## Year Eight Elective Selection Book 2024



Stage 4

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## PAtTERN OF STUDY

Lithgow High School offers a wide range of options to supplement the core courses that each student must study to meet the RoSA (Record of School Achievement) requirements.

Core courses include:

- English
- Mathematics
- Science
- History
- Geography
- Music
- PD/Health/PE
- Technology Mandatory
- Visual Arts

We offer all students in Year 8 the opportunity to study an elective in semester one and a second elective in semester two. These are to help students make informed decisions and to sample a variety of courses in the lead up to Stage 5.

We offer all students in Technology, Visual Arts and Music experiences beyond the minimum required by the syllabus. These courses therefore have costs which cover the additional materials that your student will use in these classes.

Options are provided for two reasons:

1. To ensure that conditions for the RoSA are met. This means that every student must study a Visual Arts and a Music option from those listed. Students with a special interest may study a second option in these areas.
2. To prepare for informed choices of electives in Year 9 and 10, students are provided with the opportunity to sample a variety of courses in Year 8.

## Note:

Some electives have subject costs to pay for materials used in the classes. Where parents agree to their son/daughter taking that course, this is regarded as an agreement to pay the necessary subject cost. Subject costs are determined by the faculties and are fully endorsed by the School Council and P \& C Association.

Excursion costs are not included in the subject costs.

## Course Costs

A number of courses have a cost shown at the beginning of the course description. This cost is to allow the school to bulk purchase, in advance, materials needed so that the student can gain the full benefit of practical work.

It is expected that course costs will be paid at the start of the course, i.e. February for Semester 1 and July for Semester 2.

## MANDATORY COURSES

You must take the following courses:

- English
- Geography
- History
- Mathematics
- Music
- Personal Development, Health and Physical Education
- Science
- Technology (Mandatory) - $\mathbf{\$ 4 0 . 0 0}$ fee involved
- Visual Arts - \$30.00 fee involved


## ELECTIVE COURSES

You may choose from the following elective courses:

- Agricultural Technology \$25
- Awesome Mathematics NIL
- Design and Technology NIL
- Dance NIL
- Drama NIL
- Extension Mathematics NIL
- Industrial Technology \$25
- Outdoor Recreation NIL
- Photography \$25
- Sport Science NIL
- STEM (Science, Technology, Engineering \& Mathematics) NIL


## ELECTIVE COURSES

## AGRICULTURAL TECHNOLOGY

## Materials Required: 64 Page A4 exercise book and writing equipment Sturdy covered shoes

Course Cost: \$25

## Course Information:

Agriculture is the Science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food and fibre.

This course is studied within the context of a minimum of two agricultural enterprises for one semester. The Agricultural enterprises studied will include both plant and animal systems. Practical experiences will occupy a minimum of 50 percent of allocated course time, utilising the school's Agriculture Farm to undertake a range of plant, animal, and land management practices safely and in cooperation with others.

## Students will learn about:

- Agricultural technologies
- Sustainability of food and fibre production
- The application of Science in Agriculture
- Economic, environmental, and social considerations in Agriculture


## AWESOME MATHEMATICS

## Materials Required: Workbook and writing equipment

## Course Cost: Nil

## Course Information:

This alternative Mathematics course looks at Mathematical applications, problems solving and the use of Mathematics in different situations.
Topics Include:

| Fractals | Number Patterns | Trade Maths |
| :--- | :--- | :--- |
| Fibonacci | Maths in Nature | Pascal's Triangle |

This course will allow students, through project-based learning, a chance to improve their knowledge of Mathematics by use of investigation, problem solving with a hands-on approach to learning, incorporating technology.

## DANCE

## Materials Required: 128 page exercise book

## Course Cost: Nil

## Course Information

This course will focus on the performance, composition and appreciation aspects of Dance. Three different dance styles will be covered and students will learn to develop confidence in performance. They will also learn to express themselves through movement. This course is designed to be a step towards Dance in Years 9 and 10.

## At the end of this course students are expected to be able to:

- Perform as a member of a group
- Present a performance to an audience
- Discuss their own work and the work of others
- Compose their own dance sequence


## DESIGN AND TECHNOLOGY

Materials required: A3 Folio, geometry set, student BYOD
Course Cost: Nil

Additional Costs: Costs of completing projects in this course will vary for individual students depending upon their chosen Focus Area of Design. Guidance and information will be provided to ensure costs are minimised.

## Course description

The study of Design and Technology develops a student's ability for innovative and creative thought through the planning and production of design projects related to real-world needs and situations. Australia needs future generations who understand the holistic nature of design and technology and who can apply design processes, develop, communicate and justify solutions, create systems and use technologies to meet identified needs and opportunities.

Students electing Design and Technology will engage in projects related to real-life contexts providing a rich setting for individuals and groups to develop holistic solutions and to discover underlying principles for quality design applications. This gives students the opportunity to:

- identify problems and opportunities
- research and investigate existing solutions
- analyse data and information
- generate, justify and evaluate ideas
- experiment with technologies
- manage and produce a major design project
- learn about design-thinking and social enterprise
- market and promote their product/design


## Contexts and Focus Areas of Design

The focus areas of design provide the context for designing, producing and evaluating projects. Students will choose to focus on ONE area of design each semester and develop a project relating to that area. Examples of focus areas and contexts for learning are:

- 3D Modelling and Animation
- Accessories and Jewellery
- Architecture
- Animal Enterprise
- Desktop Publishing / Website Design
- Electronics
- Engineered Systems and Computer-Aided Design
- Fashion
- Food and Nutrition
- Graphics
- Information and Communications Technologies
- Landscaping
- Robotics
- Sustainable Products
- Software, Coding and App Development
- Student-Negotiated Area of Design


## Mini Entrepreneurs Challenge - Design Project, Project Management and Enterprise Skills

Each semester, the course will culminate in a celebration of learning and students' projects through a Mini Entrepreneurs Challenge. Students will be introduced to fundamental enterprise skills and will be guided through the process to develop a marketing and finance plan to showcase their project.

As students develop their design project, they will document their learning and progress in a Design and Production Portfolio. Design and production folios reinforce and document student learning. This documentation provides the student with a means of recording all aspects of the design process used, evaluating and justifying the reasons for the decisions made and the real-world application of their project.

More information on this event will be provided closer to the event date.

## Course requirements

To satisfy the requirements of the course, students must undertake a range of practical experiences that occupy the majority of course time. Practical experiences allow students to develop skills and confidence in the use of a range of technologies and equipment. Student capability, confidence and expertise at their current stage of development are important considerations in determining the design projects to be undertaken in this course.

## DRAMA

## Materials Required: 128 page exercise book

Course Cost: Nil

## Course Information:

This course will cover the fundamental aspects of drama. Students develop creative thinking skills through analysis and performance of scripted and unscripted works. Students learn to develop self-confidence in communicating with others on an individual level, in small groups and to a larger audience. The course is designed to be a fun step towards Drama in Year 9 and Year 10.

## At the end of this course students are expected to be able to:

- Perform as a member of a group
- Discuss their own work and the work of others
- Present a performance to an audience
- Set up an appropriate space for a performance


## EXTENSION MATHEMATICS

Materials Required: Workbook and writing equipment
Course Cost: Nil

## Course Information:

This course encourages students to refine the skills taught in Stage 4 necessary for future studies of Mathematics. This course is designed for those students wishing to study Stage 5.3 Mathematics, the highest level in years 9 and 10 .

## INDUSTRIAL TECHNOLOGY

Materials required: A4 Folder, A4 Exercise Book, Geometry Set, Pencils, Pens, Sturdy Covered Shoes

Course Cost: \$25

## Course description

The study of Industrial Technology provides students with opportunities to engage in a diverse range of creative and practical experiences using a variety of technologies widely available in industrial and domestic settings.

Industrial Technology develops knowledge and understanding of materials and processes and important Work, Health and Safety requirements. Related knowledge and skills are developed through a specialised approach to the tools, materials and techniques employed in the planning, development, construction and evaluation of quality practical projects and processes.

Students study the interrelationship of technologies, equipment and materials used in a variety of settings and specific focus areas. Students may study the focus areas in integrated projects or as stand-alone units. Industry Focus Areas for learning may include:

- Farm Maintenance
- fences and gates
- maintenance and repair of farm appliances and equipment
- small structures for farm applications
- structures for containing/restraining livestock
- tools and equipment to assist on the farm


## - Metals

- fabricated projects
- metal machining projects
- sheet metal products
- Timber
- decorative timber products
- furniture items
- small bowls or turned items
- storage and display units
- storage and transportation products


## Course requirements

To satisfy the requirements of the course, students must undertake a range of practical experiences that occupy the majority of course time. Practical experiences allow students to undertake project work to develop skills and confidence in the use of a range of equipment, tools, processes and technologies, and skills in designing, producing and evaluating.

## OUTDOOR RECREATION

## Materials Required: Exercise Book, School Sport Uniform

## Course Cost: NIL

## Course Information:

This course will examine areas of outdoor recreation as part of a healthy lifestyle and lifelong physical activity.

It will include topics such as:
Bushwalking
Bike riding
Archery
Orienteering
Camp craft
Environmental education

## PHOTOGRAPHY

## Materials Required: A4 Display Folder (included in cost)

## Course Cost: \$25

## Course Information:

Students are introduced to photography by using compact digital cameras. Students will have the opportunity to experiment with taking interesting photographs, printing techniques and using digital scanners. They will be introduced to, and experience manipulating images, through digital software programs.

## At the end of this course students are expected to be able to:

- Identify and use various types of cameras
- Capture images electronically through the use of digital cameras to produce digital images
- Investigate methods of manipulating images through the use of software programs
- Select, appreciate and compose photographs


## SPORT SCIENCE

## Materials Required: Exercise Book, School Sport Uniform

## Course Cost: NIL

## Course Information:

This course will examine the relationship between sport and science.
It will include topics such as:
Physical Fitness
How to train to improve performance
Technology in Sport
Sport Safety
Science Principles in Sport

## STEM - (Science, Technology, Engineering \& Mathematics)

Materials required: Student BYOD (computer or laptop device)

Course Cost: NIL

## Course Description:

Offers wide opportunities involving Science Technology Engineering and Maths (STEM).

The main focus is on designing and building a robot that will compete in a number of competitions.

The focus of learning will be:

- Mathematics
- Science
- CAD Technical drawing - Essential skill for Engineers.
- Programming - The language of the future and what drives our robots.
- Electronics - How we connect the parts of our robots.
- Social Media - How we develop and promote our social media profile.
- Fabrication - how to put robot together.

This is hands on and practical work that will require a strong commitment to applying maths and science knowledge to mechanical and computerised systems.

## STEM activities may include:

- Science and Engineering Challenge
- Grok Learning National Programming Competitions
- Challenge days
- RoboCUP and Robotics Challenge
- First Robotics Challenge


## Online Subject Selection Instructions Year 8-2024

You will be issued your Edval subject selection WebCode through your DEC student email. The subject selection form will be open from 8:00 am Wednesday 9th August 2023 till 9:00 pm Friday 18th August 2023.

Please make sure you are at a computer which can print your subject selections. If you do not have computer and printer access at home staff will help you make your selections on one of the desktop computers in the Library.

## Step 1:

Check your DEC email for your Edval subject selection WebCode and follow the link. If you do not get an email please see Mrs Farebrother or Mr Lewis in the E18 staffroom.

## Step 2:

Enter your WebCode in the link


## Step 3:

Select the box below to open the web form.

## Step 4:

You should now see your name in the top right-hand corner of this blank subject selection form.


## Step 5:

Enter your subject selections using the drop-down lists.
Your choices should be entered in preferential order.
You must make two reserve selections in case one of your main selections does not run.


The form will display the cost of electives which require a fee and a Total for all elective fees.

## Step 6:

When complete, click on 'Submit'. Your submission will be checked, and if valid it will be submitted.

## Step 7:

Please print your choices page. Ask your parent or guardian to write their name and signature on the base of the form and return it to Mrs Farebrother, Mr Lewis or the box in the front office by Friday 18 ${ }^{\text {th }}$ August 2023.

## Year 82024 Elective Choices

Student name: Peter Pan (Test student Yr8) (DUMMY!8)
Notes: Your choices are registered.
Submitted date: Sun 6 Aug 2023 13:51:47


Main units

| Main Units | Subject |  | Units |
| :--- | :--- | :--- | ---: |
| $8 \mathrm{D} \& \mathrm{~T}$ | Design and Technology |  | 2 |
| 8 PHO | Photography |  |  |

Reserve units

| Reserve Units | Subject | Units |  |
| :--- | :--- | :--- | :---: |
| 8DAN | Dance |  | 2 |
| 8SPS | Sport Science |  | 2 |

Please get form signed, and return to school by Friday 18th August.

Signature:
Parent / Carer

## PLEASE REMEMBER:

The online entry of subject selection must be completed by Friday $18^{\text {th }}$ August 2023.
The signed hard copy of your selections must be submitted by Friday $18^{\text {th }}$ August 2023.
If you have any problems following this online selection process, please see Mrs Farebrother or Mr Lewis in the E18 staffroom.

