Software Systems Verification and Validation

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Software Systems Verification and Validation

"Tell me and I forget, teach me and I may remember, involve me and I learn."

(Benjamin Franklin)

Outline

- Class schedule

- What you learned

- Grading
  - Overall activity
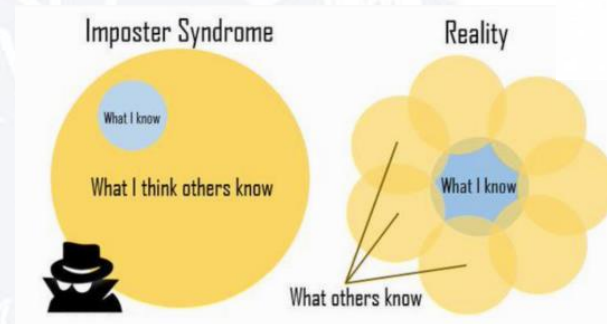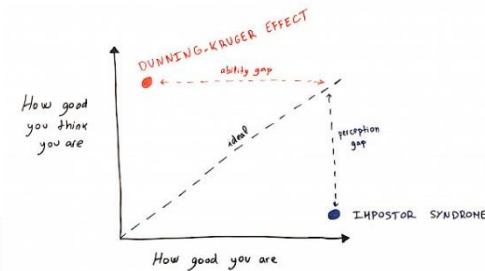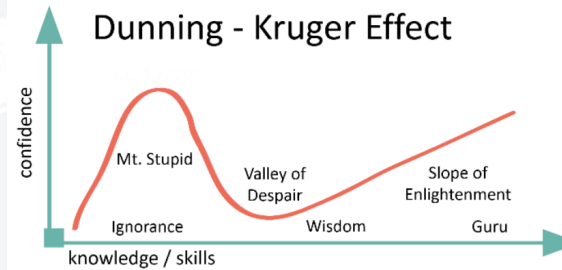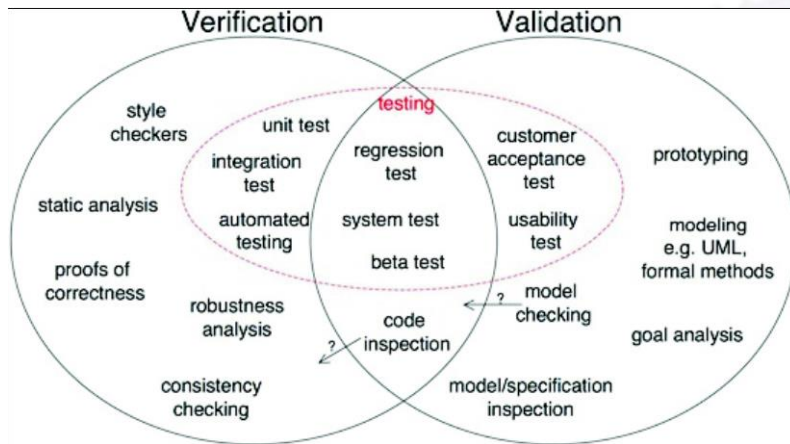 - Seminar activity
  - Laboratory activity

Class schedule

Software Systems Verification and Validation (tentative schedule)				
Week	Date	Lecture	Seminar	Laboratory
1	26 feb – 1 mar	Inspection	Inspection	Inspection
2	4 -8 mar	Testing. BBT		
3	11-15 mar	WBT	BBT	BBT
4	18-22 mar	Levels of testing, Pipeline, Bogdan Iudean		
5	25-29 mar	Invited Lecture EVOZON (pending)	WBT	WBT
6	1-5 apr	Agile		
7	8-12 apr	Invited Lecture Altom (pending)	Levels	Levels
8	15 -19 apr	Symbolic exe.; Model checking		
9	22-26 apr	Invited Lecture FundMore	Web	Web
10	20 apr.-3 may	Correctness (in week 8)		
Holidays	6-10 may			
11	13-17 may	Soft skills	All	Bachelor Thesis testing
12	20-24 may	Exam preparation		

What you learned!

- http://www.easterbrook.ca/steve/2010/11/the-difference-between-verification-and-validation/

  - SSVV
    - starting 2009-2010
  - BBST - Black-Box Software Testing series
    - https://bbst.courses/
    - Foundations (2016), Bug Advocacy (2016), Test design (2017), Domain testing (2019)

- https://ricardo-vargas.com/podcasts/cognitive-bias-the-dunning-kruger-effect-and-impostor-syndrome-part-3-of-3/

Grading

- F = 20% L +20% S + 50% E (+ 1p feedback)
  - L=Laboratory; S=Seminar; E=Written;
  - Bonus points! See the homepage of the course!

- Conditions to participate at the final exam
  - There is no restriction regarding the participation at the written examination regarding obtained marks at L, S.
  - Attendance lab (5 out of 6) -90%
  - Attendance sem (4 out of 6) – 75%
  - Council of the Faculty of Mathematics and Computer Science
    - 28 September 2016
    - http://www.cs.ubbcluj.ro/hotararea-1893-28-09-2016-a-consiliului-facultatii-privind-modificarea-regulamentului-de-functionare-al-fmi/
    - Motivation of absences
    - 11 October 2016
      - Decision regarding the motivation of the absences of the students
    - http://www.cs.ubbcluj.ro/hotarare-privind-motivarea-absentelor-studentilor-nivel-licenta/
    - Students will present the documents to motivate absences from the seminar/laboratory within one week from the date of absence.
    - If the motivation comes after more than a week, then apply to the dean's office.

- L/S work may not be redone in the retake session.
- Students from Previous Years to 2023-2024 - All the above rules apply to students from previous years (except attendances).
- Conditions to pass/complete the SSVV discipline:
  - F >= 5 final grade.

https://www.cs.ubbcluj.ro/files/curricula/2023/syllabus/IE_sem6_MLE5014_en_avescan_2023_7737.pdf
F = 25% L +25% S + 50% E (+ 1p bonus)

Grading – Gamifying Education

https://ieeexplore.ieee.org/document/8166715
https://ieeexplore.ieee.org/document/8658524

	Given points	Side Quests (Lab Assignments)	Social Quests (Sem Assignments)	Epic Quests (Final Exam)	XP intervals	Grade
Normal session	300 XP Feedback	600 XP (in-class 25 XP + take-home 75 XP for each lab)	600 XP (300XP SLR+Video presentation + 100 XP for each Portofolio activity)	Up to 1500 XP	[1400,1500]	5
					[1501,1800]	6
					[1801,2100]	7
Retake session	Points obtained in the didactic activity period (labs and seminar and bonus activity cannot be redone in the normal/retake session).			Up to 1500 XP	[2101,2400]	8
					[2401,2700]	9
					Over 2700	10

Final exam – you must come (be present) to final exam in order to compute the grade!

Bonus points = 300 XP (1p)
  Participating in Education related Research study
  Information to be provided after the first lecture

Bonus points = 600 XP
  Research paper (See available topics in Teams – after the first lecture)
  Maximum 3 teams.
  Topic by teacher + 2 members/team + deliverables
  Paper submitted to journal for review (before 24 May 2024)
  Remark: If you are interested in this activity, the deadline for enrollment (send email) is 8 March 2024 (week 2).

Grading: important aspects revisited

- **Exam structure:**
  - **See document 2024-SSVV-EXAM-Structure.pdf**
    - In Teams, General channel - > Files in directory Exams_Structure (under class materials)

  - **Attendances:**
    - Attendance lab (5 out of 6) -90%
    - Attendance sem (4 out of 6) – 75%

  - Grades during didactic activities
    - We will do our best to update all the grades by 24/27 May 2024 (first day of the examination session).

  - Exam participation
    1) All students must be present in one examination date and sign for attendance at the exam.
    2) Prepare an Identification Card (Student Grades Book, ID card, passport, driving license, etc)

  - Exam schedule and enrollment
    - Please come with your group due to limited spaces in the exam room.
    - Make sure you have registered for the exam in the EXCEL file on Teams (General channel - > Files in directory Exams_Enrollment).
    - Pay attention to the hours (the exams are scheduled at a specific HOUR for a group)!

- The link with the LAB attendances is available here: link
- The link with the SEMINAR attendances is available here: link
- Please check your attendances for seminar and laboratory (General channel, one of the first posts of the semester) and make sure you have the required number.
- If not, please send a motivation for your absence according to the rules stated at the begining of the semester.
  - See Slide 10 in the 2024_SSVV_Grading.pdf file
- Deadline: 24 of May 2024, h 20:00

- The link for the LAB grades is available here: link
- The link for the SEMINAR grades is available here: link
- Another link for Bonus points will be also provided.
- We will do our best to update all the grades by 24/27 May 2024 (first day of the examination session).