SOFTWARE ENGINEERING

Course Syllabus

Computer Science Engineering School
DSIC – UPV

Goals ISW

- Study methods, techniques and current tools for high quality software development.
  - Object oriented paradigm during the complete lifecycle.
    - Modeling
    - Design
    - Implementation
    - Testing

- Development of software projects

- Field "Software Engineering"

Teaching structure

6 Credits

- Theory: 4.5

  Theoretical contents: 1.5 &   Seminars: 3
- Lab Sessions: 1.5

Teaching organization:

- 10 theoretical content sessions
- 20 seminar sessions
- 10 lab sessions

(Session duration : **1h. 30 min**.)

Lecturers

Group	Lecturers		e-mail
3A (Valencià)	Mari Carmen Penadés Mari Carmen Penadés	TA-3A L1-3A y L2-3A	mpenades@dsic.upv.es mpenades@dsic.upv.es
3B (Castellano)	Manuel Llavador	TA-3B L1-3B, L2-3B	mllavador@iti.es
3C (Castellano)	Javier Jaén, Carlos Cetina José A. Carsí	TA-3C L1-3C y L2-C	fjaen@upv.es, cetina@upv.es pcarsi@dsic.upv.es
3D (Castellano)	Gema Ibáñez	TA-3D, L1-3D, L2-3D	geibsan@upvnet.upv.es
3E (English)	Javier Jaén Javier Jaén	TA-3E L1-3E y L2-3E	fjaen@upv.es
3F (Castellano)	José Hilario Canós, Mari Carmen Penadés Gema Ibañez	TA-3F L1-3F	jhcanos@dsic.upv.es mpenades@dsic.upv.es geibsan@upvnet.upv.es
3G (Castellano)	Manuel Llavador, Carlos Cetina Javier Jaén José A. Carsí	TA-3G L1-3G L2-3G	mllavador@iti.es, cetina@upv.es fjaen@upv.es pcarsi@dsic.upv.es
4GIA (Castellano)	Soledad Valero Jose A. Carsí	4GIA L1-GIA y L2-GIA	svalero@dsic.upv.es pcarsi@dsic.upv.es

Contents

Lab Assignments

Lab Sessions

Lab 1. Development Environment and Project Management

Lab 2. OO Design. Business Logic(Classes Design)

Lab 3. OO Design. Business Logic (Constructors Design)

Lab 4. OO Design. Persistence Design*(Deliverable 1)*

Lab 5. Implementation Use Cases and tests.

Lab 6. Implementation Use Cases and tests.

Lab 7. Implementation Use Cases and tests. *(Coevaluation + Questions)*

Lab 8. Implementation Presentation Layer.

Lab 9. Implementation Presentation Layer

Lab 10. Final Evaluation. *(Deliverable 2)*

Lab sessions starting:
October 1st

- Visual Studio/C#

-Work in teams: 4 members

Calendar

SEMANA	L	M	X	J	V	
16-sep-24						
23-sep-24						
30-sep-24		S1	S1	S1	S1	
07-oct-24	S1	(S2)miércoles	festivo	S2	S2	
14-oct-24	S2	S2	S3	S3	S3	
21-oct-24	S3	S3	**S4**	**S4**	**S4**	ENTREGA1
28-oct-24	**S4**	**S4**	exámenes	exámenes	festivo	ENTREGA1
04-nov-24	exámenes	exámenes	exámenes	S5		Comprobación
11-nov-24	S5	S5	S5	S6	S5	Comprobación
18-nov-24	S6	S6	S6	S7	S6	
25-nov-24	S7	S7	S7	S8	S7	Coevaluación + Pregu
02-dic-24	S8	S8	S8	S8(viernes)	festivo	Coevaluación + Pregu
09-dic-24	S9	S9	S9	S9	S9	
16-dic-24	**S10**	**S10**	**S10**	**S10**	**S10**	ENTREGA FINAL

Grading

Theory	Nº Acts	Weight
Written exam (open answers)	1	40 %
Practical Cases (lecture exams)	2	10 %

1) Act Theory – Jan 10th
2) (Retake) – Jan 28th

Seminars
   Weight: 5% each

Labs	Nº Acts	Weight
Project	2	40 %
Co-evaluation	1	10 %

Lab Session 4 & 10
weight (10%, 30%)

- <u>Grading conditions</u>
  - Written exam grade >= 4   (Possible Retake)
  - Project overall Grade >= 4 (Possible Retake)
  - Individual project grading based on contribution by each team member
  - Overall Grade >=5
  - Practical Cases may not be retaken

"Any detected copy in the evaluation acts will result in a grade value of 0"

Grading (Students no required attendance)

	Nº Acts	Weight
Written exam (open answers)	1	50 % ➡

1) Act Theory – Jan 10th
2) (Retake) – Jan 28th

	Nº Acts	Weight
Project	2	40 % ➡
Co-evaluation	1	10 %

Lab Session 4 and 10
Weights (10%, 30%)

- <u>Grading conditions</u>
  - Written exam grade >= 4   (Possible Retake)
  - Project overall Grade >= 4 (Possible Retake) Individual project grading based on contribution by each team member
  - Overall Grade >=5

"Any detected copy in the evaluation acts will result in a grade value of 0"

Traversal Competencies UPV

- http://www.upv.es/contenidos/COMPTRAN/

- *Added value to your CV (annex to your academic record)*
- *Qualitative grading: A, B, C, D*

- **ISW** is control point (contributes to the evaluation):
  - CT6 – Team work and leadership
    - Lab Project, evaluated by means of co-evaluation of co-team members and lecturer assessment
  - CT8 – Effective communication
    - Open answer questions in written tests
    - Video presentation of the work done for your lab assignment, evaluated by means of co-evaluation (class peers)

References

- **Booch, G**. UML. El Lenguaje Unificado de Modelado. Guía de Usuario. Addison-Wesley, 2000.

- **Object Management Group**. Unified Modeling Language Specification, www.omg.org.

- **Rumbaugh, J**. et al., Modelado y Diseño Orientados a Objetos. Prentice-Hall Iberoamericana, 1996.

- **Booch, G**. Análisis y Diseño Orientado a Objetos con Aplicaciones, Addison-Wesley, 1996.

- **Stevens, P., Pooley, R.** Utilización de UML en Ingeniería del Software con Objetos y Componentes. Addison-Wesley Iberoamericana 2002.

- **Robert C. Martin**, UML para programadores Java. Addison-Wesley, 2004

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- **Sommerville, I.** Ingeniería del Software. (8ª ed.). Addison-Wesley, 2008.

- **Pressman, R**., Ingeniería del Software. Un enfoque práctico (6ª ed.). McGraw-Hill, 2005.

- **Weitzenfeld, A.,** Ingeniería del Software OO con UML. Java e Internet. Thomson, 2005

- **Budd ,T.**, *Introducción a la Programación Orientada a Objetos,* Addison-Wesley Iberoamericana 1994.

- **Booch, G**. et al., *El Lenguaje Unificado de Modelado. UML 2.0*. 2ª Edición. Addison-Wesley, 2006.

- **Rumbaugh, J**. et al., *UML. El Lenguaje Unificado de Modelado. Manual de Referencia*. Addison-Wesley, 2000.