

An Introduction to the Topics Course

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Introduction to the Topics in Computing Course

The topics element of the first year is to give you experience of **Problem Based Learning**.

- Problems are research oriented
- Students work in small groups
- Staff are facilitators rather than teachers.

Problem based learning is intended to help you develop **transferable skills** - those that you can apply to any activity.

What you have to do

- Background study on a topic of research interest.
 - Transferable Skill: Self directed learning
- Write a web article on the subject aimed at an intelligent, non-specialist, audience.
 - Transferable Skills: Technical writing, web design.
- Present your results in a short talk at the Topics-Fest.
 - Transferable Skill: Communication

The Topics:

- Affective Computing
- Block Ciphers
- The Singularity
- Security Science
- Energy Efficient Computing
- Agents
- Computing in Surgery
- Data Integration

What not to do

1. Find a popular article on the subject
 - (eg from Wikipedia)
2. Cut and paste it into a web page whose layout you like.
 - **If you do this you will receive a zero mark!**

Getting Started

1. Initial reading:

- Popular web articles (wikipedia etc.)
- Recommended reading (from your supervisor)

2. Deeper study:

- Frequently cited articles (Google Scholar)
- Articles referred to in the initial reading

3. Group meetings:

- Aim to have a group discussion each week.
- Discuss individual reading and decide the plan for the week

As you progress

1. Always make summary notes on the articles you read.
2. Try to organise the material around research issues rather than individual articles.
3. Draft your material directly in html

Finishing off

Once the content is complete and well organised you can beautify your web site:

1. Find attractive appropriate pictures (remember to cite the source)
2. Draw some illustrative schematic diagrams
3. Get a good distribution of material in the web pages.

Prepare slides for the talk using the same images and diagrams on the web site.

Presentations

Every group gives a short presentation on **Topics Fest Day** at the end of term.

All presentation material must be displayed through a browser. This is to avoid excessive turn-round delays.

The easiest way to do this is to prepare the slides using open-office or powerpoint and save them as a pdf file.

The restriction means that animations must be constructed explicitly, ie you need a separate slide for each stage of an animation.

Support

Each project is supported by a Lecturer and a web programming tutor.

The lecturer will provide an initial reading list and study directions, and will give limited/advice support during the term.

The tutor will provide technical support on web programming.

Formation of Groups

Groups will mostly be of size 4, but there will be some groups of 3

If you want to form a group with particular friends you should inform me using an email message with the title **Topics Group** by midnight on the 16th January.

You can ask for groups of 2, 3 or 4 in size. Groups will be made up to size 3 or 4 as required.

The topics will be allocated at random. There will four groups doing each topic.

Topics Fest Day

The Topics Fest day will be organised in four parallel sessions of presentations with one talk on each topic. You should attend the whole day.

- 09.30-12.30 4 talks + coffee break (4 parallel sessions)
- 12.30-14.00 Lunch break (lunch will be provided)
- 14.00-17.00 4 talks + tea break (4 parallel sessions)
- 17.30-18.00 Announcement of the prize winners
(There will be one prize per topic)

Timetable

13/14 Jan	Introductory talks
16 Jan	Deadline for group requests
19 Jan	Groups will be published
20/21 Jan	Initial meeting with tutors
10/11 Feb	Optional progress meeting
3/4 Mar	Optional progress meeting
17 Mar	Hand in day for the web page
24 Mar	Topics Fest (All day)