměty - počítačové sítě	B	3	LS
Mathematics	Bachelor	Full-time	Information Sciences (double subject)	1	A10	2014	Specializační předměty - počítačové sítě	B	3	LS

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Mathematics	Bachelor	Full-time	Mathematics and its application in natural sciences	1	A12	2014	Modul II - Matematická informatika	B	3	LS
Physics	Bachelor	Full-time	Informatics	1	A10	2014	Specializační předměty - počítačové sítě	B	3	LS
Physics	Bachelor	Full-time	Informatics	1	A6	2014	Specializační předměty - počítačové sítě	B	3	LS