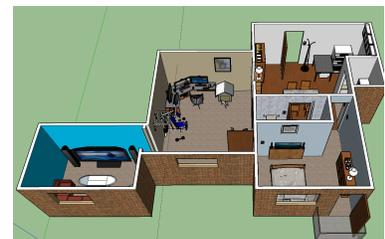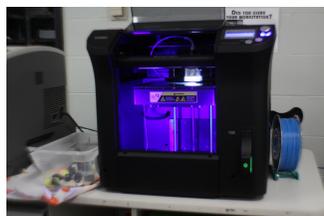# Technological Education at BCSS

Why take a Tech course at BCSS?

These courses allow you to gain practical, modern, hands-on experience. The skills you develop are ones that you can use, regardless of the education and career path you set for yourself. And while you are at BCSS, the knowledge and expertise gained from Tech courses can be used to enhance projects in other courses you will be taking.

Technology and the media touch all of our lives and our connection with them is only growing. In these fun and engaging courses, you will get to create, model, and see your ideas take shape. The teachers in the Tech department all have extensive industry experience, having worked professionally in areas such as marketing, advertising, web content creation, film, television and broadcasting. With our wealth of professional-world experience and industry connections, we will ensure you are gaining invaluable experience and insight into potential careers down the road.

What types of careers will I get to experience?

The careers that develop from these courses are many and cross all of the potential pathways you may choose to follow. These classes help you develop the skills to be a successful graphic designer, social media expert, YouTuber, online content creator, marketer, advertiser, director, producer, broadcaster, screenwriter, animator, camera operator, audio technician, architect, engineer, product developer, computer programmer, 3D-printing designer, app developer, software designer, video game designer and so much more.

Courses

Exploring Technologies   TIJ1O1

This is a great opportunity to try all technological education disciplines offered here at BCSS. It is a combination of Technological Design, Communications Technology and Computer Science. This course gives students a chance to complete projects in Technological Design (e.g., design & building challenges, architecture, engineering, 3D printing), Communications Technology (e.g., graphic design - using digital photography and Photoshop to design a sports player card, animation, video production, green screening and special effects), as well as Computer Science (e.g. coding, app development, gaming, etc.). We also learn about safety, the history of technology, the design process and other invaluable problem solving, time management and teamwork skills.

A student may take this course in either his/her grade 9 or 10 year.

CREDIT: 1   **TYPE:** Open   **GRADE:** 9

Communications Technology   TGJ2O1

This course introduces students to Communications Technology from a Media perspective. Students will work in the areas of film, TV and Internet video production, radio and audio production, graphic design, digital photography, and animation. Student projects may include hands-on activities such as filming and editing short films, creating YouTube and social media videos, shooting and Photoshopping digital photos, creating logos in Adobe Illustrator, making stop-motion animations, broadcasting, motion graphics and green screening / special effects videos. Students will also develop an awareness of environmental and societal issues related to communications technology and explore secondary and postsecondary education and training pathways and career opportunities in the various communications technology fields.

It is strongly recommended that students take this course before the 2 credit Colts TV course (TGV3M & TGV4M).

A student may take this course in either his/her grade 9 or 10 year.

CREDIT: 1   **TYPE:** Open   **GRADE:** 10

Technological Design   TDJ3M1

This course gives students the chance to design and build products using some of the most powerful and advanced software and hardware used in the industry. Students will research, design, build, and assess solutions that meet specific human needs, using working drawings and other communication methods to present their design ideas.

Students will develop an awareness of environmental, societal, and cultural issues related to technological design, as well as explore possible opportunities in the field. (i.e. engineering, architecture, urban planning, product design, etc).

With the help of computers, hands-on equipment, 3-D Printers and your own imagination, you will bring your models to life with real prototypes. Topics which may interest you include: Designing new sports equipment to prevent injury, creating your own custom remote control, building your dream home from the foundation up (in 3D) and more.

A student may take this course in either his/her grade 10 or 11 year.

CREDIT: 1   **TYPE:** University/College   **GRADE:** 11

Communications Technology   TGJ3M1

This course is for the student who either wants to continue his/her skills in broad-based communications technology or who has limited experience. It enables students to develop knowledge and skills in the areas of graphic design, digital photography, animation, radio and audio production, motion graphics/green screening and video production. Students will work both independently and as part of a production team to design and produce media products in a project-driven environment. Practical projects may include the making of logos and school T-shirts in Adobe Illustrator, shooting and editing digital sports photographs in Photoshop, creating YouTube and other social media video productions, animated commercials, radio and music segments, green screen videos, movie posters and movie trailers.

Students will also develop an awareness of related environmental and societal issues and explore secondary and postsecondary education and training pathways and career opportunities in the various communications technology fields.

No prerequisite required.

CREDIT: 1   **TYPE:** University/College   **GRADE:** 11

Communications Technology: Colts TV - Broadcasting and Film/Video Production (2 credit with TGV4M)   TGV3M1

This 2-credit course is specifically for the student who would like to enhance his/her skills in media, film/television production, sports broadcasting and broadcast journalism. Students will continue to develop knowledge and skills as they design and produce media projects for our school-based Colts TV show, in the areas of live, recorded and graphic communications.

These areas may include TV and Internet video, social media posts, broadcast journalism and movie production; green screening; radio and audio production; print and graphic communications; photography; digital imaging; and interactive new media. Students will also develop an awareness of related environmental and societal issues and explore college and university programs and career opportunities in the various communications technology fields.

A student may take this course in either his/her grade 11 or 12 year.

COURSE NOTE: This course is part of the 2-credit Colts TV program and must be combined with TGV4M1. There may be an application process for this program.

CREDIT: 1   **TYPE:** University/College   **GRADE:** 11

PREREQUISITE: TGJ2O1 - Communications Technology **or** TGJ3M1 - Communications Technology **or** TGJ4M1 - Communications Technology

COREQUISITES: If you take this course, you must also take TGV3M1 - Communications Technology: Colts TV - Broadcasting and Film/Video Production (2 credit with TGV4M)

Computer Science ICS3U1

This course introduces students to Computer Science. Students will work both independently and as part of a team to design computer software using industry-standard programming tools. Students will learn to apply the software development life-cycle model while creating products in the coding language of Java. They will then use this programming language to develop software and video games.

Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields.

A student may take this course in either his/her grade 10 or 11 year.

No prerequisite required.

CREDIT: 1 **TYPE:** University **GRADE:** 11

Technological Design TDJ4M1

This course enables students to further develop knowledge and skills in the areas of CAD (Computer-Aided Design) software, 3D printing, architectural design, product design and more. Students may work towards the development of portfolios for application to university/college in these diverse areas.

Students are encouraged to use their imagination to produce innovative and inspiring projects, using some of the most powerful and advanced software available.

Examples of student work may include creating custom model homes, innovative and inventive prototypes, new sports equipment to prevent injury, etc.

You will create one of a kind custom work, using state of the art technology to prepare you for the 21st century workforce. If your imagination is up for the challenge, the possibilities are endless.

COURSE NOTE: Students may purchase enhancement materials as offered through the course.

CREDIT: 1 **TYPE:** University/College **GRADE:** 12

PREREQUISITE: TDJ3M1 - Technological Design

Communications Technology TGJ4M1

This course enables students to further develop media knowledge and skills while creating products in a project-driven environment. Students will focus on film, TV and YouTube / social media video production, while incorporating skills developed in other areas, such as digital photography, graphic design, animation, green screen / special effects technology and audio production.

Students may work towards the development of portfolios for application to university/college in these areas, while gaining valuable insight into many industries related to media, communications, business and other evolving fields. Through field trips and guest speakers coming into the classroom, students will also expand their awareness of environmental and societal issues related to communications technology and will investigate career opportunities and challenges in a rapidly changing technological environment.

CREDIT: 1 **TYPE:** University/College **GRADE:** 12

PREREQUISITE (for TGJ4M): TGV3M1 - Communications Technology: Colts TV - Broadcasting and Film/Video Production (2 credit with TGV4M) **or** TGJ3M1 - Communications Technology **or** TGV4M1 - Communications Technology: Colts TV-Broadcasting and Film/Video Production (2 credit with TGV3M)

Communications Technology: Colts TV- Broadcasting and Film/Video Production (2 credit with TGV3M)   TGV4M1

This 2-credit course is specifically for the student who would like to enhance his/her skills in media, film/television production, sports broadcasting and broadcast journalism. Students will continue to develop knowledge and skills as they design and produce media projects for our school-based Colts TV show, in the areas of live, recorded and graphic communications.

These areas may include TV and Internet video, social media posts, broadcast journalism and movie production; green screening; radio and audio production; print and graphic communications; photography; digital imaging; and interactive new media.

Students will also develop an awareness of related environmental and societal issues and explore college and university programs and career opportunities in the various communications technology fields.

A student may take this course in either his/her grade 11 or 12 year.

COURSE NOTE: This course is part of the 2 credit Colts TV program and must be combined with TGV3M1. There may be an application process for this program.

CREDIT: 1   **TYPE:** University/College   **GRADE:** 12

PREREQUISITE: TGJ2O1 - Communications Technology **or** TGJ3M1 - Communications Technology **or** TGJ4M1 - Communications Technology

COREQUISITES: If you take this course, you must also take TGV3M1 - Communications Technology: Colts TV - Broadcasting and Film/Video Production (2 credit with TGV4M)

Computer Science   ICS4U1

This course enables students to further develop knowledge and skills in computer science. Students will use modular design principles to create complex and fully documented programs, according to industry standards. Student teams will manage a large software development project, from planning through to project review. Students will also analyse algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, areas of research in computer science, and careers in the field.

PREREQUISITE: ICS3U - Introduction to Computer Science, Grade 11, University Preparation

CREDIT: 1   **TYPE:** University   **GRADE:** 12

Feel free to contact Mr. Shultz for further information:

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for more info!