



2019 SAIT first-year journalism photography equipment requirements

April 29, 2019: The gear needed for the first year, and this document, will be revised in June ahead of the 2019-20 academic year. The overall requirements will be the same, but specific equipment recommendations will be updated to reflect newly released products as well as course curriculum changes.

To participate in the first-year photo courses within SAIT's journalism program, you will need to outfit yourself with camera equipment suited to the shooting of news, sports, journalistic portraits and more at an introductory level. **This document outlines the gear required.** It was last updated on **Wednesday, October 31, 2018.**

Equipment summary

The following equipment, *at minimum*, is required. Specific model recommendations for certain items follow on subsequent pages.

- **One Canon or Nikon digital SLR** with a resolution of 16 megapixels or higher, decent image quality at higher ISO (light sensitivity) settings, a frame rate of at least 4 frames per second (fps), support for both high speed flash sync and optical off-camera flash triggering plus video-capture capability
- **One Canon or Nikon wide angle-to-telephoto zoom lens**
- **One Canon or Nikon fixed focal length (non-zoom) lens** with a maximum aperture between f/1.4 and f/2.8
- **One Canon or Nikon external flash** with a tilt/swivel head, through-the-lens (TTL) flash exposure and off-camera control and triggering capability
- **One collapsible-type reflector** that's 22" or larger
- **One tripod** that's capable of being extended to at least 1.2 metres
- **One camera bag** large enough to comfortably hold the majority of your gear, even when a lens is attached to the camera body
- **Two 16GB or larger memory cards**
- **One portable hard drive** with a capacity of at least **2TB**
- **One lens cleaning cloth** and **one set of AA batteries** for your flash

Plan on acquiring the above equipment by Wednesday, January 9, 2019.

This textbook is required for your photo courses as well:

- ***Photojournalism: The Professionals' Approach, 7th Edition*** by Kenneth Kobré.

(You will need to purchase a handful of additional texts for other courses in the journalism program. Those textbooks aren't covered in this document.)

Finally, though not required for your first-year photo coursework, you will find it beneficial to have a handheld audio recorder for recording interviews. The recommended one is the **Zoom H1N Handy Recorder**. The previous generation H1 is acceptable too. Both Zoom models capture professional-quality audio and will therefore also serve you well when your multimedia training kicks off in earnest during the program's second year.

You will be issued an Apple 13-inch MacBook at the beginning of the fall semester. It will be loaded with the software required for all your journalism courses, including photo. The use of the supplied Mac and its software is both mandatory and to your benefit, since doing so will enable you to properly complete all assignments as well as receive setup and troubleshooting assistance from SAIT's tech support staff and your instructors.

Equipment in detail

This section provides more information about the camera, lenses and some of the accessories required for journalism's first-year photo courses.

You are required to come equipped with a digital SLR camera. The camera body, lenses and flash must be made by either Canon or Nikon. These two companies are among the dominant makers of camera equipment for professional photographers, both have a service program for post-secondary photography students that dramatically shortens the turnaround time and lowers the cost on repairs, SAIT journalism's no-charge lens loaner pool (which you will have access to starting in the second semester) is comprised exclusively of Canon and Nikon gear

and all in-class lessons will be based around Canon and Nikon systems. **Plus, they continue to make the most affordable camera equipment that's also capable of meeting the demands of first-year journalism.**

As a result, it's in your best interest to select gear from one of these two brands.

Digital SLR camera body options

As of this writing, the following current or recently discontinued digital SLR camera bodies are all able to record video, shoot at 4 fps or faster, produce pictures that are 16 megapixels or greater in resolution, deliver reasonable image quality at light sensitivities up to at least ISO 4000 and offer both high speed flash sync and optical off-camera flash triggering. As a result, they meet or exceed the program's minimum requirements:

Canon

Entry level: EOS Rebel T3i, T4i, T5i, T6i, T6s, T7i, 77D

Midrange: EOS 70D, 80D, 7D Mark II

Higher-end: 5D Mark III, 5D Mark IV, EOS-1D X, EOS-1D X Mark II (these cameras will require an extra-cost accessory to control and trigger an off-camera flash)

Nikon

Entry level: none

Midrange: D7100, D7200, D7500

Higher-end: D500, D610, D750, D4, D4S, D5 (some of these cameras will require an extra-cost accessory to control and trigger an off-camera flash)

If your budget dictates that you purchase an entry-level model, consider only cameras in Canon's Rebel series. Nikon's least-expensive digital SLRs, while fine cameras in many respects, are missing key flash features that you will be asked to use throughout your time in the SAIT journalism program, regardless of whether writing or photography will be your main focus.

Once you reach the midrange of each makers' digital SLR lineup, however, things tip in Nikon's favour. The **Nikon D7200** and earlier **D7100** both meet or exceed all

the minimum requirements, provide great value for the money and will enable you to shoot all your first-year assignments particularly well. **Canon's EOS 80D** is also a reasonable midrange choice, though it trails the D7200 in still-picture autofocus to a degree that makes the Nikon the better bet of the two.

In addition, the Nikon D7100, D7200 and Canon EOS 80D meet the minimum requirements for the program's second-year photojournalism stream, should you want to pursue that option. If you'd like to purchase gear that's *ideal* for second-year photo (as well as the first year), be sure to get in touch with photojournalism instructor Rob Galbraith ahead of your shopping trip. (Contact information is at the end of this document.)

If your photography ambitions – and budget – are bigger, then consider the **Canon EOS 5D Mark III, Canon EOS 5D Mark IV, Nikon D610 or Nikon D750**.

Note: The 5D Mark III and 5D Mark IV are among the higher-end cameras that do NOT have the ability to remotely adjust and fire an off-camera Canon flash, at least not without the purchase of additional equipment. If you're planning to buy either of these camera models, and/or you intend to outfit yourself with higher-end camera gear generally, definitely contact Rob Galbraith before you make a purchase.

The following current or recently discontinued camera bodies do NOT meet the minimum requirements specified above and must therefore be avoided:

Canon

EOS Rebel T3, T5, T6, T7, SL1 and SL2

Nikon

D3100, D3200, D3300, D3400,
D3500, D5100, D5200, D5300,
D5500, D5600

Note: Even though the older Canon EOS 6D and current EOS 6D Mark II do meet the minimum requirements for the program, neither camera is recommended. Their combination of features, performance and price makes each model inferior to other options in both Canon's and Nikon's lineups.

Wide angle-to-telephoto zoom lens options

Most entry-level digital SLR cameras can be purchased in a bundle with an 18-55mm f/3.5-5.6 lens. While this will provide you with a wide angle-to-telephoto zoom, and this lens is minimally acceptable for use during the program's first year, **both its zoom range and its optical quality will limit the kind and quality of pictures** you're able to make for your assignments.

As a result, it's recommended that you purchase the camera body by itself and then pair it with one of the zooms marked as *much better* in the columns below:

Canon

Acceptable

- EF-S 18-55mm (any version)

Much better

- EF-S 15-85mm f/3.5-5.6 IS USM
- EF-S 17-85mm f/4-5.6 IS USM
- EF-S 18-135mm f/3.5-5.6 IS USM
- EF-S 18-135mm f/3.5-5.6 IS STM
- EF-S 18-200mm f/3.5-5.6 IS

Nikon (Nikkor)

Acceptable

- AF-S DX Zoom 18-55mm (any version)
- AF-P DX Zoom 18-55mm (any version)

Much better

- AF-S DX 16-85mm f/3.5-5.6G ED VR
- AF-S DX 18-105mm f/3.5-5.6G ED VR
- AF-S DX 18-140mm f/3.5-5.6G ED VR
- AF-S DX 18-200mm f/3.5-5.6G ED VR II

Either of the **EF-S 18-135mm f/3.5-5.6** lenses will be the best overall choice for Canon shooters. The newer STM version is superior when recording video of moving subjects, but as that element of video capture won't be a significant part of your SAIT journalism training, and the older USM version is often available for less money, including in camera body + lens bundles, you can safely go with the USM variant of this lens unless moving-subject video capture is a personal priority for you.

The **AF-S DX 18-140mm f/3.5-5.6G ED VR** is recommended for those armed with a Nikon.

The list of recommended lenses assumes that your digital SLR is one of the entry level or midrange models in the previous section. None of these lenses is compatible with the majority of cameras marked *higher-end*.

Large-aperture fixed focal length (non-zoom) lens options

An affordable wide angle-to-telephoto zoom will enable you to photograph many of your first-year assignments. A significant minority of assignments, though, will require a lens that's tailored to low light and portrait work. This means, among other things, a non-zoom lens whose maximum aperture is between f/1.4 and f/2.8. (Don't worry if you're not sure what this means as it'll be covered in first semester.)

Choose from one of the following lenses:

Canon

Acceptable

- EF 50mm f/1.8 STM
- EF 50mm f/1.4 USM

Much better

- EF 40mm f/2.8 STM
- EF 85mm f/1.8 USM

Nikon (Nikkor)

Acceptable

- AF-S 50mm f/1.8G
- AF-S 50mm f/1.4G

Much better

- AF-S DX 35mm f/1.8G
- AF-S 85mm f/1.8G

Of these, the **EF 40mm f/2.8 STM** is recommended for Canon and the **AF-S DX 35mm f/1.8G** for Nikon. These two lenses have proven themselves to be great performers for first-year students.

As before, the list of suitable lenses assumes that your camera is one of the entry-level or midrange models described earlier. (That said, all but the AF-S DX 35mm f/1.8G are compatible with the higher-end digital SLRs too.)

Past students have experienced focus-related problems with the following lenses.

As a result, you'll want to avoid purchasing them:

Canon

- EF 50mm f/1.8, EF 50mm f/1.8 II

Nikon (Nikkor)

- AF-S 50mm f/1.8D

External flash options

Many of the assignments you will photograph in the first year will either benefit from or require that an external flash be employed to supplement the existing light. The flash you select must be the kind that slides onto the top of the camera, supports TTL flash exposure metering, optical off-camera triggering with TTL brightness control and has a head that can tilt straight up as well as swivel fully to the left and right.

While various companies produce external flashes that are meant to be compatible with Canon and Nikon cameras, **it's strongly recommended that you purchase only flash units actually made by Canon or Nikon.** Students who purchased other brands of flash in recent years, including ones from Godox/Strobepro, Metz, Nissin and Yongnuo, experienced both minor and not-so-minor problems with those units. Those who opted for Canon- and Nikon-branded units had a much easier time of it.

With that in mind, choose one of the following current or discontinued (but still fully compatible) flash units:

Canon

Bare minimum

- Speedlite 320EX

Much better

- Speedlite 430EX II
- Speedlite 430EX III-RT
- Speedlite 470EX-AI
- Speedlite 600EX-RT
- Speedlite 600EX II-RT

Nikon

Bare minimum

- Speedlight SB-500

Acceptable

- Speedlight SB-600
- Speedlight SB-800

Much better

- Speedlight SB-700
- Speedlight SB-910
- Speedlight SB-5000

The **Canon Speedlite 430EX II and 430EX III-RT** will do everything a Canon shooter needs in the first year of the program as well as both the second-year writing major and second-year photojournalism major. (The 430EX II is no longer

readily available. But if you can find one, and it's selling for less than the 430EX III-RT, buy it.)

Steer clear of the older Canon Speedlite 580EX II, which suffers from reliability problems.

The **Nikon Speedlight SB-700** is a great flash for the money. It has all the features Nikon shooters will need in the first year as well as both the second-year writing and photojournalism majors.

Note: you can't use a Canon flash on a Nikon camera, or vice versa.

Regardless of which flash you choose, remember to also get at least one set of batteries for it. Most take four AAs, either non-rechargeable alkaline or rechargeable NiMH.

Portable reflector options

An essential tool for brightening shadows outdoors, one that can also act as a surface to bounce off light from your flash, a collapsible reflector will get lots of use in the first semester and beyond.

Purchasing one of these – or an alternate that has the same characteristics – is required:

PhotoRepublik 22" Silver/White Reflector A small-diameter reflector that can easily fit into a backpack or shoulder bag. (PhotoRepublik is the house brand of The Camera Store in downtown Calgary.)

Strobepro 32" 5-in-1 Folding Reflector with Handles A medium-diameter reflector that comes with five different surfaces. This size of reflector is more useful than the smaller PhotoRepublik one mentioned above, but it's also more expensive and doesn't collapse as small for transport. (Strobepro products are available exclusively at the Calgary retailer of the same name.)

Tripod, memory cards and hard drive notes

A **sturdy tripod, capable of being raised to at least 1.2 metres**, is required.

Load yourself up with a minimum of two **16GB or larger memory cards**. It's strongly recommended that you **stick to a name brand such as SanDisk** to ensure long-term reliability, to minimize the chance of your cards being incompatible with your camera and so you can avail yourself of tech support should a problem arise.

If your camera accepts SD memory cards, then you will be able to use the card reader supplied with your SAIT-issued Mac laptop to offload pictures. If your camera takes another memory card type, such as CompactFlash or XQD, contact Rob Galbraith to discuss your reader options. (Contact information is at the end of this document.)

A portable hard drive will be an essential backup device, not only for your photos but for everything you create as a SAIT journalism student. **Choose a portable (sometimes called a 2.5-inch) external hard drive** that connects to a **Type-A USB 3 port** (so that it will be compatible with your SAIT Mac's included multi-port adapter), doesn't require an additional power supply to operate and provides a **basic level of protection against rough handling**. The capacity must be **2TB** or more.

Our primary recommendation is the **LaCie Rugged Mini**, in a capacity of 2TB (or 4TB if you see yourself in the photojournalism stream in the second year). This ruggedized hard drive will better withstand the daily transport and heavy use it'll see during your time in the journalism program and beyond. Plus, the Rugged Mini has served students well for several years. It's available both locally and online.

The going rate for a LaCie Rugged Mini seems to fluctuate. If, at the time you're ready to buy, it's pricier than you can manage, go with either the **Silicon Power A30** or the **Silicon Power A80**, in 2TB capacity. (Search for "Silicon Power A30" or "Silicon Power A80" on Amazon Canada to order, then choose the regular and not the Type C version.)



Silicon Power A80

It's unwise to purchase a non-ruggedized drive, as you put your pictures and video files at greater risk of loss. If, however, a ruggedized drive isn't an option for some reason, then look at standard portable drives such as the **Seagate Backup Plus Slim 2TB**.

If you do go the standard-drive route, be sure to get a protective carrying case that will hold the drive and its cable. Recommendations include the **Case Logic Portable EVA Hard Drive Case, model QHDC-101**, which you'll find at various retailers include Amazon Canada, or a decent-quality no-name case from an eBay reseller.

***Note:** In recent years, almost all of the drive problems experienced by students, including complete failures, have involved **Western Digital** non-ruggedized products. As a result, we're recommending that you **steer clear of this brand** in favour of the LaCie, Silicon Power and Seagate models listed above.*

Equipment FAQ

Q. What happens if I don't buy some of the required items?

You run the risk of not being able to complete some assignments and having certain submissions penalized or rejected. More importantly, you won't be able to make the

most of the opportunity to learn everything you can in your photography classes at SAIT.

Q. Where should I go shopping for camera equipment?

You're encouraged to begin developing a relationship with one of the specialty camera stores in town, as they tend to offer better service at similar prices to big box stores. Staff at the specialty stores are generally more knowledgeable, and more familiar with the requirements of SAIT journalism students specifically, than places such as Best Buy.

Calgary's three photo specialty stores are:

- The Camera Store
- Vistek
- Saneal Cameras

The photo department of London Drugs is also an option.

Q. Do I have to buy the required gear new or can I get it used?

As long as the camera body, lenses or other gear you're considering meet the minimum requirements for the program, by all means purchase used if you can.

Q. I intend to enter the writing and communications stream in the second year of the program. Will I need to buy a lot of additional photo equipment at that time?

No. Your second-year course work will involve plenty of photography, and video too. But the camera gear you purchase for the first year, as long as it adheres to the requirements set out in this document, will meet the needs of your second-year courses as well. At most, expect to have to purchase some inexpensive video-related accessories during the second-year writing major.

Q. I hope to pursue the photojournalism option in the second year of the program. Will I need to buy additional photo equipment at that time?

Yes. Your gear needs will amp up considerably. An information session will be held for those interested in the photojournalism major. The application process, expanded equipment requirements and why being a photojournalism major is awesome is covered at the session.

Q. Should I get insurance for my camera equipment?

Absolutely! It might be possible to insure the bulk of your newly acquired kit under a homeowner or tenant policy, either yours or your parents (if you live with them). Also, be sure to note down the serial numbers of each item, as well as capture a brief video clip of it all. This will be an important record of what you own.

Q. I've heard that both Canon and Nikon offer special programs for post-secondary photo students. Should I join the one offered by my chosen brand?

The answer is very likely yes. Both Canon Canada's **Student CPS** offering, and **NPS Campus** from Nikon Canada, provide several benefits, two of which are key: MUCH faster turnaround times in the event your gear needs to be repaired plus discounts on the purchase of certain cameras, lenses and flash units. The discounts can be significant.

- Canon's **Student CPS** is \$50 to join and runs for two calendar years from when you sign up.
- **NPS Campus** is free to join. Membership benefits will remain in place until the end of your time in SAIT journalism.

Search Google for information on each camera maker's program. Review the details carefully, to make sure the gear you intend to buy is either eligible for a discount, eligible for other benefits like faster repair times or both. (The Student CPS pages on the Canon Canada website have a list of discounted products and discount amounts. To see the current discounts for NPS Campus, do a search for "Nikon Canada Student Savings Program 2018" on Google.)

You should be able to join either Student CPS or NPS Campus once you've been accepted into SAIT journalism.

Q. I have gear questions. Who should I direct them to?

Email photojournalism instructor Rob Galbraith at rob.galbraith@sait.ca about anything related to the gear requirements. Please contact Canon and Nikon directly with queries about Student CPS and NPS Campus, respectively.