BSc Honours (CS)
Induction Meeting

29th of January 2015
Hons.-Curriculum Personnel

Head of Department

Prof. A. Engelbrecht
To be approached directly only in severe cases of grievance. Normal requests must be directed to secretary or lecturers.

Secretary for Student Matters

Mrs. E. Willemse
Approach her for general administrative questions, e.g. registration requirements, rules and regulations.

Academic Hons.-Coordinator

Prof. S. Gruner
Approach him for general academic questions about the curriculum as a whole, e.g. your combination of modules, etc. Appointments must be pre-booked via e-Mail!

Individual Module Lecturers

...will all introduce themselves personally after this presentation. Approach them in all questions concerning your individual COS modules.
Any Students from the EE Department…?

• By a long-standing traditional agreement between this Department of CS, and the Department of EE, *which has just been re-confirmed*, Engineering students can get the following two “COS” modules accredited as “ERD” modules:
  – Software Engineering 1 (*COS 730*)
  – Software Engineering 2 (*COS 731*)
Important Website: Hons.-Portal

- **All relevant information** about the Hons.-Curriculum can be found here: [http://www.cs.up.ac.za/honours](http://www.cs.up.ac.za/honours)
  - Check this web site regularly for updates
  - Note that you *cannot* claim “ignorance” if you missed any announcement that was published on this portal or any of its sub-pages
  - An announcement e-mailing list, alias [hons2015@cs.up.ac.za](mailto:hons2015@cs.up.ac.za), will soon be established, too.
Modes of Study

- **FULL-Time**
  - The whole curriculum must be taken in one academic year (February to November 2015)

- **PART-Time**
  - The curriculum is stretched out over two academic years (into 2016), with only half the number of modules per year

  - **Note:** The COS700 Project *cannot* be stretched out over two years. Also part-time students must do their COS700 Project within their FIRST year
Full-Time or Part-Time?  
DECISION AID

- A semester module of 15 credits (such as, for example, COS720) has 150 notional hours of studying, (including learning at home).
- A full-time student must take 6 of such 15-credit modules in 1 academic year, which makes 900 notional hours, plus the 300 notional hours for COS700, \( \Rightarrow \) 1200 hours.
- The academic year goes from February to November: approximately 300 days:
  - This makes on average 4 hours of studying EVERY DAY (including Sundays!) for full-time students!
- If you can already foresee now that you will not have this much time available, then your choice of being a full-time student is rather risky and daring.
Compulsory Module: COS700

- **COS700** is the only *compulsory* module in the CS curriculum, whereas all other modules are elective.
  - *Deregistration from COS700 during the year is not allowed*
- **Also Part-Time** students must take this module in their FIRST year, not in their second year, of studying.
- Whereas all other modules are Semester modules, **COS700** is a Year module (worth 2 x 15 = 30 credits)
- **COS700 is structured as follows:**
  - Theory Part, with lectures and tests, *weight 25%*
  - Project Part, with 1 mini-dissertation, *weight 75%*

\[
\text{Total Weight} = 25\% + 75\% = 100\% \]
COS700 Project Topics

• will be available soon via the Website!
  ➜ Browse the website, and approach the lecturers (or research groups) who offer the topics that seem interesting to you.

PRE-CONDITIONS might possibly be attached!
E.g.: you typically have to be in the AI modules in order to do an AI project, etc.
COS700 Project Presentation

• All COS700 Project Reports MUST be handed in before the stipulated deadline
  – See COS700 website for further details!
  – Report Deadline missed: ➔ Project FAIL

• Moreover, successful projects MUST also be presented in a Seminar:
  – Prospective Date: See COS700 Website!
    • Presenters will be only those students who have passed the COS700 module altogether
6 Elective Modules

- In addition to the compulsory COS700, you choose a further 6 **Elective** modules in order to complete the Hons.-Curriculum
  - at least 5 modules **MUST** be COS modules offered by our CS Department
  - at most 1 module **MAY possibly** be chosen from any other Department in the University of Pretoria
    - e.g.: Philosophy, Electronics, Mathematics, etc.
    - *Such must also be at Honours level (with 7-code)*
Special Regulation for COMPUTER NETWORKS!

- Because our department cannot offer the Computer Networks course any more, we have the following “standing agreement” with the EE Department:
  - Our CS students are per-default allowed to take the EE Computer Networks Module, ERN780
  - From our CS perspective we regard it as a COS course, NOT as a “foreign” course
    - Thus you may take ERN780 plus another “foreign” course
  - You will get the same number of credit points for it as any COS course, NOT the (higher) amount of credit points which are usually granted for EE Modules
• of Departments which offer interesting CS-related Honours modules:
  – Dept. of *Bio-Informatics*
  – Dept. of *EE & Computer Engineering*
  – Dept. of *Geo-Informatics*
  – Dept. of *Informatics*
  – Dept. of *Information Science*
  – Dept of *Mathematics*
  – *etc...*
Some Examples...

- of interesting **modules** from other Departments, which can usefully *complement* the CS modules offered by our department:
  - ETK732  **Coding Theory**
  - ERN780  **Computer Networks**
  - WTW772  **Mathematical Methods & Models**
  - WTW763  **The Finite Element Method**
  - BOZ780  **Operations Research**
  - LCC710  **Introduction to Linguistics**
  - VKK754  **The Digital Culture**
  - etc...

Check possible Prerequisite Requirements!
Warning: Possible Exam “Clashes”

• IF you choose any “foreign” module, the exam date of which happens to “clash” with the date of one of your COS exams:
  • then your COS exam has priority and MUST be taken,
  • whereas it is your own problem to make an arrangement with the “foreign” module
    – Our CS department is NOT responsible for resolving your exam clashes which might occur with other departments!
Accreditation of Level-7 Modules already taken at other universities

• If you have already done similar Level-7 modules at other universities, then you may apply for the accreditation of those modules.
  – The Head of Department, upon inspection of the level of similarity (in comparison to our curriculum) may approve or reject such an application.

  • IF your accreditation application to the Head of Department has been successful, then your number of COS modules can be diminished accordingly.
“Packaging” of Modules

• To make the best for yourself out of all the modules offered, you must first introspect yourself to find out whether you are a “Breadth”-Student (generalist) or whether you are rather a “Depth”-Student (specialist)
  – Generalists should “scatter” their selection of topics as widely as possible.
  – Specialists should “cluster” their selection of topics as coherently as possible: *Appropriate for students studying towards the MSc*

• IF you have decided to take 1 external module:
  – **Generalists** should select a module that is rather *un*-similar to any COS module offered by us,
    • For example: The Digital Culture.
  – **Specialists** should select a module that *matches* your “cluster” as well as possible,
    • For example: *Operations Research* can match well with the Computational Intelligence modules offered by our CIRG experts.
“Packaging” of Modules (cont.)

- STEFAN GRUNER can provide you with consultation and advice about meaningful and sensible module combinations:
  - You still have 2 weeks time to change your mind and to re-align your bookings, before your choices are definitely fixed and finalized.
  - Better go for consultation to Stefan Gruner before you notice that you have paid your fees for a sub-optimal module combination.
Failure Policy

• There are NO RE-EXAMS, NO “special exams”.
• If you fail 1 module, you must compensate for it:
  – either by choosing the same module again next year,
  – or by choosing an additional, different module.
• If you fail 2 (or more) modules, then you will be EXPELLED by the end of that same year.
  – Keep in mind that COS700 counts like 2 modules!
    • i.e.: Fail COS700 = Expulsion from University

Also note that you cannot force yourself back into the university after having received the expulsion letter – the university is not obliged to take you back in.
Written Work Submission Deadlines

• Submission deadlines for written work (assignments, project reports, etc.) are always set for the entire class, and may not be individually negotiated for any reason whatsoever.
  – If an extension is really needed for very plausible reasons, it must be negotiated via the elected class representative for the entire class.
    • (The lecturer is, however, not obliged to grant extension)

• After a deadline has passed, un-submitted work will automatically be marked with mark 0,
  – which is not open for negotiation.
PLAGIARISM

• is strictly FORBIDDEN!
  – The department has special techniques and skills for plagiarism detection at its disposal.
  – If plagiarism is suspected, H.o.D. and Lecturer will have a discussion with the student and all tangible evidence will be immediately handed over to the University’s **disciplinary committee**. 😞😞😞😞😞
    • **WARNING:** Several students DID indeed go to the disciplinary committee last year! Thus, please do yourself a favour, and do **not** believe that you would be smarter than our staff’s plagiarism-detection techniques.
  – See the University of Pretoria’s website for all details of the plagiarism policy and regulations!
Offered CS Modules: Semester 1

- **COS700, Research Methodology** *(compulsory)*:
  - K. Malan

- **COS710, Artificial Intelligence 1**:
  - A. Engelbrecht and M. Helbig

- **COS720, Computer Security 1**:
  - H. Venter and M. Olivier

- **COS730, Software Engineering 1**:
  - S. Gruner

- **COS740, Formal Aspects of Computing 1**:
  - F. Solms and V. Pieterse

- **COS782, Generic Programming**:
  - L. Marshall

- **COS787, Geographical / Geo-Spatial Databases**:
  - S. Coetzee

- **COS788, Steganography / Information Hiding**:
  - T. Morkel

This Slide OVERRIDES the printed year-book!
Prospective Modules: Semester 2

- **COS711, Artificial Intelligence 2:**
  - Lecturer: t.b.a.
- **COS721, Computer Security 2:**
  - Lecturer: t.b.a.
- **COS731, Software Engineering 2:**
  - Lecturer: t.b.a.
- **COS741, Formal Aspects of Computing 2:**
  - Lecturer: t.b.a.
- **COS750, Educational Software:**
  - Lecturer: t.b.a.
- **COS781, Data Mining:**
  - Lecturer: t.b.a.
- **COS783, Digital Forensics:**
  - Lecturer: t.b.a.

Subject to the possibility of modifications! Please check for availability again around month June 2014

NEW!
- COS790 Mobile Computing
- COS791 Image Analysis
# Time Table: Semester 1

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<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
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<tbody>
<tr>
<td>16:30</td>
<td>COS 710 (AI)</td>
<td>COS 720 (Sec)</td>
<td>COS 700 (*)</td>
<td>COS 782 (Gen)</td>
<td>COS 740 (FA)</td>
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<tr>
<td>18:30</td>
<td>COS 787 (DB)</td>
<td>COS 788 (IH)</td>
<td>study at home!</td>
<td>COS 730 (SE)</td>
<td>study at home!</td>
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*) Note: **only 7 Sessions**, (because only 10 Credits for Theory).

**All Sessions are in Lecture Hall: IT-4-3**

For Semester 2: ➔ to be announced during the academic year
• Please check the university’s “Red Book” for the official examination period to Semester 1
• Your exams will also fall into those weeks.
• The exact dates will be announced during the Semester.
  – You may expect the announcement by the middle of month May: Please watch the CS Website!