Exam Skills

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http://student-learning.tcd.ie
Knowledge

Attitude

Exam Performance
4 Stages in Preparation

1. Planning
2. Revising
3. Practicing
4. Performing

Sources:

Exam Stress Guide, SU & Student Learning
How to Do Badly in Examinations, Dr. Frank Bannister
Complete the exam self-assessment

One exam skill I would like to improve is……
1. Planning
## Energy Timetable

Complete the timetable using 3 different patterns or colours.

Use Red for example to indicate lecture times, meetings and so on. Use Yellow for time you plan to study and Green for your social and relaxing time.

The idea is to plan your week based on how you are likely to feel. While you might feel that after 4 hours of lectures you should head to the library, realistically you probably need to take a break.

Working efficiently means knowing when to take breaks and requires that you plan time for fun and relaxation.

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lunch</td>
<td></td>
<td></td>
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</tbody>
</table>

Red = Busy  
Yellow = Study  
Green = Free
Find your space

Where do you work best?
Place suitable to task
Break your day into different tasks & spaces
Use all available time
Reading List:

Judd, C., Smith, E. and Kidder, L. 1991
300.Jud (1 copy)

Moser, C. A. and Kalton, G. 1971
300.723 Mos (10 copies)

Oppenheim, A. N. 1966, 1973
Questionnaire Design and Attitude Measurement. London.
011.422 Opp (3 copies)

Hoinville, G. Jowell, R. and associates, 1978
Survey Research Practice. London.
300.723 Hoi (1 copy)

Rose, G. 1982
301.072 Ros (4 copies)

Kurtz, N. R. 1983
Introduction to Social Statistics. London etc.
300.72 Kur (4 copies)

Blalock, H. M. 1960
Social Statistics. London.
301.072 Bla (2 copies)

ESRI Reports: Read at least one of these research reports based on a social survey.
Being Selective

Ask lectures/tutors what is most relevant
Be alert for hints and clues
Ask fellow students
Ask students in years ahead
Share reading
Preview or skim before in-depth reading
2. Revision
Active Learning

Hands-on Learning
Set up a Study Group
Active Note-taking
Active studying means

1. Working with the material to try to build understanding
2. Find a way to process the information in a deep and meaningful way
How?

Have a framework
– Think about the purpose of the study task
– Consider the best way to approach it
– Reflect and review

PSR
– Purpose – why?
– Strategy – how?
– Review – check!
Taking Notes
Good Study is like Interrogation
Revision & Notes

Source → Your Summary Notes → Review Notes → Exams
Revision for understanding

Process the information on a deep level by making it meaningful:
• impose organisation via categories, diagrams
• make associations to information already known
• try to establish relationships among material
• use imagery
• try to find general rules, patterns, or principles
• immersion
Revision for recall

Use strategies that emphasise rote memorisation of facts:

• Over-learning
  – read same chapter several times, index cards, etc.
  – plan reviews

• Use pass papers
  – choose a question and plan answers in outline form
  – write out complete answers and time yourself

• Work with other students
Types of Notes

1. Prose or summary
2. Outline or skeleton
3. Mind or concept maps
4. Cornell or 2 Column

Your own personal style
Be careful with tan⁻¹

Because tan⁻¹ returns values between $-\frac{\pi}{2}$ and $\frac{\pi}{2}$, the formula $\arctan(x+iy) = \tan^{-1}(y/x)$ only works if $x > 0$. This can cause problems in e.g. Qs 2vi and 10 of Complex Methods Sheet 1.

2vi Where is $u = \tan^{-1}\left(\frac{2xy}{x^2-y^2}\right)$ harmonic and find an analytic function whose real part is $u$.

First we determine where it is definitely not harmonic. Consider the lines $y = \pm x$.

As $(x,y)$ approaches the line $y = x$ from below $(x,y > 0)$ (see picture), we have

$$\frac{2xy}{x^2-y^2} \to \infty$$

so $u \to +\frac{\pi}{2}$.

If we approach from above, $u \to -\frac{\pi}{2}$, so $u$ is discontinuous. Similarly in the other quadrants.

So we assume $x^2 \neq y^2$. If $x = r \cos \Theta$, $y = r \sin \Theta$ then $u = \tan^{-1}(\tan 2\Theta)$, which equals $2\Theta$ provided $-\frac{\pi}{4} < \Theta < \frac{\pi}{4}$. In this case, we can
Outline

Natural Law

Key Words: Aquinas, valid, deontological, intrinsically, right or wrong, divine law, deduction, reason, purpose, precepts: ① preserve life ② reproduce ③ education children ④ living in society ⑤ worship God; intention, unambiguously, personal identity, natural

① Aristotle: “The natural is that which everywhere is equally valid.” Aquinas developed → absol. deont. acts are intrinsically right or wrong.
② Divine destiny → God’s law, not human law → eternal law → divine law → natural law → human law. 10 Commandments → sin → science Law Courts → Justice
③ “Good is to be done and evil avoided.” Law → Scripture → but can also be deduced from reason. → open available to everyone. Ignore reason → ignoring God
④ Behave? According to laws + divine purpose for humanity: 5 PRECEPTS.
⑤ Good actions: those that are in accordance with primary precepts. Good acts called SECONDARY PRECEPTS. Good acts glorify God’s purpose.
⑥ Temptation → apparent “goods” tempt away from natural law. Intention and act important.
Mind Maps
Concept Maps

Photosynthesis

- CO₂ taken in via stomata
- H₂O
  - Split to give H atoms + oxygen
  - From soil by osmosis
- Chlorophyll
  - Absorbs red & blue light
  - Traps energy in chloroplasts
- Converts to starch
- Sugars
  - From CO₂ + H atoms

From stomata to air.
The Cornell Note-taking System

<table>
<thead>
<tr>
<th>Cue Column</th>
<th>Notetaking Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write Keywords here</td>
<td>Write brief notes here as you are reading a book OR during a lecture</td>
</tr>
</tbody>
</table>

Summary

Write a short summary of the page here
<table>
<thead>
<tr>
<th>Keywords</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Types of Matter</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Solids</strong></td>
<td>I. Solids</td>
</tr>
<tr>
<td></td>
<td>A. Have a definite shape</td>
</tr>
<tr>
<td></td>
<td>B. Have a definite volume</td>
</tr>
<tr>
<td><strong>Liquids</strong></td>
<td>II. Liquids</td>
</tr>
<tr>
<td></td>
<td>A. Do not have a definite shape</td>
</tr>
<tr>
<td></td>
<td>B. Have a definite volume</td>
</tr>
<tr>
<td><strong>Gases</strong></td>
<td>III. Gases</td>
</tr>
<tr>
<td></td>
<td>A. Do not have a definite shape</td>
</tr>
<tr>
<td></td>
<td>B. Do not have a definite volume</td>
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</table>

**Summary:**

(Insert summary of lecture after class.)
Virtue Ethics

Key Words: Aristotle, eudaimonia, virtues: courage, temperance, liberality, munificence, (crimson tortoises love money) high-mindedness, right ambition, good temper (high mountains run after green trees), sinistro, sincerity, witlessness, modesty, just resentment (cooking seagulls with many juggling rabbits), Golden Mean, excessive, deficient, holistic.

2. Practice virtuous behaviour in order to reach eudaimonia (ultimate happiness) → route for improvement.
3. Practice
You want to be looking at questions
Study Aids

- index cards
- mind-maps
- audio (podcasts, your voice etc.)
- Anything else?
Would you sit your driving test without ever driving a car?
Practice makes perfect…
Practice Everything!

Timings
Answer Technique
Same Clothes
Same Pens ..... 

Goal: as little new information as possible on exam day
Steps to Practice

1. Get sample exam questions
2. Practice your starting procedures
3. Practice analysing questions (5 mins)
4. Practice generating ideas (5 mins)
5. Practice past exam questions (timed and un timed)
6. Mark your own answers as critically as possibly
Interview (5 mins)

1. How are you planning your revision?
2. How do you deal with distractions?
3. How do you study (reading/notes)?
4. Performance
Time Wasting

1. Writing out the question
2. Writing out multiple choice questions
3. Needless Definitions
Unbalanced Answers

Maximum gains for time are in the early stages of your answer

Plan your time in advance

Rehearse producing quality work in time available
Equal time for equal marks

Leave time at beginning (to plan) and end (to check) paper.

Question 1
40 minutes

Question 2
40 minutes

Question 3
40 minutes

Question 4
40 minutes
Overcomplication

Decision trees are used in data mining as a way of progressively breaking down data into groups. As this happens, the number in each classification may be noted. A customer database may break down as 70% male, 30% female. The males may be divided into those that spend over €1,000 a year with us (90%) and those that do not (10%). The same subdivision for female shows that only 2% of females spend over €1,000 with us. The high spending males break-down into 77% under 30 and 23% over 30 years of age. When females are divided into high and low spending, it might be found that 80% of high spenders are repeat customers and 20% are not. Low spending females, on the other hand, might be 90% non repeating customers. A parallel analysis of high spending male customers might show that...
What is meant by a work breakdown structure? Illustrate your answer with an example.  (6 marks)

Work breakdown structures are important. They are used in all projects including civil, mechanical and electrical engineering projects as well as software projects. Work breakdown structures decompose the work to be done in a project into successively smaller components. The result is a hierarchical structure. This is usually done by the project manager, but may be done by sub managers or engineers. Being able to prepare a work breakdown is an important project management skill and needs experience. Specialist engineers may be required to complete a WBS where specialised work is involved. The work breakdown structure enables the project manager to estimate more accurately and later on helps in controlling the project. A typical breakdown may start with a project being divided into phases, stages, activities and tasks. The lowest level in the breakdown is usually a task though occasionally task may be further subdivided into sub-task or even steps. The number of tasks in a project can be very large. The absence of a work breakdown structure can cause problems in a project as it may not be possible to estimate accurately or assign work effectively. If the work breakdown structure is not complete in some way, then the project is almost certain to overrun. One project manager was quoted as saying that a good work breakdown structure is of ‘monumental importance’. A proper work breakdown structure is normally coded with a simple numeric coding system. The work breakdown structure may also be reflected in a Gantt chart. A Gantt chart is a sort of horizontal bar chart used for showing the timing and duration of the various stages of a project.
Unnecessary content

- Taking a long time to get to the point
- Irrelevance
- Repetition

- Present what you know
- Add Value
- Get to the point
Think about your examiner
Have you ever been in a situation where you must go back and fix your mistakes? How about when you cannot sit still and must move some part of your body? Well, that's what it feels like to have OCD and ADHD. Sometimes it gets to the point where no matter how hard you concentrate, you still reactively fix the letters or darker the period. One time in my English class in high school, I looked down and saw that my period looked like this: ⚪️. I didn't even realize that I had been sitting there and had been darkening the period over and over again.
Writing

• Not the same level as assessment
• Keep your writing simple
• Short sentences
• Few sub-clauses
• Practice writing
• Avoid unsupported value judgements
  - “World War II was really important.”

http://www.phrasebank.manchester.ac.uk/
Answer the Question

• Use subject-specific headings
• Stick to your plan
• Know how much you can write in the time
• Say why the issues raised by the question are important
• Avoid anything that increases anxiety
• Focus on staying calm
• Arrive Early, Avoid People!

Things to do on the day
In the hall

- Focus on doing well (positive)
- Fill out your answer books
- If you panic, use relaxation techniques
- Be prepared – warm clothes, water
- Know where everything is
Exam Preparation

1. **Start with the Exam** – What do I need to know to do well
2. **Plan your Revision**: What questions am I going to answer
3. **Make Notes**: Revision Aids
4. **Practice Recall**: Check what you know
5. **Practise Questions**: Exam Simulation
Student Learning Development offers advice, resources, individual consultations, workshops and much more to help you improve your academic performance and reach your potential.

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phone: 01-896-1407  
email: student.learning.tcd.ie  
web: http://student-learning.tcd.ie
Exam Revision Workshop

The Crammer

Tips

- Eat well, get regular exercise and sleep well
- Plan and prioritise your study time to avoid all night sessions
- Start early with subjects you are least familiar
More information


Student Learning Development

Visit our website at:
http://student-learning.tcd.ie
Thank you for your time

Any Questions?