













EXCEL 2021

Exciting experiences for extension

Year 8 elective selection guide for acceleration courses & taster electives

Principal's Welcome

Welcome to the Callaghan EXCEL 2021, our new Year 8 elective program designed to give you the opportunity to explore and discover beyond the standard high school curriculum.

Are you interested in continuing to extend yourself in an existing area of passion or interest, or would you prefer to get a taste of something new?

This booklet outlines all the elective courses you can choose from and shows you how to apply for your preferred elective. There's also information for your parents and carers about what our Year 8 EXCEL extension learning program is all about.

It's a good idea to go through this booklet with your family and discuss your preferred electives together before making your elective selections.

To support you with your decision–making we are hosting a Year 8 Elective Expo and Information Session on Tuesday 11 August 2020. This will give you a chance to talk to our EXCEL Course Coordinator and get all your questions answered.

Good luck with your decision-making!

Hayley Macdonald Principal, Callaghan College Waratah Campus

Contents

Principal's Welcome 2	STEM-X19
What is EXCEL? 3	Food Science 20
Inquiry Based Learning4	Exploring Future Technologies cont 21
Getting Started 5	Real World Maths 22
CREATE-X6	Design in Minecraft
Music Enrichment continued 7	Executive Chef continued 24
Dance Enrichment continued 8	Forensic Science continued 25
Visual Arts Enrichment continued 9	Taster Electives 26
Drama Enrichment	World Quest Creator
QUEST-X	CrossFit Teens 28
Lights, Camera, Action	Just Do It
apanese Language	What's Cooking 30
History's Mysteries14	Nailed It
Cultural Studies15	Submit your choices online 32
German16	FAQ's
SPORT-X	X-Stream Application Form 35
Sports Academy continued18	

What is EXCEL?

The EXCEL elective program is unique to Callaghan College and gives you an opportunity to deepen and extend your learning in an area of interest, or get a taste of a variety of subjects that are available in later years of high school. You will spend six hours a fortnight as part of the regular school timetable on your EXCEL elective in Year 8.

In addition to your EXCEL elective, Year 8 students study seven core subjects as part of the NSW Curriculum. These subjects are English; Mathematics; Science; Personal Development Health and Physical Education (PDHPE); History and Geography (HSIE); Design and Technology; Music and Visual Arts.

Our EXCEL electives are organised into five streams or pathways of study. You continue to do electives from a single X-Stream all the way from Year 7 to Year 12 allowing you to develop deep learning and expertise in your specific interest area. There's also the flexibility to study an elective from a different faculty area each year through our Taster Elective stream.

Electives in our X–Streams are designed to be more academically challenging than our Taster electives. For this reason, we require students wishing to swap X–Streams or apply for one for the first time in Year 8 to complete an application form (see page 35). Students remaining in the same X–Stream don't need to complete a new form this year.

CREATE-X:

For students wanting to enhance their artistic talents, this pathway will extend you in a range of creative industries, including dance, music, visual and digital arts.

QUEST-X:

For students who are passionate about the world around us. This pathway explores humanities, language, history, entrepreneurship and more.

SPORT-X:

For students who love all things sport, health promotion and physical fitness. This pathway will challenge you to maximise your physical abilities and explore the physical and behavioural foundations of sport and exercise.

STEM-X:

For students who love investigating the world around us and solving real world problems. This pathway provides you with additional in-depth opportunities in science, technology, engineering and mathematics.

Taster Electives:

For students who don't yet have an established interest area or are not sure what to choose. This stream provides a taste of a number of different courses throughout Stage 4 (Year 7 and 8). The benefit is variety and breadth of learning, rather than extension in a single area of interest.

Inquiry Based Learning

All our EXCEL electives are based on an Inquiry Based Learning philosophy. This is a highly engaging, student centered method. It aims to foster future learning skills and provide opportunities for students to apply and practice these skills through real world, personally meaningful projects.

Learning is organised around a driving question or challenge that requires deep research and inquiry; students then engage in enrichment experiences through our links with industry and community; and finally they are required to share their learning with a final product, showcase or performance.



Critical Thinking Skills

Focusing on a student's ability to think creatively and analyse, synthesise, and apply information to make informed decisions and solve real world problems.



Communication Skills

These skills focus on a student's ability to share their thoughts clearly and appropriately and confidently present their learning to an audience.



Organisational Skills

These skills focus on a student's ability to meet deadlines by planning projects, managing their time and setting and achieving goals.



Teamwork Skills

Focusing on a student's ability to cooperate with other students and manage relationships appropriately in order to achieve a common goal.



Digital Literacy Skills

These skills focus on a student's ability to responsibly use a wide range of current and emerging technologies to aid or extend their learning.



Citizenship Skills

These skills focus on a student's ability to appreciate diverse perspectives, give and receive feedback and develop their awareness of and skill in ethical decision making.

Getting Started

Ready to check out what's on offer? Read through the course descriptions on the following pages and find out what you can expect to DISCOVER and learn about, what you will be able to CREATE and how you will be expected to SHARE your learning in each elective.

Important information to guide your decision-making:

- Continuing your Year 7 elective: If you are enjoying your Year 7 X-Stream elective, we encourage you to select the continued course for Year 8. These were designed as two year continuum courses covering foundational skills and knowledge in Year 7 which you will build upon in Year 8.
- 2. Swapping electives within your stream: if you wish to have a change in Year 8 the simplest option is choosing another elective within your current X-Stream or choosing a Taster elective. There is no additional paperwork associated with either of these options. You just need to nominate your preferred electives online (see page 32).
- 3. Swapping X-Streams: You can apply for a new X-Stream in Year 8 by completing the application form on page 35. In this form you need to demonstrate your interest or talent in the area. If you are accepted you will be required to complete a short bridging course.

- 4. Be ready for the challenge. Be sure to select elective preferences you are prepared to do. If the elective course requires you to perform, participate, speak publically, create or problem solve, you need to be up to the task.
- 5. Talk to your teachers and family if you want to change your elective for Year 8. They have a good understanding of your strengths and may have some good suggestions. It's particularly important to talk to your parents and carers about any additional fees or outside school excursions associated with any of your preferred courses.
- 6. Go for a Taster elective if you can't decide. The Taster Elective Stream offers something for everyone and gives you the flexibility to try electives from different faculties as you progress through high school.
- See symbol for course options for students with Special Education needs.

Remember, if you don't like your choice, you can always apply to change before Week 4, Term 1 2021



CREATE-X



Are you passionate about dance, music or drama? Do you love drawing, painting or modelling clay? Are you a natural at performance or singing? Can you design amazing invites, posters and magazines or film short movies? CREATE-X is for the creative spirit and offers a range of options for students to express themselves.

Our Create–X teachers are from our Creative and Performing Arts (CAPA) Faculty. They are passionate about their subject areas and love facilitating deep learning in their students.

They craft driving questions to ignite wonder and passion in their class, and guide each student to develop their own ideas, stretch their limits, work through problems, ask tough questions, reflect and share their learning through performances or showcases.

They are all life long learners in the creative and performing arts – outside of work they are musicians, dancers, photographers, designers, singers, film makers and painters.



Pictured: Miss Salter, left, and her sister performing at a wedding

"I love what I'm teaching. Music is a huge part of my life. I have set up a recording studio at home and I'm constantly making music. I'm always experimenting and trying out new things. Being in a classroom full of students who share the passion is so much fun."

- Miss Salter, CREATE-X Coordinator

Meet Sanne - Visual and Digital Arts student

Why I chose this elective

I make my own art at home, like painting things and building sculptures. I'm really interested in Art and wanted to learn more about it. I thought the Visual Arts elective would suit me!

What I love about my elective

I love that I can explore different ways of doing Art that I didn't know before.

My teacher knows Art, is always interested in what we are doing and helps us to get better. We are working on a project at the moment that lets me experiment with different mediums - paint, drawing, crayons and collage.

I also love how we get to review each other's

work. Receiving feedback from my classmates has helped me refine my work.

CREATE-X Visual Arts is just one option, turn the page to see more.



Music Enrichment continued

A course for students with a passion for music

Discover

- Learn the fundamentals of music performance and composition
- Experiment with a wide range of technologies used in the music industry, including recording equipment
- · Learn microphone techniques
- Engage in personalised learning opportunities to foster performance skills on an instrument of choice (including vocals)

Create

- Participate in classroom activities in performance and composition, involving the use of available instruments (keyboards, accoustic guitars, electric guitars, drum kits)
- Write and perform your own music compositions using an instrument of your choice (including voice)

Share

 Students will be expected to showcase their acquired skills at various school events during the year, including Variety Night

Tips for applying

- This subject should be considered by students who wish to represent the school in one of our campus or College bands and/or perform at our Variety Night and other school events
- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Create-X stream. In your application be sure to provide examples of your previous music experience and achievements inside and outside of school

Parent Information

- Cost: \$50 (itemised in your school fees)
- Check your child is ok with in-class and public performances as these are a requirement of this course



Future Pathway

- Year 9 Music
- Year 9 and 10 Music Production



Stage 6 Subject selection

- Preliminary and HSC Music
- Certificate III Music Industry (VET)



- Musician
- Recording Engineer
- Music Therapist
- Songwriter
- Music Director/Conductor

Dance Enrichment continued

For dancers with a passion for performance and choreography

Discover

- The fundamental of dance as an artistic practice, including the elements of dance and safe dance practice
- How to use technology to enhance performance
- Visit and use our new dance facilities at Jesmond Senior Campus

Create

- Solo and small group dance performances, incorporating set movements as well your own and classmates' choreography
- Photos and film to document dance performances for reflection

Share

- Your learning through class and public performances throughout the year
- Your reflections on your own learning and performances, as well as provide constructive feedback to classmates
- Represent the College at the Hunter Dance Festival and StarStruck

Tips for applying

- This subject should be considered by students who are interested in representing the school at Star Struck, Hunter Dance Festival, or as part of our school Performance Troupe
- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Create-X stream. In your application be sure to provide examples of your previous dance experience and achievements inside and outside of school

Parent Information

- Check your child is ok with public performances as they are a requirement in this course
- Cost: \$50 (itemised in your school fees)
- There may be additional costs if your child also chooses to represent the school in cocurricular dance opportunities e.g. Star Struck





Future Pathway

Year 9 Dance Elective



Stage 6 Subject Selection

- Preliminary and HSC Dance
- Entertainment Industry (VET)



- Professional Dancer
- Choreographer
- Stage Manager
- Dance Therapist
- Dance Teacher

Visual Arts & Digital Arts Enrichment continued

A course for students with imagination and artistic flair

Discover

- New artwork processes and materials not usually available to junior students
- Industry-standard digital art creation tools and techniques

Create

 A variety of artworks using drawing techniques (including digital forms), print making methods, 3D forms (including sculpture and ceramics), stop motion animation, painting and collage

Share

• Exhibit your work at school Open Days

Tips for applying

- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Create–X stream. In your application be sure to provide examples of your previous experience and achievements in visual arts
- Consider including some photos of artworks that you're proud of and don't forget to write why you want to do the course

Parent Information

Cost: \$50 (itemised in school fees)



Future Pathway

- Year 9 and 10 Visual Arts
- Year 9 and 10 Photography
- Year 9 and 10 Digital Media



Stage 6 subject selection

- Preliminary and HSC Visual Arts
- Preliminary and HSC
 Photography, Video
 & Digital Imaging
- Preliminary and HSC Visual Design



- Professional Artist
- Designer
- Graphic Designer
- Illustrator
- Photographer

Drama Enrichment

For the performer who loves the art of theatre

Discover

- The importance of Drama in modern society
- The fundamentals of effective performance through participation in verbal and movement experience, improvisation and theatre games
- Explore how the work of dramatists and various stage production professionals contribute to effective performance
- Learn about the performing arts industry through our links with actors, directors, writers and stage, lighting and sound designers
- Visit our new drama facilities at Jesmond Senior Campus

Create

- Write scripts and actively participate in play building activities
- Create performances and demonstrations set by both teachers and students

Share

 Your dramatic talents through participation in theatre sports challenges and performances at various events e.g. Variety Night, College musicals

Tips for applying

 You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Create-X stream. In your application be sure to provide examples of your previous drama experience and achievements inside and outside of school

Parent Information

- Cost: \$50 (itemised in your school fees)
- Check your child is ok with class and/ or public performances as they are a requirement in this course





Future Pathway

- Year 9 Drama elective
- Year 10 Drama elective



Stage 6 Subject Selection

- Preliminary and HSC Drama
- Entertainment Industry (VET)



- Actor
- Director
- Producer
- Stage Manager
- Set, Lighting or Sound Designer



QUEST-X



Are you passionate about communication and language, or learning about people, places and ideas? Do you love to tell stories, learn about different cultures or watch a good film or play? QUEST-X is for students who are curious about the world around them and provides a range of choices in the humanities and social sciences.

Our QUEST-X teachers are from our English, Languages and Human Society and its Environment (HSIE) Faculties. They are passionate about their subject areas and love facilitating deep learning in their students.

They craft driving questions to ignite wonder and passion in their class, and guide each student to develop their own ideas, stretch their limits, work through problems, ask tough questions, reflect and share their learning through presentations or showcases.

They are all life long learners in the humanities and social sciences - outside of work they love travel, literature, culture, languages and advocating for a better world.



Pictured: Ms Seferovic, left, with author Jack Heath

"I come from a long line of authors, filmmakers and artists. Films and literature have always been a big part of my life. In my spare time I love attending film openings and book launches and I'm always looking for opportunities to introduce the authors and filmmakers to my students at school. I'm loving teaching students who are as passionate about books and films as I am!" - Ms Seferovic, 'Lights, Camera, Action' Teacher

Meet Sebastian - Creative License student

Why I chose this elective

I chose this elective because I'm interested in films and filmmaking. In Creative License you get to make films and be creative – you can go in your own direction.

What I love about my elective

You can create your own books and films – and you get to choose your focus! I also like that we learn

how to use photoshop to make our own movie posters, watch films at the cinemas and learn how movies are made.

The QUEST-X stream covers a range of electives from Anime and Manga to History's Mysteries. Turn the page to find more.



Lights, Camera, Action

This course is a continuation of Creative License from Year 7

For students who love film, creative writing and communications

Discover

- The fundamentals of design, animation, cinema techniques, photography and desktop publishing
- Explore the art of cinematography and narrative story telling through watching and critiquing films
- Explore more about the creative industries through visits from industry professionals, including authors and publishers

Create

- Web pages
- Promotional materials
- · Write news articles and film reviews
- Develop essential skills for film work in Drama and Extension English 2 in Year 11 and 12

Share

 Showcase your creations in the library for Open Day

Tips for applying

- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Create-X stream. In your application be sure to share about your interest in film or creative writing
- Consider including some creative writing samples or examples of previous desktop publishing creations

Parent Information

- Cost: \$50 (itemised in school fees)
- This course involves mandatory enrichment excursions to cinemas, as well as class visits from industry experts





Future Pathway

- Year 9 and 10 Film Studies
- Extension English
- Visual Arts



Stage 6 Subject Selection

- Drama
- Extension English
- Business Studies
- Marketing (VET)
- Entertainment Studies



- Advertising & Marketing
- Journalism
- Publishing
- Film
- Broadcast Production



Japanese Language

This course is a continuation of mandatory Language from Year 7

Explore Japanese language and culture with anime (Japanese animations) and manga (Japanese comics and graphic novels)

Discover

- More advanced Japanese vocabulary and grammer to build on your Year 7 studies
- Learn about various aspects of Japanese culture and language through analysing anime and manga
- Learn about the Japanese anime and manga industry and the reasons for its global appeal
- Learn listening, timing, production and creative skills

Create

- · Create and act out scenarios in Japanese
- Pursue a passion project around an aspect of Japanese culture that interests you
- Work in a team to conceptualise, write, illustrate and produce your own anime short or manga comic strips

Share

- Share your developing language skills through acting out scenarios and participating in filmed speech and dialogue activities
- Showcase your anime short or manga strip at Open Day

 Presenting your discoveries from your passion project to your peers

Tips for applying

 You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Quest-X stream. In your application form be sure to share about your interest in Japanese language and culture as well as any previous language experience

Parent Information

Cost: \$50 (itemised in your school fees)



Future Pathway

- Year 9 and 10 Languages (100 hour) course
- Year 10 Japanese (200 hour) course
- Year 9 and 10 Visual Art, Graphic Design



Stage 6 Subject selection

- Preliminary and HSC Japanese Beginners
- Preliminary and HSC Visual Art
- Photography, Video and Digital Imaging (VET)



- Translator
- Animator
- Writer
- Voice Actor
- Storyboard Artist

History's Mysteries

For students who love a good historical mystery!

Discover

- Learn about modern day historical mysteries, including the Bermuda Triangle, Jack the Ripper, City of Atlantis and The Pyjama Girl
- · Sharpen your analytical and investigative skills
- Learn from real world historians and content creators about how to conduct historical investigations and reports

Create

- Undertake historical mystery investigations

 compiling evidence, creating and
 discarding theories and developing a case
 for your final position to present to your
 class (much like a Police Investigator)
- Develop investigative reports based on your research

Share

 Showcase your learning by presenting your case to a jury of peers and a judge (teacher). You will be assessed on your understanding of key historical concepts, use and analysis of historical sources and your research, explanation and communication skills

Tips for applying

- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Quest-X stream. In your application form be sure to share about your interest in history and tell us why you want to do the course
- You might want to share one of your history projects from Year 7

Parent Information

Cost: \$50 (itemised in school fees)



Future Pathway

- Year 9 History elective
- Year 10 History elective



Stage 6 Subject Selection

- Preliminary and HSC
 Ancient History
- Preliminary and HSC Modern History



- Historian
- Lawyer
- Curator
- Archivist
- Information Manager



Cultural Studies

For the cultural explorer who wants to expand their world view

Discover

- Discover the practices, traditions, language, dress and music of various cultures
- Deeply explore and think critically about your own identity and culture
- Discuss topical issues from various cultural case-studies and develop empathy for other ways of life

Create

- Design your own family tree and produce an autobiography
- Develop intercultural research tools like interviews and questionnaires
- Prepare and cook cultural foods
- Create presentations with peers based on your secondary research findings

Share

- Present your special interest research findings to your class
- Showcase your classwork at special events like our school's Harmony Week celebrations
- Your intercultural primary research

and autobiography with your teacher for assessment

Tips for applying

 You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Quest-X stream. In your application form be sure to share about your interest in exploring different cultures and say why you want to do this course

Parent Information

- Cost: \$50 (itemised in your school fees)
- This course involves enrichment excursions to give students a taste of aspects of different cultures e.g. visiting a Japanese restaurant and interviewing members of other cultures



Future Pathway

 Year 9 and 10 International Studies



Stage 6 Subject Selection

- Preliminary and HSC Society and Culture
- Preliminary and HSC Aboriginal Studies



- Anthropologist
- Social Researcher
- Human Resources
 Manager
- Diplomat
- Social Worker



This course is a continuation of mandatory Language from Year 7

For students who want to speak, read and write in German

Discover

- Continue to develop your skills in speaking, reading and writing German
- Examine German traditions and culture
- Develop appreciation of your own and others' cultural practices and perspectives

Create

- Extend your vocabulary so you can competently communicate with others in German
- Exchange letters and videos with students from Germany, Austria and Switzerland and create international friendships via online forums
- Research German culture, prepare, and taste German foods and view German advertisements and movies
- Contribute to creating a German festival at school

Share

 You will be assessed on the speaking, writing and understanding of German

Parent Information

• Cost: \$50 (itemised in your school fees)



Future Pathway

- Year 9 German
- Year 9 and 10 Languages



Stage 6 Subject Selection

Preliminary and HSC German



- Translator
- Interpreter
- Diplomat
- Tourism and Hospitality
- Customer Service



SPORT-X



Are you passionate about all things sport, health and physical fitness? Do you love challenging yourself physically and mentally to achieve your sporting goals? Are you curious about the biomechanics and psychology behind high performance, or do you wonder what happens behind the scenes of successful sporting events? SPORT-X is for the natural athlete or sports enthusiast and offers a range of options to assist students hone their passion.

Our SPORT-X teachers are from our Personal Development, Health and Physical Education (PDHPE) Faculty. They are passionate about their subject areas and love facilitating deep learning in their students.

They craft driving questions to ignite wonder and passion in their class, and guide each student to develop their own ideas, stretch their limits, work through problems, ask tough questions, reflect and share their learning.

They all share a lifelong commitment to health and physical activity – outside of work they coach, watch, officiate, administer and play all kinds of sports.



Pictured: Mr McGavern, left, CROSSFIT Teacher

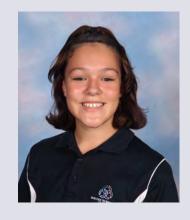
"I love what I'm teaching. Sport is a huge part of my life. I coach aerobics, Special Olympics swimming and adjudicate national aerobics competitions. I love developing athletes and seeing them achieve their goals. Teaching students who are keen to develop and expand their sporting passion is the best." - Ms Brown, SPORT-X Coordinaator

Meet Ruby - Sport Academy student Why I chose this elective

I chose Sports Academy because I love sport and exercise. I wanted to learn more about sport and how our body works.

What I love about my elective

I love how it's a mix of sport and theory. You learn different skills and different sports.



Sports Academy

Explore the potential of sport for enjoyment, employment and empowerment of others

Discover

- How to make sport accessible to everyone
- Careers and volunteer opportunities in sport
- How to design an action research project
- Creative ways to make a difference to others through sport

Create

- Actively participate in a range of individual and team games
- Create a mini sporting tournament
- Complete a mini research project
- Compete in a collaborative challenge to plan and implement a sporting initiative aimed at helping others

Share

- Share your reflections and learnings from a range of specialist sporting workshops
- Share your action research findings with researchers from the University of Newcastle
- Showcase your sporting initiative aimed at helping others with peers and at our Campus Open Day

Tips for applying

- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the Sport-X stream. In your application form be sure to share about your experience and achievements in individual and team sports as well as why you want to do this course
- Students who are enrolled in the Year
 7 Sports Academy elective do not have to reapply to do this course

Parent Information

- Cost: \$50 (itemised in school fees)
- Students are required to actively participate in a range of individual and team games and specialist sporting workshops





Future Pathway

Year 9 and 10 Physical Activity and Sports Studies (PASS)



Stage 6 Subject selection

- Preliminary and HSC PDHPE
- Sport, Lifestyle and Recreation
- Cert III in Sports Studies



- Coach/Trainer
- Sport Scientist
- Physiotherapist
- Sport Administrator
- Professional Athlete



STEM-X



Are you passionate about coding, exploring the natural world or designing and building structures? Are you curious about how things work, or are you always coming up with creative solutions to a problem? Are you a fan of numbers, or do you love hands-on experiments? STEM-X offers a range of choices for students who are natural problem solvers and critical thinkers and have an interest in maths, science or technology.

Our STEM-X teachers are from our Science, Maths and Technological and Applied Studies (TAS) Faculties. They are passionate about their subject areas and love facilitating deep learning in their students.

They craft driving questions to ignite wonder and passion in their class, and guide each student to develop their own ideas, stretch their thinking, work through problems, ask tough questions, reflect and share their learning.

They are all life long learners in STEM and are committed to developing the next generation of innovators.



Pictured: Mr Hamilton, right, STEM-X Coordinator

"I have always loved how versatile and adaptive technology is in our world. It's exciting that we now have much greater access to technology, such as 3D printing, to solve everyday problems. I love problem solving and utilising my creativity and it's very rewarding to witness the development of these skills in my students."

- Mr Brent Scrivener, Exploring Future Technologies Teacher

Meet Zanetta - Exploring Future Technologies student

Why I chose this elective

I chose this elective because I wanted to learn more about tech, what effect it would have in the future and how to use it to have fun. The Exploring Future Technologies is perfect for me because I get to learn all of this and more!

What I love about my elective

I love my elective because we do a lot of practical work, we get the chance to work independently

and we get to use computers instead of writing stuff down. I also love the way our projects encourage us to think about how to use tech to benefit others.

The STEM-X stream covers a range of electives, from Exploring Future Technologies to Real World Maths. Turn the page to find out more.



Exploring Future Technologies continued

For techies who want to use technology to improve lives

Discover

- Explore the applications for robotics and other emerging technologies
- Learn how to use technology creatively to solve problems
- Develop skills in computational thinking
- Explore how technology is used in industry through presentations from local business owners

Create

- A range of digital solutions using technologies such as coding, Computer Aided Drawing (CAD), 3D printing, radio controlled technologies (eg. drones) and robotics
- Plan, manage and engage in both individual and team projects

Share

- Showcase your projects at our school Open Day. You might display a 3D printed model or show your robot navigating an obstacle course
- A journal detailing your learning journey

Tips for applying

 You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the STEM-X stream. In your application be sure to share about your experience with coding and other technology, explain why you love technology and why you want to do this course

Parent Info

- Cost: \$50 (itemised in school fees)
- Students will compete in robotics competitions and visit local businesses as part of this course



Future Pathway

- Year 9 and 10 iSTEM
- Year 9 and 10 Graphics
- Year 9 and 10 Exploring Future Technologies



Stage 6 Subject Selection

- Design and Technology
- Information Processes and Technology
- Software Design and Development
- Mathematics



- Engineer (electrical, electronic and mechatronics)
- Computer Programmer
- Software Developer
- Web Developer



Food Science

For foodies who want to break the rules with the help of science

Discover

- Extend your knowledge in scientific investigation
- Examine cause and effect relationships in food chemistry and microbiology through the processes of caramelisation, dextrinization, gelatinisation, fermentation and dehydration
- Explore the fantastical world of molecular gastronomy, including its social, artistic and technical applications

Create

- Design and prepare new dishes and culinary techniques
- Actively participate in and design food science experiments
- Produce models of micro-organisms using Minecraft and 3D paint
- Practice molecular gastronomy techniques

Share

 Showcase your learning by developing and publishing an online reference resource designed to help cooks identify and explain common mistakes in their cooking processes Share the wonders of food science by collaboratively preparing and hosting a gastronomy experience for your favourite teachers

Tips for applying

- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the STEM-X stream. In your application be sure to share about your past experiences with cooking and say why you want to do this course
- Consider including some photos of some of your kitchen experiments

Parent Information

- Cost: \$50 (itemised in your school fees)
- Homework for this course can include helping out with cooking dinner and applying knowledge to improve on family recipes!



Future Pathway

- Year 9 and 10 Food and Design
- Year 9 and 10 Food Technology
- Year 10 Hospitality (VET)



Stage 6 subject selection

- Preliminary and HSC Chemistry and Biology
- Preliminary and HSC Food Technology
- Hospitality (VET)



- Chef
- Food Artist
- Food Scientist
- Dietitian
- Nutritionist

Design in Minecraft

For coders, builders, gamers and designers who want to learn STEM skills while doing projects with friends

Discover

- Learn how to install and use the features and functions of two versions of Minecraft
 Minecraft Edu and Minecraft Education
- Learn about planning, evaluation, design, problem solving, spatial mathematical awareness, coding, navigation, engineering, automation and game making
- Develop soft skills in collaboration, communication, openness to feedback and adaptability through team based construction projects

Create

- Participate in various team challenges and projects, including designing and building an automated factory or bridge, programming virtual robots to complete various tasks and creating interactive games
- Complete a minor and major mini group project based on the skills you have learned

 create your own driving question, plan, construct, work iteratively to refine your creations and then share and communicate about your work with a wider audience

Share

- · Videos and screen shots of your builds
- Your project planning documents and reflections on your learning
- Your creations through opening your games or worlds for others to explore during lunch breaks
- Assessments in this course are based on project work. There are no set tests or assignments

Tips for applying

- You will need to complete an application form
 if you want to choose this elective and your
 Year 7 elective was not in the STEM-X stream.
 In your application be sure to share about
 your previous experience and achievements
 using Minecraft. Show us what you can do!
- Consider sharing some screen shots of your creations and tell us why you want to do this coure

Parent Information

• \$50 (itemised on your school fees)



Future Pathway

Year 9 and 10
 Minecraft elective



Stage 6 subject selection

- Preliminary and HSC
 Information Processing
 and Technology (IPT)
- Preliminary and HSC Engineering Studies
- Preliminary and HSC Physics or Chemistry



- Software Engineer
- Information Technology
- Electrical Engineer
- Architect
- Designer



Real World Maths

For budding mathematicians who love problem solving

Discover

- How maths is used in the financial industry, the virtual world and in computer programming
- Learn programming skills using Scratch, MIT app inventor and Minecraft

Create

- Create and deliver a presentation that teaches a mathematical concept to a peer
- Work in a small group to create a virtual world that teaches peers numeracy concepts
- Develop a community survey and analyse and present the data gathered
- Access experts in Minecraft, programming and finance to help you complete important parts of your projects

Share

- Showcase your learning through sharing your virtual learning world with your peers
- Display your data project and 'teach a peer' and graphing presentations at Open Day

Tips for applying

 You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the STEM-X stream. In your application be sure to share about your passion for maths and outline your previous achievements in this subject area

Parent Info

• Cost: \$50 (itemised in your school fees)



Future Pathway

- Year 9 and 10 iSTEM
- Year 9 and 10 Numeracy elective (TBC)



Stage 6 Subject Selection

Preliminary and HSC Advanced Mathematics



- Software Engineer
- Data Analyst
- Statistician
- Financial Manager
- Machine Learning Engineer

Executive Chef continued

For foodies curious about the science behind food preparation

Discover

- · Food technology used within the kitchen
- Develop knowledge and skills in food health and safety
- The science behind food preparation
- Explore the evolution of the contemporary Australian cuisine

Create

- Design, plan and prepare food that is safe to eat and reflects Australia's everchanging cuisine
- A journal/portfolio of your learning throughout the year

Share

Showcase your learning at our campus
 Open Day through meal samples, recipe cards and your learning journal

Tips for applying

- You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the STEM-X stream. In your application be sure to share about your past experiences with cooking and say why you want to do this course
- Consider including some photos of some of your kitchen experiments

Parent Information

• Cost: \$80 (itemised in your school fees)



Future Pathway

- Year 9 and 10 Food and Design
- Year 9 and 10 Food Technology
- Year 10 Hospitality (VET)



Stage 6 subject selection

- Preliminary and HSC Food Technology
- Hospitality (VET)



- Chef
- Dietitian
- Nutritionist
- Food Artist
- Food Scientist



Forensic Science continued

For the investigator who wants to learn the skills of solving crime

Discover

- Learn about the role of Forensic Scientists in solving crimes
- Explore a variety of techniques used by Forensic Scientists, including ballistics, fingerprinting, blood splatters, DNA, fibre analysis, trace evidence, ballistic poisons and toxins, imprints, facial reconstruction, arson and forgery
- Examine real life crime investigation stories

Create

- Participate in hands-on Forensic Science investigation activities, including dusting for finger prints, examining fibres under the microscope and testing how different things burn
- Examine criminal case studies and create a miniature crime scene

Share

 Draw on the skills you have learnt to share a Crime Scene investigation display which might include creative diorama, dramatised recreation, photography and digital presentations

Tips for applying

 You will need to complete an application form if you want to choose this elective and your Year 7 elective was not in the STEM-X stream. In your application be sure to say why you want to do this course

Parent Information

• Cost: \$50 (itemised in your school fees)



Future Pathway

- Year 9 & 10 Forensic
 Science
- Any other X-STEM elective



Stage 6 subject selection

Preliminary and HSC Chemistry, Biology and Physics



- Forensic Molecular Biologist
- Forensic Toxicologist
- DNA Expert
- Police Investigator
- Biomedical Scientist

Taster Electives



Do you love variety, hands-on learning, or having a go at something you've never done before? Are you keen to experiment and keep a broad range of interests rather than specialising in a single area? Are you still searching for your true passion? Our Taster Electives offer something for everyone – you can try your hands at textiles or woodwork, play a range of sports or learn new skills in food preparation. The aim of our Taster Elective stream is to give you a taste of the kinds of subjects on offer in later years of high school.

Our Taster Elective teachers are from our Technological and Applied Science (TAS), Personal Development, Health and Physical Education (PDHPE), English, Languages Other Than English (LOTE) and Human Society in its Environment (HSIE) Faculties. They love their subject areas and enjoy introducing students to what's on offer in their field through practical learning.

They craft driving questions to ignite wonder and passion in their class, guide each student to develop their skills and ideas, assist them to work through problems and encourage them to reflect and share their learning.



Pictured: Mr Gorgievski, centre, Industrial Arts Teacher

"One of the things I remember fondly as a kid was nailing stuff to old bits of scrap timber from around our house. Twenty-five years on and I still love working with timber and helping to nurture and ignite that same enthusiasm in my students." - Mr Hamilton, 'Nailed It' Teacher

Meet Alaura and Finn - 'What's Cooking' and 'Nailed it' electives

Why I chose this elective

I chose this elective because I thought it would be a great way to step out of my comfort zone and make new friendships.



What I love about my elective

I love that you learn really good skills so you can help your family with cooking at home. I also like the way we work as a team – we all do our bit to make a really good dish.

Why I chose this elective

I tried 'Nailed It' as an elective as I wanted try something new and thought that it might help me later in life.

What I love about my elective

My teacher, the people in my class and that I get some freedom to choose my focus.



World Quest Creator

For the imaginer who loves creating their own worlds and characters

Discover

- Learn how to create vivid settings and develop characters
- Explore a variety of narrative forms and features, including Fantasy, Science Fiction, Manga and Steampunk
- Learn the stages of the quest narrative archetype (the hero's journey) and how to apply them to your own narratives

Create

- Produce a project based on a world you create. It might be a short film, virtual world, card or board game
- Engage with role playing games like Dungeons and Dragons and Talisman
- Create presentations using Sway to share your project with the class

Share

- Showcase your learning by displaying your project at Open Day
- Reflect on your developing skills in your learning portfolio
- Present your Sway to the class

Parent Info

• Cost: \$50 (itemised in your school fees)



Future Pathway

Year 9 and 10

Quest–X Electives



Stage 6 Subject Selection

Standard, Advanced and Extension English



- Writer
- Publisher
- Journalist
- Advertising Copywriter
- Marketing Manager

CrossFit Teens

Develop a lifelong love of movement with this all round fitness course

Discover

- Safe movement and lifting techniques
- How to use training to improve health, mobility and performance
- The fundamentals of nutrition and recovery for health and performance
- The principles of managing competitive sporting events

Create

- Actively participate in CrossFit strength and conditioning and functional fitness training in a fun, group environment
- Create your own functional training programs to increase physical competence
- Contribute to the organisation and management of an annual CrossFit Tournament by taking on one of the numerous roles and responsibilities for the event

Share

 Share your learning in event management through your active role in organising the annual CrossFit Tournament Share your mastery of movement patterns in a number of foundational exercises through participation in practical assessments

Parent Information

• Cost: \$50 (itemised in school fees)





Future Pathway

Year 9 and 10 Physical
Activity and Sports
Studies (PASS)



Stage 6 subject selection

- Preliminary and HSC PDHPE
- Preliminary and HSC Sport, Lifestyle and Recreation (SLR)



- Sports Scientist
- Physiotherapist
- Coach/Trainer
- Sport Administrator
- Athlete



Just Do It

Explore fitness for health

Discover

- Study the fundamentals of elite sports coaching
- Learn how to design tailored coaching sessions for athletes
- Learn the skills and qualities of effective umpiring and refereeing
- Apply critical thinking skills in the outdoor recreation setting

Create

- Your own backyard fitness circuit (including yoga, boxing and strength training)
- Coaching sessions encompassing skills and programs to support athletes off the field

Share

- Showcase your learning in a video that will be screened at Open Day
- Share your learning with your peers by inviting them to participate in the sessions you develop in class
- Share your love of sport through active participation in class activities

Parent Information

• Cost: \$50 (itemised in school fees)





Future Pathway

Year 9 and 10 Physical Activity and Sports Studies (PASS)



Stage 6 subject selection

- Preliminary and HSC PDHPE
- Preliminary and HSC Sport, Lifestyle and Recreation (SLR)



- Sports Scientist
- Physiotherapist
- Coach
- Sport Administrator
- Athlete

What's Cooking

Learn the basics of cooking

Discover

- The basics of cooking
- How to safely work in a kitchen using a variety of equipment and cookery methods
- Examine food marketing and how it impacts on our expectations and choices
- Learn how to cook a variety of healthy meals you can make at home

Create

- Experiment with recipes to create new food flavours and experiences
- Develop food to specific themes
- Create taste experiments to explore the impact of food on our senses

Share

- Share your healthy food creations with guests at a school event
- Host a taste testing table at recess and lunch to share your learnings about taste with your peers
- Share your learnings in your learning portfolio

Parent Information

• Cost: \$80 (itemised in school fees)





Future Pathway

- Year 9 and 10 Food and Design
- Year 9 and 10 Food Techology
- Year 10 Hospitality (VET)



Stage 6 subject selection

- Preliminary and HSC Food Technology
- Hospitality (VET)



- Chef
- Dietitian
- Nutritionist
- Food Artist
- Food Scientist



Nailed It

Learn how to make things from timber

Discover

- Learn how to safely cut, join and shape wood using a range of hand and machine tools
- Learn about the characteristics and versatility of different types of wood

Create

- Your own wooden artefacts. They will include small boxes, bowls, toys and household utility and decorative pieces
- Make regular entries in a storyboard to document your projects' progression

Share

 Showcase your projects at our campus Open Day and information evenings. They will also be a great gift for someone special!

Parent Information

- Cost: \$50 (itemised in school fees)
- Students will visit local sites, businesses and exhbitions where timber is the focus





Future Pathway



Stage 6 subject selection

- Preliminary and HSC Industrial Technology (Timber/Metal)
- Preliminary and HSC
 Design and Technology



- Carpenter
- Wood Turner
- Cabinet Maker
- Builder
- Architect

Submit your choices

You are required to submit your elective preferences online for 2021. You can edit and change your choices as many times as you like from Friday 14 August through to the closing date of Thursday 27 August.

Instructions for submitting your elective preferences online:

 Go to the Callaghan College Waratah Campus website



Click on the blue Edval Sport and Subject Selection tab under 'Student Access'



- Enter your unique code which was emailed to your DoE student email address
- Select the button that applies to you (Year 8 Elective)

- Make your selection using the dropdown menu, including your reserve option in case you don't get your first choice.
- 6. Click 'submit'
- Print your selection submission for your records
- If you wish to swap X-Streams or apply for an X-Stream for the first time, you also need to complete and submit the application form on page 33 of this booklet.

Remember, if you need further assistance, please see Ms Rose or Ms Brown in Room their office.





FAQ's

What is the benefit staying in an X-Stream?

The benefit is you will be extended in an area of interest. You also get first choice of electives within this stream in future years of high school.

What is the difference between the X-Streams and Taster Elective streams?

X–Streams are designed to extend and deepen your learning in an established area of interest, whereas the Taster Electives (formally called PiPs) give you an introduction to a subject you may not have tried before. We encourage you to choose a Taster Elective if you prefer variety over specialising in a single area.

Can I apply for an X–Stream if I did a PiP in Year 7?

Yes. You can apply for an X–Stream for Year 8 but you will need to provide strong evidence for your established interest/talent in the subject area. You will also be required to complete a bridging course.

Can I swap streams for Year 8?

You are welcome to change to the Taster stream, but only under exceptional circumstances can you swap X-Streams. For the latter, you need to complete the application paperwork and provide strong reasons for the change. You will also be required to complete a bridging course.

Students who choose to remain in the same stream do not have to reapply for their X–Stream each year.

What if my application for an X-Stream is not successful?

If your X-Stream application is not accepted you will be contacted by our EXCEL Coordinator, Ms Rose to talk about your options

Can I swap electives in my stream for Year 8?

Yes! You can swap electives within your stream without having to provide any additional paperwork. Your teacher will support you if you need to 'catch-up' on any of the course material from the Year 7 elective.

What if I don't like my elective course?

If you don't like your elective, you can request to change by notiyfing your Year Advisor or our EXCEL Coordinator, Ms Rose by the end of Week 4 Term 1 of Year 8.

How will my learning be assessed in my EXCEL program?

Assessment strategies are no different from in your core subjects. Teachers will use a variety of assessment methods to monitor your learning progression of knowledge, skills and understanding delivered during the course. There's just a greater focus on showcasing or presenting your learning and assessing your progression in the development of future learning skills.

Who can I talk to if I need help to choose?

Talk to your Year 7 teachers and parents/carers in the first instance. If you still need help, please contact Ms Rose, EXCEL Coordinator on (02) 4968 1939.



Application Form

You can apply for a new X-Stream by completing this form. <u>Note:</u>
You only need to complete this form if you are applying for an
X-Stream for the first time or want to swap X-Streams for Year 8.

Step 1: Fill out your information
Student Name:
Current Year 7 Elective:
Parent/Carer Name:
Parent/Carer Signature:
Parent/Carer Email:
Parent/Carer Phone Number:
Step 2: Select your preferred X-Stream for Year 8:
CREATE-X QUEST-X SPORT-X STEM-X
Step 3: Please answer the following:
1. Why you want to be considered for a place in this X-Stream:
2. Please list any achievements, awards or other evidence that demonstrate your interest/talent in this X-Stream area (please include photocopies of these with your application):

"I'm continually impressed at how Callaghan College embraces new ways of learning in a meaningful way to help prepare students for the real world."

- Professor John Fischetti, Pro Vice-Chancellor Faculty of Education and Arts University of Newcastle

