

tsfx year 12 vce

winter school - unit 4 head start lectures

2010



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- ★ **Get ahead** in a highly effective and time efficient manner!
- ★ Develop a strong understanding of Unit 4 materials in advance of school.
- ★ Create a distinct advantage over your subject peers.
- ★ Cut down on study & homework and greatly improve VCE scores!
- ★ Receive thorough A+ notes (not basic summaries) - **FREE!**
- ★ Expert instruction and advice from the top teachers across the state.

***GET AHEAD**
and decrease
stress levels
in Unit 4!*

free lectures!

exclusive unit 4 blaster lectures

Sunday 25 July 2010

This program offers students a unique opportunity to consolidate Unit 3 materials and learn how concepts will be applied & extended on in the final examinations. Students will also obtain advance advice and information on maximising Unit 4 scores. Valued at over \$300, this program is **FREE OF CHARGE** to students studying Unit 3 & 4 subjects this year. See Page 2 for details.

minimise study time

maximise scores

Dates: Tuesday 6 - Friday 9 July & Saturday 17 - Sunday 18 July 2010

Venue: The University of Melbourne

TSFX - Voted Number 1 for Excellence and Quality in VCE Programs

THE SCHOOL FOR EXCELLENCE

The School For Excellence is widely recognised for providing the highest quality programs available in Victoria. Our specialised programs are based on a unique system which ensures students receive the best opportunities to optimise their VCE scores. We believe that given the right opportunities, guidance and support, **EVERY** student has the potential to excel in their studies.

During the course of our lectures, students receive a complete and thorough instruction, and **NOT** just a simple overview of the basic principles of each subject. You will be taught by current and experienced VCE teachers - many of whom are authors of VCE textbooks, writers and markers of VCAA examinations, Senior Assessors and State Reviewers, as well as members of verification and review boards for VCE subjects. Teachers are carefully selected on the merits of their academic and professional achievements, and with special consideration to their communication skills. Our teachers are renowned for explaining concepts in a manner that students find very easy to understand! Our programs are fun, interactive and conducted in a relaxed and friendly atmosphere. Students are encouraged to participate in question time and discussion sessions and clarify individual concerns. **Don't miss out!**

10 POWERFUL REASONS WHY YOU SHOULD ATTEND

- **YOU WILL** gain a vital head start into Unit 4 by working through course materials in advance of school. Having a solid knowledge of course content in advance of covering materials at school will enable you to **absorb more** information in the classroom, resulting in a **stronger understanding** of examinable materials. You will find that your ability to answer/address questions improves, improving confidence levels, decreasing the time spent on homework and exam preparation whilst **markedly improving** VCE scores.
- **YOU WILL** receive unparalleled advice and instruction from Victoria's most reputed seminar/lecture provider. Teachers and past students consistently rate TSFX Number One for Excellence and Quality in VCE programs.
- **YOU WILL** cover the required knowledge to an A+ standard in a simple step-by-step manner.
- **YOU WILL significantly cut down on study time.** Our approach to teaching enables students to cover at least 5 times as much theory and absorb 5 times as much information than if you were to work through materials on your own! This means that your investment in a **6 hour lecture** would otherwise require approximately **30 hours** of your personal study time!
- **YOU WILL** learn powerful study skills and examination techniques that will improve your performance in all your subjects.
- **YOU WILL** eliminate the need to waste valuable study time preparing notes. Each student will receive an excellent set of **comprehensive notes** that cover the required knowledge to an **A+ standard**.
- **YOU WILL** develop skills that will help you manage your time more effectively and complete tests and examination papers within the specified time.
- **YOU WILL** improve knowledge and application skills, which will translate into decreased study commitments and higher VCE scores.
- **YOU WILL** become **highly motivated** and develop **greater confidence** in ALL your studies.
- **YOU WILL** gain a **distinct advantage** over your subject peers!

Students who have attended our Winter School lectures in past years agree that these programs resulted in a more concrete understanding of course materials, decreased workloads and stress levels at school, increased confidence and motivation, and a greatly improved performance in tests, assignments and examinations. (See Page 4 for past student feedback).

UNIT 4 BLASTER LECTURES

free lectures!

FREE Lectures to help students prepare for the Final VCAA Exams!

Venue: The University of Melbourne
Date: Sunday 25 July 2010
Time: 9:30am - 12:30pm (Part 1) & 1:30pm - 5:00pm (Part 2)

Despite the importance of Unit 3, there is no dispute that performance across Unit 4 has the biggest impact on VCE Scores.

The manner in which students approach their studies at this crucial point and how well they perform across the next few months will therefore play a major role in determining which tertiary course they are accepted into, and hence their future career paths.

The **Unit 4 Blaster Lectures** are **specialised programs** that will assist students in maximising their performance in the Unit 4 school based assessments as well as the final VCAA examinations. Students will derive **immeasurable benefits** from over 6 hours of expert advice and instruction, providing them with a distinct advantage over their subject peers.

These exclusive lectures will be delivered by teachers with extensive experience in teaching Units 3/4, and who have been heavily involved in curriculum development and/or examination writing/marking.

Part 1: English/ESL Lecture & Unit 4 Exam Advice Session

The first part of the **Unit 4 Blaster** program consists of an intensive lecture on the English Study Design, in which students will be taught how to advance their writing skills for the end of year VCE examination.

Students will be shown models of writing that demonstrate how to make discrete links between ideas, the world of the texts and the real world in the Context section of the lecture. Students will also learn everything needed for the inclusion of metalanguage, structure and easy to use methods for the unpacking of Text questions. This lecture will be highly interactive, fun and most importantly, will challenge students to consider their current approach to writing and thinking about texts!

The English lecture will be followed by a **Unit 4 Examination Advice** session which will deliver critical advice on how to approach studying and examination preparation across Unit 4. Most importantly, students will be provided with an insight into the costly mistakes made by students when preparing for examinations, and how they should orientate their efforts so that they can maximise end of year VCAA examination marks. This session will also provide students with the keys to outperforming their peers, enabling them to maximise their state wide ranking as well as their ENTER scores.

Part 2: Mathematics Exam Applications

During the course of these lectures, students will learn how examiners award marks as well as how to set out answers so as to maximise examination scores. They will consolidate critical knowledge from the Unit 3 course by working through potential examination questions, whilst simultaneously gaining an appreciation of how taught concepts will be **extended upon** in the final VCAA examinations.

Students will also learn the skills required to address the multiple choice, short answer and the **challenging analysis style** questions and obtain **proven advice** on how they should orientate their efforts so as to secure every possible mark in the examinations.

This powerful set of lectures is available in **Mathematical Methods (CAS) & Specialist Mathematics**.

Cost: Valued at over \$300, these lectures are **FREE OF CHARGE** to students. We do, however, require that students participating in this program make a paper note donation (minimum of \$10) to the **Fred Hollows Foundation** representatives that will be in attendance on the day. All profits will be donated to this foundation.

Timetable

Tue 6 July 2010	Wed 7 July 2010	Thur 8 July 2010	Fri 9 July 2010	Sat 17 July 2010	Sun 18 July 2010	Sun 25 July 2010
9:30am - 12:30pm Chemistry (Part 1)	9:30am - 12:30pm Maths Methods CAS (Part 1)	9:30am - 12:30pm Biology (Part 1) Physics (Part 1)	9:30am - 12:30pm Specialist Maths (Part 1)	9:30am - 12:30pm Biology (Part 1) REPEAT Chemistry (Part 1) REPEAT Physics (Part 1) REPEAT	9:30am - 12:30pm Maths Methods CAS (Part 1) REPEAT Specialist Maths (Part 1) REPEAT	9:30am - 12:30pm Unit 4 Blaster Lecture (Part 1)
1:30pm - 4:30pm Chemistry (Part 2)	1:30pm - 4:30pm Maths Methods CAS (Part 2)	1:30pm - 4:30pm Biology (Part 2) Physics (Part 2)	1:30pm - 4:30pm Specialist Maths (Part 2)	1:30pm - 4:30pm Biology (Part 2) REPEAT Chemistry (Part 2) REPEAT Physics (Part 2) REPEAT	1:30pm - 4:30pm Maths Methods CAS (Part 2) REPEAT Specialist Maths (Part 2) REPEAT	1:30pm - 5:00pm Unit 4 Blaster Lecture (Part 2)

“ Brilliant, inspiring and very informative. ”

-Student, Rowville Secondary College.

“ Excellent lecturer. Engaging. Notes are amazing, well worth it! ”

-Student, Brighton Secondary College.

BIOLOGY (TOTAL: 2 PARTS - 6 HRS)

The Biology sessions will provide students with a complete and detailed coverage of the Unit 4 course, including **Area of Study 1: Heredity** and **Area of Study 2: Change Over Time**. Key knowledge areas that will be examined within the two Areas of Study include: molecular genetics, genetic tools and techniques, transmission of heritable characteristics, cell reproduction, variation, patterns of inheritance in sexually reproducing organisms, change in populations, natural selection, geological time, evidence of evolution, patterns of evolution, evolutionary theories, evolutionary relationships, hominid evolution, interrelationships between biological, cultural and technological evolution and human intervention in evolutionary processes. Teachers: **Mr Ian MacDonnell**, B. Sc.,(Hons), Dip. Ed. (Senior VCE Biology Teacher - University High School). **Ms Veronica Parsons**, B. Ed. Sci., (Senior VCE Biology Teacher - St. Leonard's College).

CHEMISTRY (TOTAL: 2 PARTS - 6 HRS)

These lectures offer students a comprehensive introduction to the Unit 4 course, including: **Industrial Chemistry**: Energy profiles, rates and yields of chemical reactions, equilibrium, calculations involving equilibrium constants, the effects of temperature, concentration, pressure and catalysts on the position of equilibrium of a reaction, Le Chatelier's Principle, the ionisation product of water, acidity constants and pH. **Supplying and Using Energy**: Energy conservation and conversions, thermochemistry, calorimetry, construction/operation and applications of galvanic and electrolytic cells, using the electrochemical series to predict reactions, and Faraday's laws to solve problems involving quantitative calculations for electrolysis reactions. Teachers: **Ms Irena Jaskula**, Dip. App. Biol., B. Sc. (Hons), Dip. Ed., M. Sc. (Senior VCE Teacher - TSFX). **Mr Byron Jones**, Dip. Ed., M. Sc. (Senior VCE Teacher - TSFX).

PHYSICS (TOTAL: 2 PARTS - 6 HRS)

The Physics lectures will cover the core sections of the Unit 4 program, which includes **Interactions of Light and Matter**, as well as **Electric Power**. Whilst the Detailed Studies are not specifically being covered in these lectures, many of the related underlying principles will be introduced and developed. Other TSFX programs later in the year will specifically address the content of the Detailed Studies.

In the section on **Light and Matter**, we take a historical journey through the development of our scientific understanding. From ancient philosophers' concepts of particles streaming from a light source, to the development of a wave theory for light in the nineteenth century, to a modern photon model, scientific thinking about light has changed considerably. We look at strategic scientific developments that have provided pieces of the jigsaw puzzle of understanding, such as Young's double slit experiment, as well as Planck's and de Broglie's work. Specific points include wave interference and diffraction, photoelectric effect, matter waves, atomic absorption and emission spectra, energy levels and the photon model for light.

The topic of **Electric Power** covers the generation, transmission and use of electricity. It includes the electrical and magnetic field effects in contexts of electric motors, generators, alternators and transformers. Students will learn to perform calculations involving magnetic forces on current carrying conductors, induced voltage using Faraday's law, transformers and power loss in transmission and distribution systems. Some traditionally difficult aspects, such as the direction of induced current in rotating conductors, will be clarified, as well as the role of commutators. DC motors and generators will also be compared. Teachers: **Mr Geoff Davies**, B.Sc.(Ed.) (Senior VCE Teacher - Melbourne Grammar School). **Dr. Greg Wilmoth**, B. Sc (Hons), Ph.D., Dip. Ed., Grad. Dip. Computing (Head of Science and Senior VCE Teacher - Haileybury College).

MATHEMATICAL METHODS CAS (TOTAL: 2 PARTS - 6 HRS)

The Mathematical Methods CAS lectures will provide students with a comprehensive coverage of the Unit 4 course, including: **Integral Calculus**: Integration of algebraic, trigonometric and exponential expressions, integration by recognition, definite integrals, areas under and between curves. **Probability**: Discrete and random variables, Markov sequences, finding probabilities, measures of central tendency (mean, mode and median), standard deviation, variance and conditional probabilities of discrete, binomial, continuous and normal distributions. Students will also be taught unique techniques in identifying probability distributions as well as how to dissect and answer the challenging worded questions which form the greatest component of this topic. Teacher: **Ms Irena Jaskula**, Dip.App. Biol., B. Sc. (Hons), Dip. Ed., M. Sc. (Author of VCE Texts and Senior VCE Teacher - TSFX).

SPECIALIST MATHEMATICS (TOTAL: 2 PARTS - 6 HRS)

The Specialist Mathematics lectures will provide students with a comprehensive and detailed coverage of the Unit 4 course, including: **Differential Equations**: Setting up and solving differential equations in a variety of contexts drawn from the physical, biological and social sciences, direction (slope) field of a differential equation, verification of solutions to differential equations, numerical solutions by Euler's method (first-order approximation). **Kinematics**: The application of differentiation, antidifferentiation and solution of differential equations to rectilinear motion of a single particle, velocity-time graphs and their use. **Vector Calculus**: Position vectors, differentiation and anti-differentiation of a vector function, applications of vector calculus to curvilinear motion, motion along a path in two or three dimensions. **Mechanics**: Statics as well as an introduction to Newtonian mechanics, for both constant and variable acceleration. Teachers: **Mr Michael Fitzgerald**, B.Ed., Post Grad Maths Ed. (Senior VCE Teacher - Mazenod College). **Mr Chris Ireson**, B.Ed. (Senior VCE Teacher - Melbourne High School).

FORTHCOMING PROGRAMS *Reach Your Full Potential!*

In the first week of August 2010, our **weekly tuition classes** known as the “**Intense Workshop Program**” commence, offering students the **ultimate learning experience** and the most **in-depth preparation** for the examinations. These **weekly** classes offer between 24 and 40 hours of **intense** tuition in each subject, and are specifically designed to decrease stress levels and work-loads, and significantly improve VCE scores. **To obtain additional information and/or Application Forms, please visit www.tsfx.com.au or call (03) 9663 3311.**



“ TSFX is fantastic, I don't know how I would have made it through Year 12 without them. ”

-Student, Firkbank Grammar School.

“ The School For Excellence is exactly what its name suggests! Through the easy to understand classes and with the help of the notes, students can explore their full academic potential in specific areas of study. ”

-Student, MacRobertson Girls' High School.

“ I would highly recommend TSFX for anyone wanting to obtain the cutting edge to get ahead for their final school years. ”

-Student, Melbourne High School.

