Compilers

Spring term

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Presentation

Lecture 0
Presentation

1. Contact

- Dr. Mick O'Donnell
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- Room: B-315
- Phone: x2273
- Office Hours: Usually in office 10-4, but email to make an appointment.

- Coordinator of Theory: Alfonso Ortiga
- Coordinator of Prácticas: Marina de la Cruz

- Course Web Page:
  - Spanish: http://www.ii.uam.es/esp/alumnos/c3_comp.php
  - English: http://www.eps.uam.es/esp/alumnos/eng/c3_comp.php
  - http://www.ii.uam.es/~epulido/procesadores

- My course page:

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2. Theory Classes

- You can choose to attend in English or Spanish

- Classes in English:
  - Mon: 9-10, Tue, Wed: 10-11

- Classes in Spanish:
  - Mon, 9-10, Tue, Wed: 10-11 (Alfonso Ortega)
  - Mon, Tue, Wed: 18-19 (Alfonso Ortega)
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3. Practicals

• Start on Monday 18th February.

• There are 7 groups.

• For first class, you can go to whichever group you like,

• But if one class is too full, you may need to select a different time.

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4. Assumed Knowledge

• TALF 1 (Teoría de Autómatas y Lenguajes Formales I)

• Most important:
  • Regular Expressions
  • Finite Automata
  • Context free grammars
### 5. Study programme

- Introduction
- Lexical Analysis
- Syntactic Analysis
- Symbol Tables
- Semantic Analysis
- Code Generation
- Code Optimisation
- Interpreters

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### 6. Readings


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- Fischer, LeBlanc (1991) *Crafting a compiler with C*.

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7. Evaluation

- **Repeating Students**
  
  - If you are repeating the subject, the marks from theory and practicals in past years were not stored separately.
  
  - Thus, even if you passed one part before, you have to repeat BOTH parts.

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7. Evaluation (ii): Final Mark

**FINAL MARK (FM):**

\[
75\% \times \text{Final Theory mark (FT)} \\
+ 25\% \times \text{Final Practical mark (FP)}
\]

You must get a minimum of 5 for each of FT and FP
Final Theory (FT):
Two possibilities:

1. Noncontinuous Evaluation (as in previous years):
   Highest of:
   (i) Mark in Final Exam
   (ii) 70% x Final Exam + 30% x Parcial

2. Continuous Evaluation (NEW):
   • 4 controls throughout the semester, testing the knowledge in the
     immediately preceding weeks.
   • If one or control are failed, they can be taken again in the final
     exam in June.

Continuous Evaluation:
• For the continuous evaluation option, the students will form into groups of 4
  students.
• These groups will be stable throughout all the course and they will be used
  for the distribution of the work that is asked of the students in this form of
  evaluation.
• It is important to that all members of the group are committed to staying in
  the group since if one or more members of the group leave during the year,
  this may harm the assessment of the group as a whole.
Final Theory (FT): Continuous Evaluation (continued)

• One of the controls will be for Bottom-Up Parsing
• This exam will consist of one question for each of the 4 techniques taught.
• Each member of the group will answer one of these questions, one in which they are not the designated ‘expert’.
• Each group will thus submit one answer to each of the 4 questions.
• Each group member will be assigned marks as follows:
  \[ 30\% \times PP + 30\% \times PE + 40\% \times TG \]
• Where:
  • PP is the mark the student achieved in the question they answered. Here we evaluate the global knowledge of the student in these techniques.
  • PE is the mark for the question for which the student is the expert. Here we assess how well the expert understood his theme and was able to impart that knowledge to the rest of the group.
  • TG is the total score for the group over the 4 questions.

7. Evaluation (iv): Other Considerations

• Marks for Theory and Practical are maintained only from the convocatoria starting February to that of September.

• A student is considered to have presented to a convocatoria if:
  a) They present to the final Theory exam
  b) They present to the final Practical exam
  c) They present a practical assignment

• A student is recorded as failed (“suspenso”) if:
  a) They present at any of the exams and fail, or
  b) They don’t present an exam but submit a practical,