



# First-year journalism photo gear recommendations

Last updated Thursday, August 6, 2020

To participate in first-year photo courses within SAIT's journalism program, you must outfit yourself with camera equipment suited to the shooting of news, sports and journalistic portraits at an introductory level. **This document outlines the recommended gear**, including computer accessories that you will use in your photography coursework.

## Equipment summary

The following equipment, *at minimum*, is recommended. Specific model suggestions 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 high speed flash sync, optical off-camera flash control 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 flash for Canon or Nikon** with a tilt/swivel head, through-the-lens (TTL) flash exposure support and off-camera control 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 USB multi-port adapter and card reader**
- **One portable hard drive** with a capacity of at least 1TB
- **One lens cleaning cloth** and **one set of AA batteries** for your flash

**Purchase the equipment listed above by day two of the first semester.**

This textbook is needed for your photo courses as well:

- ***Photojournalism: The Professionals' Approach, 7<sup>th</sup> Edition*** by Kenneth Kobre.

(You will be asked to purchase a handful of additional books for other courses in the journalism program. Those are not covered in this document.)

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

## Equipment in detail

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

**It's recommended that you come equipped with a digital SLR camera body, plus lenses and flash, made by either Canon or Nikon.** These two companies are among the dominant makers of camera equipment in the hands of professional photographers today, both have a service program for post-secondary photography students that dramatically shortens the turnaround time and lowers the cost of repairs, SAIT journalism's no-charge lens loaner pool (which students typically have access to starting in the second semester) is comprised mainly of Canon and Nikon gear and the majority of in-class lessons will be based around Canon and Nikon systems. **Plus, they 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.

***Note:** As of this writing, we can't quite recommend a mirrorless camera system for first-year use, from any of the major manufacturers, because none we've evaluated has the set of features needed to complete all first-year assignments AND is also within the typical budget of first-year students. The Sony  $\alpha$ 6100 is almost there, thanks to its incredible autofocus, but it lacks a key*

*flash feature (optical off-camera control and triggering), its body design makes it frustratingly slow to work with in fast-moving situations (which can lead to missed pictures) and it's more costly – with appropriate lenses – than most of the other first-year options. Similar caveats apply to Nikon's mirrorless Z 50: it's quite good overall, but its autofocus isn't as capable as the Nikon D7500 – the nearest digital SLR equivalent – plus the Z 50 is missing optical off-camera control and triggering too.*

*If you're considering the photojournalism major for the program's second year, and you have more money to spend at the start of your time as a journalism student, then mirrorless becomes the preferred choice, especially for those who are eyeing Sony or Canon. Please see the photojournalism major gear recommendations document for more information. That's available for download from [saitphoto.ca](http://saitphoto.ca).*

## Digital SLR camera body options

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 program minimums:

### Canon

**Entry level:** EOS Rebel T3i, T4i, T5i, T6i, T6s, T7i, 77D, T8i

**Midrange:** EOS 70D, 80D, 90D, 7D Mark II

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

### Nikon

**Entry level:** none

**Midrange:** D7100, D7200, D7500

**Higher-end:** D500, D610, D750, D780, D4, D4S, D5 (some of these cameras will require an extra-cost accessory to control an off-camera flash)

If your budget dictates that you purchase an entry-level model, consider only cameras in Canon's Rebel series, with the Canon EOS Rebel T7i or T8i being a great way to go. Nikon's least-expensive digital SLRs, while fine cameras in many respects, are missing two key

flash features that you will be asked to use throughout your time in the SAIT journalism program, regardless of whether writing or photography is your main focus.

Once you reach the midrange of each makers' digital SLR lineup, however, things tip in Nikon's favour. The **Nikon D7500** and earlier **D7200** both meet or exceed all the minimum recommendations, provide superb value for the money and will enable you to shoot all your first-year assignments particularly well. **Canon's EOS 80D**, as well as its successor the **EOS 90D**, are reasonable midrange choices, though both trail the D7500 and D7200 in still-picture autofocus performance to a degree that makes Nikon the better bet of the two brands for SAIT journalism. Additionally, the D7500 produces better quality pictures in lower light conditions than the D7200, 80D or 90D.

The Nikon D7200, D7500, Canon EOS 80D and EOS 90D meet program minimums for the program's second-year photojournalism stream, should you want to pursue that option (though, increasingly, students who see themselves in the photojournalism major will be encouraged to move towards appropriate mirrorless camera options leading into the program's second year).

**The following current or recently discontinued camera bodies lack one or more important flash-related features and are therefore NOT recommended:**

#### Canon

EOS Rebel T3, T5, T6, T7, SL1, SL2 and SL3

#### 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 most of the minimums for the program, neither camera is recommended. Their combination of features, performance and typical 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 plus one of the zooms marked as *much better* in the columns below:

### Canon

#### Barely acceptable

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

#### Much better

- EF-S 15-85mm f/3.5-5.6 IS USM
- EF-S 17-85mm f4-5.6 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)

#### Barely 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.

*Note: the list of recommended lenses assumes that your digital SLR is one of the entry-level or midrange models in the previous section.*

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

An affordable wide angle-to-telephoto zoom will be what you need to photograph the majority of your first-year assignments. An important 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 f-number 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 fixed focal length 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.)

Students have experienced focusing 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

## Canon and Nikon 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 room light or sunlight. The flash you select must be the kind that slides onto the top of the camera, supports through-the-lens (TTL) flash exposure metering, optical off-camera triggering (also 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 third-party companies produce external flashes that purport to be compatible with Canon and Nikon cameras, each one we've tried falls short in the area of through-the-lens (TTL) flash exposure correctness and consistency. Canon's and Nikon's own flash units work the best in this regard.

**Therefore, you're encouraged to purchase only flash units actually made by Canon or Nikon.** Students who've purchased other brands of flash in recent years, including Metz, Nissin and Yongnuo, have experienced at-times significant TTL-related problems with those units, and TTL mode is how flash will be used exclusively in first year. Those who opted for Canon- and Nikon-branded units have had a much better experience.

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 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

**Note:** The flash models above require AA batteries, purchased separately, to function. Most require four AAs.

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 long gone from most store shelves. But if you can find one, and it's selling for less than the 430EX III-RT, buy it.)

***Note:** The Canon Speedlite 470EX-AI does have the necessary capabilities but is also overly bulky and – unless on sale – somewhat costly, particularly when compared to the Speedlites mentioned in the previous paragraph. As a result, **the 470EX-AI is not recommended.***

Despite its age, the **Nikon Speedlight SB-700** remains a really good flash for the money. It has all the features Nikon shooters will need in the first year as well as the second-year writing and photojournalism majors.

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

### Flash options on a tighter budget

As mentioned, getting a Canon flash for a Canon camera, or a Nikon flash for a Nikon camera, is the smartest way to go. That said, if you're willing to risk some amount of flash exposure error in TTL, you can generally save money, or get a higher-specification flash for your money, by choosing a third-party unit.

The only third-party brand you should look at is Godox (also sold locally under the Strobepro brand name), as it's the only independent maker of shoe-mount flash equipment delivering a level of manufacturing quality and performance we feel comfortable recommending.

That said, even Godox/Strobepro flashes suffer from a certain amount of TTL-related flash weirdness when coupled with most, though not all, Canon, Nikon (and Sony) bodies we've tested. So, **you can expect a Godox/Strobepro flash to work okay overall, but not**

as well as it should, or as well as Canon's or Nikon's own flashes, when operating in TTL mode. If you're going to go with a third-party flash, though, make it Godox/Strobepro.

The list of suitable flashes is below. Both the Godox and, where applicable, Strobepro product names are listed. In each instance, the **Godox and the Strobepro are the identical product**, the only difference is the name stamped on the outside.

The power source, either AA batteries (which must be bought separately) or included rechargeable lithium pack, is noted in brackets.

### Godox/Strobepro shoe-mount flashes with required features

#### Minimum

- Godox TT350/Strobepro X35 (2 x AA batteries)
- Godox V350/Strobepro X35 Lithium (lithium pack)

#### Much Better

- Godox TT685/Strobepro X60 with TTL (4 x AA batteries)
- Godox V860 II/Strobepro X60 Lithium (lithium pack)

#### Deluxe

- Godox V1 (lithium pack)

**Note:** All of these flashes are available in versions specific to Canon or Nikon (or other camera brands). Be sure to purchase the version – C for Canon or N for Nikon – that's compatible with your camera system.

**Also note:** If the flash comes in both AA and lithium variants, get the lithium one if you can. Though more expensive, the flash-performance payoff is worth it in all instances.

### Batteries for external flash

**All Canon- and Nikon-brand flashes, as well as certain models from Godox/Strobepro, require AA batteries.** Most take either two or four AAs, either non-rechargeable alkaline or rechargeable nickel metal hydride (NiMH). Flashes that use AAs don't usually include them, so plan on purchasing a set separately.

NiMH AA batteries, though more expensive, will quickly save you a lot of money compared to purchasing multiple sets of non-rechargeable AA alkalines to keep your flash powered over time. Plus, some NiMH batteries, including the specific ones listed below, enable the flash to fire again MUCH sooner than alkalines (or lower-cost NiMH for that matter). The flash performance difference between the best NiMH and everything else is significant. The result is more exposures in which the flash fires properly, giving you greater opportunity to capture successful pictures.

**You'll quickly appreciate, as you start to work with flash, the benefits that come from using the right rechargeables to power a Canon, Nikon or other brand of flash that takes AAs.**

The following NiMH AA rechargeables are recommended, as all have been tested to provide excellent performance:

- **IKEA LADDA 2450** (in the white battery casing, not the brown)
- **Energizer Recharge Power Plus** (the flash-friendly version of this battery says "Power Plus" on the product packaging and "2300 mAh" on the cells themselves)
- **Panasonic Eneloop Pro** (which can be bought in a bundle with an excellent charger)

You'll need a charger too. Any NiMH-compatible charger will do, though if you spend more on a charger you generally get one that charges more batteries simultaneously and completes the charging process faster.

### **Portable reflector options**

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

You're encouraged to purchase one of the following, or an alternate that has the same characteristics:

- **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 and memory card notes

A **sturdy tripod, capable of being extended to at least 1.2 metres**, is recommended. You can choose one of the many cheap options available, as most provide okay stability for occasional use as long as they aren't raised too high. To get yourself properly equipped for the first year, though, an entry-level travel tripod such as the **Vanguard VEO 235AB (aluminum model with the TBH-50 ball head)** will serve you well and is a bargain for a tripod of this quality.

Load yourself up with at least 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.

### Multi-port adapter and card reader

It will be necessary to connect to your computer a portable hard drive, AC power, Ethernet and, in many instances, a memory card reader, sometimes simultaneously. With that in mind, you will need to obtain the right accessory or accessories for your computer that enable you to do that.

As an example: if your computer is a current or recent Mac laptop, then it will have Thunderbolt 3 ports that use a USB-C-style connector. The following adapter will supplement the computer with the necessary ports to attach a portable drive, Ethernet and power at the same time, plus the adapter itself incorporates an SD card reader:

- **Anker USB C Hub Adapter, PowerExpand+ 7-in-1 USB C Hub, with 4K USB C to HDMI, 60W Power Delivery, 1Gbps Ethernet, 2 USB 3.0 Ports, SD and microSD Card Readers** If the computer you'll plug the adapter into has either Thunderbolt 3 or USB ports (using a USB-C-style connector in each case) then this is adapter is highly recommended. It's available from several sources, including Amazon Canada.

**Note:** Our testing of a variety of USB-C adapters since 2018 suggests there's a lot of unreliable junk out there. By comparison, the Anker unit above, as well models from Hootoo, have proven themselves both functional and durable.

### Portable hard drive options

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 USB port on either the computer or multi-port adapter. Be sure to purchase a drive that doesn't require an additional power supply to operate and includes a cable with a USB connector, either USB-A or USB-C, that's compatible with the adapter's and/or computer's ports. Plus, it's a good idea to select one that provides a **basic level of protection against rough handling**.

The capacity must be **1TB** or more.

Our primary recommendation is the **LaCie Rugged Mini**, in a capacity of 1TB. 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.

It's better to avoid the purchase of a non-ruggedized drive, as you put your backup 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 1TB**.

If you do go the standard-drive route, be sure to get a protective carrying case that will hold the drive and its cable(s).

***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 and Seagate models listed above.*

## Equipment FAQ

### **Q. What happens if I don't buy some of the recommended 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 within SAIT journalism.

### **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 needs of SAIT journalism students specifically, than places such as Best Buy or Costco.

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 gear new or can I get it used?**

As long as the camera body, lenses or other gear you're considering will meet your needs 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 minimums set out in this document, will meet the needs of your second-year courses as well. At most, expect to purchase some inexpensive video accessories during the second-year writing major.

**Q. I intend 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, as you put yourself on a path to becoming a professional photographer.

**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. (If you're interested in getting dedicated gear coverage, typical of what a working pro would have, check out Canadian broker Front Row insurance.)

**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. To see the discounts available to Student CPS members, search for "**Canon Canada Student CPS purchase discount**" on Google.

- Nikon's **NPS Campus** is free to join. Membership benefits can remain in place until the end of your time in SAIT journalism. To see the NPS Campus discounts, search for "**Nikon Canada Student Savings Program**" on Google.

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