

Main title

A Future in Photography

Contents and Overview

A photographer is a person whose job is taking pictures. It could be of anything: people, landscapes, merchandise, and so on. They can use different types of professional cameras and equipment, depending on what it is they want to photograph. In modern society, most photographers use digital cameras instead of the traditional film cameras. Digital cameras capture images electronically, so the photographer can edit the image on a computer. It also allows images to be stored on portable memory devices, such as compact disks, memory cards, and flash drives.

General Career Info

Portrait Photographers: takes pictures of individuals or groups of people and usually work in their own studios. Photographers who specialize in weddings, religious ceremonies, or school photographs may work on location.

Commercial and Industrial Photographers: takes pictures of various subjects, such as buildings, models, merchandise, artifacts, and landscapes. These photographs, which frequently are taken on location, are used for a variety of purposes, including magazine covers and images to supplement analyses of engineering projects.

Aerial Photographers: travel in planes or helicopters to capture photographs of buildings and landscapes. They often use cameras with gyro-stabilizers to counteract the movement of the aircraft and ensure high-quality images.

Scientific Photographers: focus on the accurate visual representation of subjects and therefore limit the use of image manipulation software to clarify an image. Scientific photographs record scientific or medical data or phenomena. Scientific photographers typically use microscopes to photograph subjects.

News Photographers/Photojournalists: photograph people, places, and events for newspapers, journals, magazines, or television. In addition to taking still photos, photojournalists often work with digital video.

Fine Arts Photographers: sells their photographs as artwork. In addition to having technical knowledge of subjects such as lighting and the use of lenses, fine arts photographers need artistic talent and creativity. Most use traditional film instead of digital cameras.

University Photographers: serve as general photographers for academic institutions. They may be required to take portraits, document events, or take photographs for press releases. University photographers are found primarily in larger academic institutions, because smaller institutions often contract with freelancers to do their photography work.

Career Future Outlook and Demand

There are two main different types of photographer you can choose from. Salaried photography jobs, or self-employment. Here are some ways to tell the one from the other:

Artistic Control: Even the most independent photographers will have to consider their clients' needs, ideas and vision for a project if they want to make a living. However, as a self-employed photographer, you'll have more artistic control. You'll be able to accept the photography jobs that interest you and turn down the ones that don't. And because clients will choose to work with you based on your unique style, they may be more likely to allow you greater creative influence on a project.

Schedule: Self-employed photographers generally have more flexible hours than those in salaried photography jobs. They work toward meeting client deadlines on their own schedule. Salaried photographers are more likely to have a typical 40-hour week during regular business hours. This rule, however, doesn't apply to all photographers—photojournalists, for instance, often work all hours to capture images and stories as they occur.

Overhead Expenses: If you own your own photography business, you will have to provide and maintain your own equipment, rent studio and office space, and hire any necessary support staff—all of which can be major expenses. Salaried photographers on the other hand, will have access to company equipment, studio and office space, and support staff.

Customer Base: Self-employed photographers will have to learn to market themselves and find their own clients. A good photography portfolio is essential to this process.

One thing to look out for in the future demand of photography would be that the advances in digital photography have brought increased efficiency and affordability of professional photography enterprises. This eases entry into higher ranks, but also allows amateurs to more easily fulfill their own photography needs without resort to the services of professionals. Plus, demand from traditional print publications is declining. Because the increasingly image-centric Internet has become the focus of professional photographers, enabling freelancers to market their services and photographs directly to a growing audience.

[Career Post-Secondary Schooling Requirements](#)

There are a variety of photography courses offered by Ontario's colleges, each with a slightly different focus:

Creative and Applied Digital Photography: these programs examine how digital technology has changed the photography industry. Students will learn lighting techniques, colour and black and white photography production, and Photoshop, as well as studio techniques and how to produce high-end and location photography. Business skills will also be emphasized.

Photojournalism: a unique program that combines photography with journalism and writing. Students learn to tell stories not only with their writing but with their pictures as well. Students will learn reporting and news judgment skills on top of their studies in photography and camera operation.

Photo Arts: Photo arts programs focus on darkroom photography, as opposed to digital. They also examine the political and social issues that are reflected in photography through past decades. Students will spend time in the studio working to build a portfolio.

Ontario college photography programs offered at the certificate or diploma level typically require an Ontario Secondary School Diploma (OSSD) or equivalent. A grade 12 English credit may also be required. A basic knowledge of camera operation and some photography experience is highly recommended, and some programs may ask for a portfolio submission as part of the requirements. Overall, requirements for photographers vary by field and industry. Some may require only a high school diploma or equivalent, others may require additional training or an associate's or bachelor's degree. Photographers often start their careers as interns, assistants or related positions gaining experience as they learn their trade.

[Summarized Recent Career News Article](#)

A BBC news article was published on March 1st, about a bride who spoke too much about her issues with the photography at her wedding. She was ordered to pay \$115,000 in damages after unleashing an online attack against a wedding photographer. She spent almost a year posting disparaging comments about the services provided by photography company Amara Wedding. The judge found Ms Liao attacked the business owner's integrity "with all her might" and was motivated by malice. Ms Liao was disappointed with the quality of her pre-wedding pictures, she also said she felt that she had not been fairly treated. Amara Wedding began to suffer financially after she launched her online campaign. The owners closed the business in January 2017. But Amara Wedding still provided the makeup, hair, photography, flower and master of ceremony services as promised in the contract with the couple. A week later she posted apologies on Facebook, Weibo and other social media sites.

Ms Chan told CBC News:

"What I have lost has already gone, so I don't think anything can compensate that"

"I want to prove to people that they have to face any consequences when they say something on the internet."

[Related Grade 10 Course Information](#)

Course code: TGJ2O1

Learning: this course introduces students to communications technology from a media perspective. Students will work in the areas of TV/video and movie production, radio and audio production, print and graphic communications, photography, and interactive new media and animation. Student projects may include computer-based activities such as creating videos, editing photos, working with audio, cartooning, developing animations, and designing web pages. Students will also develop an awareness of environmental and societal issues related to communications technology, and will explore secondary and postsecondary education and training pathways and career opportunities in the various communications technology fields.

Preparation and Options

Education: the extent of the education needed for a career in photography depends upon the individual's goals. Good technical abilities, knowledge of equipment and vocational training or an associate's degree might suffice for some positions at the outset of a career. A Bachelor of Arts in Photography provides more options for a career and for advancement; bachelor's degrees typically include art, business, marketing and other courses to round out one's education. A polished portfolio, which is often a requirement for graduation, is another benefit of a bachelor's degree program.

Specialization: photographers can work in many different fields, so choosing a photography specialization while enrolled in school helps hone and develop unique photography techniques. Some specialization options include news photographer or photojournalist, fine arts photographer, commercial photographer and scientific photographer. News photographers take pictures of newsworthy events while fine arts photographers sell photographs as art. Commercial photographers use pictures in various media formats while scientific photographers take photographs used for scientific procedures.

Equipment: without the proper equipment, photographers cannot perform their work duties. While employers and some schools provide access to photography equipment, photographers typically obtain their own equipment in order to practice and familiarize themselves with the tools of this field. Cameras come in many different types, so researching cameras and tools beforehand is important prior to committing to a purchase. Two formats are available for cameras: film or digital. Additional tools like tripods, lenses filters and computer programs can assist with taking pictures.

Classes and Internships: photography courses cover technical aspects of handling cameras and taking photographs. Subjects covered in this coursework include applicable photograph techniques, photography history and photography theory. Specific areas of study for photographers are available such as advertising and commercial photography, wedding and portraiture photography, editorial and corporate photography, visual journalism, fine art photography or fashion photography. Obtaining practical work experience while enrolled in school also helps photographers prepare for this field. In addition to internships and related summer jobs, school newspapers, magazines, newsletters, yearbooks and clubs can provide opportunities to have photographs published or displayed.

Summary and Conclusion

Photography is a career filled with potential for anyone who has passion for the arts. There are so many opportunities with which style you are interested in, and nowadays becoming a photographer is made more available than ever. The demand is also quite high, since modern day culture revolves around social media and having a good *image* online. So if you want to be a photographer, don't be afraid to get out there! You just need be professional, creative, and hard-working. With those three qualities, there's no doubt in you becoming a popular photographer.

Sources

<http://www.myplan.com/careers/photographers/summary-27-4021.00.html>

<http://www.myplan.com/careers/photographers/articles-27-4021.00.html?art=2>

<https://www.allartschools.com/photography/outlook-photography-jobs/>

<http://work.chron.com/being-photographer-high-demand-22984.html>

<https://www.ontariocolleges.ca/en/programs/arts-and-culture/photography>

<http://www.bbc.com/news/world-us-canada-43234174>

https://study.com/education_requirements_for_a_photographer.html

Main title slide of your selected career

Career pathways: Computer programmer

Contents and overview slide

General career info

Career future outlook and demand

Career post secondary schooling requirements

Summarized recent career news article

Related grade 10 course information - course code, learning, projects, and instructors

Course outline

Flow chart showing course pathway for high school to prepare for that career

Current and future preparation and options

Summary and conclusion page

Source/reference page

General career info

The job of a computer programmer is to write, test, develop, and maintain computer programs. The programs they write are used in everything today such as cellphones, laptops, TVs, and many other electronic devices. Computers all around us are controlled solely by the coding within them, and that is designed and created by *computer programmer's*.

Career future outlook and demand

The Bureau of Labor Statistics (BLS) projects that employment specifically for computer programmers will decline 8% to 300,000 positions over the next decade as businesses outsource projects to less expensive contract workers overseas.

Career post secondary schooling requirements

To become a computer programmer there are no specific qualifications or certificates necessary. however companies will rarely hire a programmer who doesn't have *at least* a bachelor's degree in a computer related field. This type of degree can be acquired by taking a number of university courses such as Computer Science from the university of Toronto.

Summarized recent career news article

There's never going to be a time when everyone can program. There's a heck of a lot of people who have zero interest in ever being a developer. And that's a good thing too. Some people genuinely don't

enjoy programming. People who don't should spend their lives doing something else. But for the people that do, it will always be relevant to be a software engineer, and here are 11 specific reasons software engineering will never die:

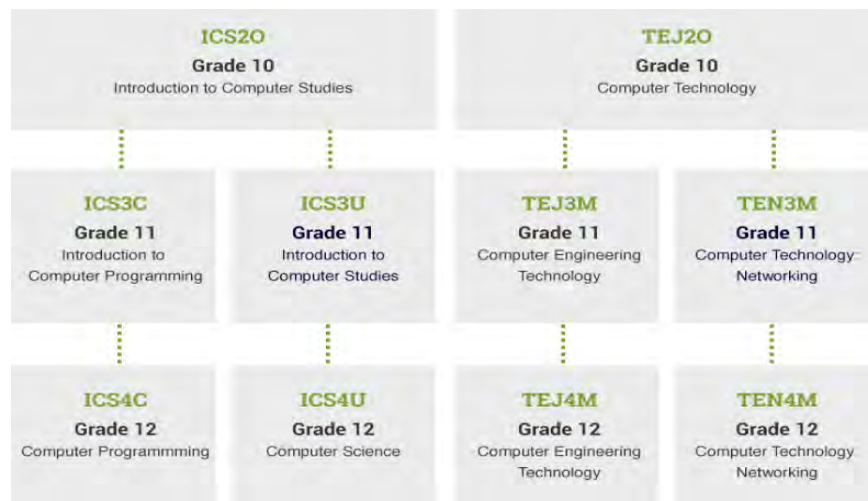
https://www.huffingtonpost.com/entry/11-reasons-why-computer-programming-will-always-be_us_59f105cce4b005e78233473c

Related grade 10 course information - course code, learning, projects, and instructors

The related course for this career is ICS20 and Mr. Wang is one of the three current instructors.

This course introduces students to computer programming. Students will plan and write simple computer programs by applying fundamental programming concepts and learn to create clear and maintainable internal documentation. They will also learn to manage a computer by studying hardware configurations, software selection, operating system functions, networking, and safe computing practices. Students will also investigate the social impact of computer technologies and develop an understanding of environmental and ethical issues related to the use of computers.

Flow chart showing course pathway for high school to prepare for that career



Current and future preparation and options

Current and future preparation and options include taking at least one ICS course per grade level and maybe a couple TEJ or TEN courses as well. And because computer programmers sometimes work with others in office environment, taking a few business courses would be helpful

Source/reference page

<http://www.wtcs.ca/technology/>

<https://www.fastcompany.com/3060883/why-coding-is-the-job-skill-of-the-future-for-everyone>

<http://www.tdsb.on.ca/Find-your/Schools/Course/schno/5625>

https://www.huffingtonpost.com/entry/11-reasons-why-computer-programming-will-always-be_us_59f105cce4b005e78233473c

Title page

Ideas:

- Same color different shades on the scale – blue, purple, (darker) red
- Title – off center; MECHANICAL ENGINEER (subtitle; is it for you)
- Gears + machinery in the background
- Lines under title
- White/light grey text

Contents overview

Three sides explaining the career, future outlook/demand, and post-secondary requirements

A recent news support article related to or about the career (summarized with link)

About the related grade 10 course; course code, what you will learn, projects complete, and current instructor(s)

Course outline of the grade 10 subject - first page

A high school course pathway flowchart

Career preparation and options students can do now till job hire

Summary and conclusion

References and sources

Explaining the career,

Anything that involves force, energy or motion involves mechanical engineering...

Mechanical engineering is a diverse subject that derives from the need to design and manufacture everything from small individual parts and devices (e.g., micro-scale sensors and inkjet printer nozzles) to large systems (e.g., spacecraft and machine tools). Mechanical engineers analyze their work using the principles of motion, energy, and force—ensuring that designs function perfectly, at a competitive cost.

The role of a mechanical engineer is to take a product from an idea to the marketplace. In order to accomplish this, a broad range of skills are needed. The mechanical engineer needs to acquire particular skills and knowledge. He/she needs to understand the forces and the thermal environment that a product, its parts, or its subsystems will encounter; to design them for functionality, aesthetics, and the ability to withstand the forces and the thermal environment they will be subjected to; and to determine the best way to manufacture them and ensure they will operate without failure. Perhaps the one skill that is the mechanical engineer's exclusive domain is the ability to analyze and design objects and systems with motion.

<http://me.columbia.edu/what-mechanical-engineering>
<http://www.mtu.edu/mechanical/engineering/>

Future outlook/demand,

Thousands of products and objects require mechanical engineering to shape the ideas into reality. Mechanical engineers find solutions and effect future healthcare, energy, transportation, world hunger, space exploration, climate change, and more.

A report done by CDI corp. reveals a high demand for mechanical engineers in Canada over the next decade. The need to fill jobs left empty by baby boomers is increasing, resulting in a forecasted 2,100 job openings appearing each year. The salaries are expected to increase as well (especially in western parts of Canada where there is a major economic activity shift).

As an increasing importance is placed on engineering [recruitment](#), more trained graduates will be needed to lead the industry into the next decade, with the report estimating that about 1,200 mechanical engineering graduates will be needed each year to fill open positions until 2019

IF YOU WANNA MAKE MONEY GO TO ALBERTA: the median annual pay for mechanical engineers in Alberta will be \$30,000 more than the salary for equivalent positions in the other provinces.

<http://www.cdicorp.com/report-reveals-demand-mechanical-engineers-canada/>

Post-secondary requirements

At a minimum you are required to have a bachelor's degree in mechanical engineering and earn some licensure (education, supervised work experience, several examinations). People are also expected to learn the basics of civil, electrical, and chemical engineering.

The University of Waterloo requires at least a 70% in required courses: The following Ontario 12 U courses and one other 12 U or 12 M course are required for all engineering programs:

- Advanced Functions (MHF4U)
- Calculus and Vectors (MCV4U)
- Chemistry (SCH4U)
- Physics (SPH4U)
- English (ENG4U)

https://study.com/mechanical_engineer.html

**A recent news support article related to or about the career
(summarized with link)**

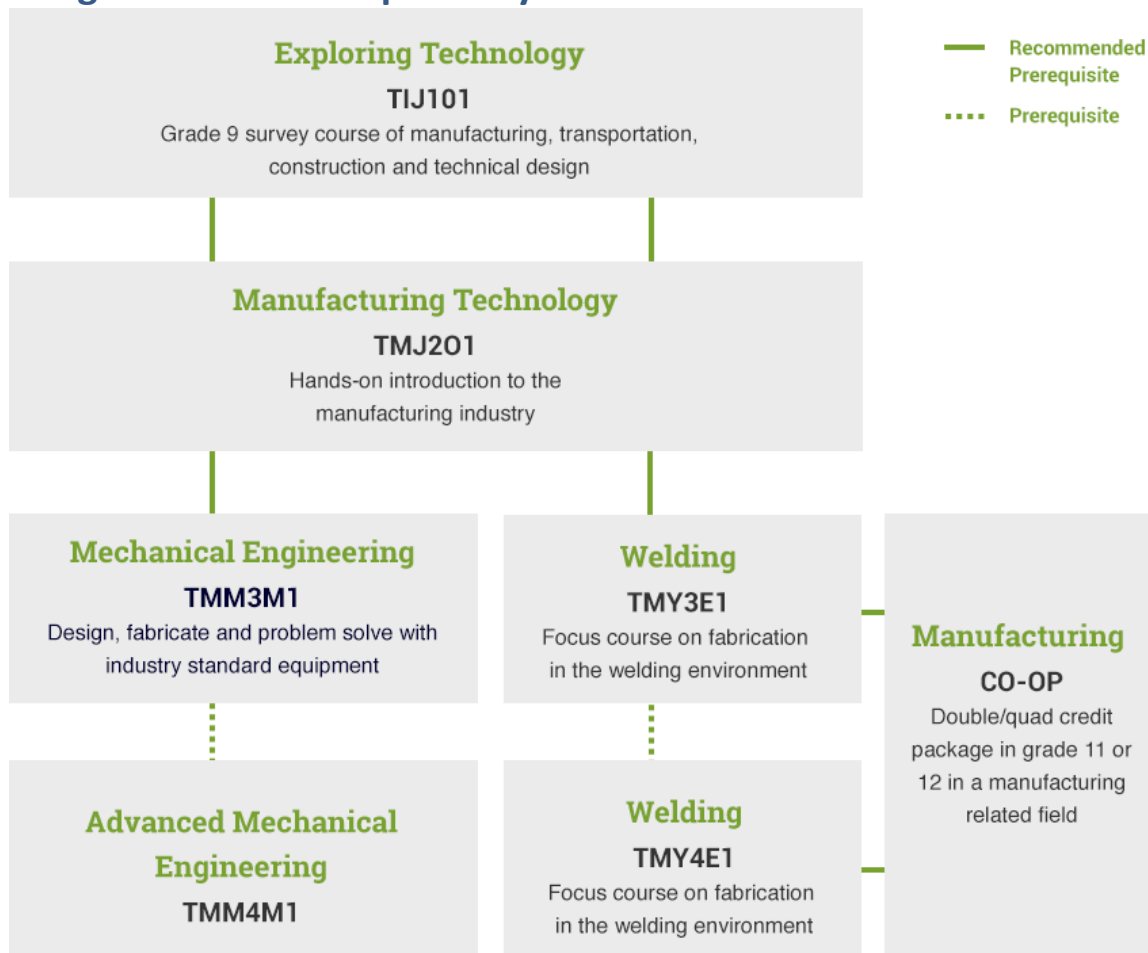
<http://www.news.gatech.edu/2018/02/26/next-frontier-mechanical-engineering>

**About the related grade 10 course; course code, what you will
learn, projects complete, and current instructor(s)**

Course outline of the grade 10 subject - first page

GOTTA FIND THE TEACHER

A high school course pathway flowchart



Career preparation and options students can do now till job hire

- Study the required courses
- Learn about related job opportunities in your area and trends for the demand of mechanical engineers
- Gather experience and work as an assistant to a fully trained and experienced mechanical engineer
- Take related engineering courses
- GET YOUR BACHELORS AT LEAST

Summary and conclusion

References and sources

