Overview

To enjoy the clean air, peacefulness, and the sounds and smells of nature, this course provides you with information on how visually impaired people move about and navigate rural areas, from forests to hills, and even along waterways. The course presents methods and techniques for enjoying a wide range of outdoor activities, as well as gaining healthful exercise at the same time. It is designed for blind individuals, their sighted guides, and those who organize and lead outings.

Although no prerequisite courses are needed to enroll, the course has been prepared with the assumption that people who are blind or visually impaired have received basic training in orientation and mobility, using the cane and the sighted guide (and the dog guide, if applicable). It is also assumed that the student’s hearing has been tested and determined adequate for hearing traffic sounds.

In Lesson 1, you focus on walking along and
crossing roads using a cane or dog guide. Lesson 2 reviews cane techniques and applies them to a variety of walking situations, such as paved and dirt roads, paths, and winter weather. Other outings, such as walking with a sighted guide, group walking, hiking, and camping, are covered in Lesson 3. Lesson 4 suggests other enjoyable outdoor activities, namely tandem bicycling, canoeing and rowing, and finally cross-country skiing.

To complete the course, you will need the materials provided by The Hadley School for the Blind, as well as writing materials in the medium of your choice. If you are taking the audiostream version of this course, you will also need your own tape recorder. For your convenience, each cassette is tone-indexed. When fast-forwarding or rewinding, new lessons are identified by double tones, while assignments are readily identified with a single tone.

This course is offered for your own enjoyment and recreational pleasure, and no credit will be offered
upon completion. Assignments designed to measure your ability to implement some of the techniques presented in each lesson are included. As you complete each assignment, mail it to your instructor at:

The Hadley School for the Blind

700 Elm Street

Winnetka, IL 60093-0299

If you are blind or visually impaired, assignments in large print, audiocassette, braille, and on computer disk can be mailed in an envelope labeled “Free Matter for the Blind.” If you are sighted, your assignments require adequate postage. If you prefer to fax your assignments, use the cover page included with the cover letter. If you would rather send your assignments electronically, contact your instructor for an e-mail address.
Tandem Bicycling

In tandem bicycling, the person who is blind or visually impaired sits in the rear position, holds onto the handlebars, and pedals. The sighted guide pedals in the front position and controls the movement of the bicycle. The guide is sometimes called the front-ender or pilot and you the back-ender or stoker.

Bicycle Built for Two

Tandem bicycles have traditionally been designed for male-female couples—the man, generally bigger and stronger than his companion, riding in the front and manning the controls, and the woman riding in the rear. Therefore, some tandem bicycles have a horizontal bar in front so that the front-ender must lift his leg over the bicycle to get on and off it, while the rear position has a slanting horizontal bar. Other models of tandem bicycles have the
horizontal bar both in the front and rear. The most versatile bicycle is the unisex model, having a slanting bar both in the front and rear, which you and your guide can easily put your foot over. Unless you bicycle only on relatively flat terrain, your tandem bicycle should have gears to ease the amount of power you must apply for hills. Ten speeds or more are preferable, with more gears desirable for steeper grades.

With some tandem bicycles, the height of the handlebars cannot be changed, or they can only be raised and lowered together. Ideally, the two handlebars and the two seats should be adjustable independent of one another. For efficient pedaling, it is recommended that the handlebars be at about the same level as the seat. For maximum efficiency, the seat should be high enough so that when you are seated, the ball of your foot is on the pedal in the low position with your leg almost straight. Nevertheless, for tandem bicycling, it is easier for you and your guide to have your seats lower so that when you are seated your foot will reach the ground. You should not have to tilt the
bicycle sideways to reach the ground.

**Gearing Up to Cycle**

Wearing helmets is recommended. Bicycle helmets are lightweight, inexpensive, and protect against serious head injuries. They are designed so that your ears are not covered and auditory cues are not distorted. Use your head and wear a helmet! Sunglasses or other eyegear are a good idea to protect your eyes from leaves and bugs. Wear sneakers or other lightweight shoes when you cycle. If you wear long pants, protect your right pant leg from contact with the gear and chain mechanism by rolling it up or wearing a clip.

Before you and your guide start bicycling, it is best to check the air pressure in your tires with a gauge and, if needed, add air to them with a pump. If the handlebars and seats are not at the proper height, you can help your guide adjust them with a wrench. When your tandem bicycle needs other maintenance, such as cleaning and lubrication, you can help with that work also. Your bicycle should carry, usually in a pouch attached to the seat, one
or two wrenches, a tire pressure gauge, and tire irons and a spare tube for changing a tire. To repair a leak in a tire tube, a tire patch kit is required. Your bicycle may carry a tire pump affixed to the frame. Water bottles can also be fixed onto the frame. If the bicycle will be left unattended in a place where it could be stolen, carry a lock capable of attaching the bicycle frame to a fixed object, such as a post. If a fixed object is not available, you can immobilize the rear wheel by locking it to the frame, though this is less secure.

Rolling Down the Road

You and your guide should get on and off your bicycle on the same side, normally the left side. The best way to start off is for each of you to be seated with your left foot on the ground. Your right foot is on the right pedal, which is in the up position and slightly forward. Before getting on the bicycle, you can put the pedals in that position by moving the bicycle or the pedals backwards. To start off from your seated position, at the signal of your guide each of you push down on your right pedal and push off from the ground with your left
foot. Gather momentum by pedaling strongly with both feet. To stop, follow your guide’s verbal cues. Hand brakes are usually on the front handlebars only. Stop with the right pedals in the low position, with each of you putting your left foot on the ground.

If you and your guide have your seats in a high position, you will not be able to start off while seated. Each of you must start off straddling the bicycle with your left foot on the ground, and your right foot on the right pedal in the upward position. Then rise together to push down on the pedals and sit on the seat. When you come to a stop, you each rise forward from your seat, supported by your right foot on the pedal in the low position, and then lower yourself to place your left foot on the ground. This procedure is, of course, more difficult than starting and stopping when seated. Practice with your partner will develop a rhythm, and it will be easier as you get used to each other.

Having a taller, heavier person in front provides greater cycling stability. What is more important,
however, is that your guide be a competent cyclist, and that you both apply pedaling power proportionate to your respective weights. The front and rear pedals turn together, so that if one cyclist eases up on the pedals, it puts a heavier burden on the other. You should apply the ball of your foot, rather than the instep, to the pedal.

While riding a tandem bicycle, the guide steers and operates the brakes and the gears. He sets the pedaling rate, when to pedal faster or slower, and when to stop and resume pedaling. Whether or not he tells you of these changes, you will feel them with your feet. Your guide tells you when he is going to shift gears so that each of you will ease up on the pedaling while he shifts, although you do not stop altogether. He can tell you when you are starting uphill and downhill. He tells you when he is going to turn right or left, and then you or he gives the appropriate hand signal by extending the left arm. When necessary, he calls out to warn any persons in the path of the bicycle. He will warn you of any obstacles to duck under, such as projecting branches. You should not rise from your
seat to apply extra pedaling power for pumping uphill. If you lose control of your pedals, inform your guide so that he may hold the pedals level while your feet regain their proper position. When you and your guide are walking beside your bicycle, which will normally be on your right, he holds the front handlebars, and you hold the rear of your bicycle seat with your adjacent hand so that you avoid walking on his heels.

Tandem bicycling is more enjoyable along paths and country roads where there is little motor traffic. Bicycle along the right edge of roads, as much out of the way of traffic as possible. Bicycles are subject to traffic regulations, so obey traffic lights and road signs. Your riding surface should be as firm and smooth as possible, without loose materials, such as sand, dirt, or stones. While riding, your guide can inform you of your surroundings and points of interest which you pass.

**Group Bicycling**

You may have the occasion to go bicycling with an
organized group of cyclists who are sighted, blind, and visually impaired on tandems. The sighted leader rides in the front of the group. He plans the route, designates the lunch site if there is to be one, and ensures that any necessary supplies and equipment are carried. A designated sighted person also rides at the rear of the group. The latter allows no bicycle to get behind him during the trip, and he helps resolve any problems affecting cyclists in front of him. Each cyclist should know the route and the location of the lunch site, if any. He may be provided with a map of the route, which for immediate reference can be kept in a holder affixed to the handlebars.

The pairs of cyclists may get spread out for some distance and not always remain within sight of one another. When making a turn onto another road, it is a good idea for each pair to wait at the turn until the next bicycle behind is clearly in view. The leader should stop at convenient points to ensure that all the bicycles catch up and to attend to any problems that may have arisen. There is less need for the leader to do this if a motor vehicle cruises
the route during the trip, giving assistance to any cyclists who may need it and carrying the group’s lunch supplies. For inexperienced cyclists, a trip limited to a morning or afternoon is advisable.

An overnight group bicycle trip should be undertaken only by well-conditioned, experienced cyclists. Unless a vehicle is to carry what the group needs for its overnight stay, the bicycles will be more heavily laden than for a day trip. Keep in mind that the amount each tandem cyclist can safely carry in panniers, bags, and racks is much less than what a single cyclist can carry on his bicycle. For a stay at a campground, a vehicle should carry the group’s camping supplies and equipment. Without a vehicle, participants carry their personal belongings on their bicycles and stay at lodgings which provide sleeping accommodations and meals. Youth hostels provide such lodgings. Occasionally you must bring your own food, which can be prepared with equipment at the hostel. During overnight stays, the group should operate in cooperating pairs of persons who are blind or visually impaired and persons who are
Canoeing

Paddling in the bow of a canoe, which is the front end, requires little skill, although you need a sense of balance, particularly for getting in and out of the canoe. Your sighted guide paddles in the stern, which is the rear of the canoe, and he controls the direction and movement of the canoe. He should be an experienced canoeist. For the proper balance and maneuverability of the canoe, he should weigh at least as much as you. If you are heavier than he is, balance can be established by a third person sitting as near the stern as convenient or by placing heavy objects there.

The length of your paddle should be about chin high. You and your canoeing partner should each have a life jacket or flotation device. If you want to sit on it in the canoe, tie it to your belt loop with a short string so that the device is handy if the canoe capsizes.

Wear canvas-type shoes with rubber soles or aqua socks. You should know how to swim and what to
do in case the canoe swamps or capsizes. Paddling is normally done in a seated position. For greater stability, you can lower your center of gravity by paddling in a half-seated, half-kneeling position. For kneeling comfort, kneel on a cushion or article of clothing. The half-kneeling position is especially good for paddling in rough water, assuming your guide finds it safe to canoe under such conditions. Your guide in the stern should know the various paddling strokes and when to apply them. While you in the bow will do mostly straight paddling, it will be useful for you to know the draw, pry, and sweep strokes and how to back-paddle. For steady movement, you and your guide should normally paddle on opposite sides, and he should synchronize his strokes with yours. He instructs you to start or stop paddling, to paddle at a faster or slower pace, to paddle on the other side, or to push your paddle against the bottom to help back the canoe off the shore or a shallow place. If the guide wants the canoe to turn sharply right or left, or to move laterally right or left, he can say so and leave it to you to apply the proper stroke. He should then tell you when to resume normal
paddling. Using the proper stroke effectively, you need not change paddling sides to help turn the canoe in either direction.

Your guide warns you to duck in case of obstacles which might hit you, such as a low bridge or branches projecting from the shore. At your guide’s suggestion, you may have to get out of the canoe into shallow water to help dislodge it from the bottom or from rocks or plants. You may, of course, go barefoot in the water. But if the bottom is rough, wear your shoes without your socks. Do not lose physical contact with your canoe during this procedure.

If you are an adept canoeist, especially if you had canoeing experience and then lost your sight, you might wish to try paddling stern while your guide paddles bow. This puts the burden on him to give you what might have to be frequent instructions on the direction and movement of the canoe. Areas with obstacles, such as rocks, submerged logs, and narrow places, ought to be avoided. If you and your sighted guide believe that you need some
improvement in your paddling, an experienced paddler can observe from a nearby canoe and give you helpful instructions.

For a relaxed and enjoyable canoeing experience, do not feel obliged to paddle continuously, especially since your guide can control the canoe’s direction from the stern without your paddling. Your guide can tell you about surrounding points of interest while limiting his paddling instructions to those necessary.

Generally keep to flat-water canoeing on ponds, lakes, and rivers. Any white-water canoeing you undertake should be limited to short stretches of moderate rapids.

**Getting In and Out from a Dock**

To get into the bow position when the canoe is parallel to a dock or land, sit on the dock or land, and place your feet on the bottom of the canoe in front of the bow seat. Then hold the sides of the canoe with your hands and move onto the seat. Before getting into the canoe, leave your paddle on the dock within reach or lean it against the bow
seat out of the way. A person on the dock can hold the canoe against it while you and your stern paddler get in. Without a third person, your stern paddler should hold the canoe for you. Once you are seated in the canoe, hold onto the dock as he gets in after you.

To get out of the canoe, hold it against the dock as your partner gets out before you. When you get out of the canoe, step onto the dock, preferably holding on to someone for support, which may be the shoulder of your stern paddler while he is crouched down holding the canoe. For added balance, hold your paddle erect on the bottom of the canoe as you stand up, and then hold it on the dock as you step up. Alternatively, if you feel more stable doing so, you can get out by holding onto the dock, then kneeling on it before standing up.

**Getting In and Out from Shore**

When launching a canoe from a beach or gradually sloping shore, the canoe is perpendicular to the shore. To get in when the canoe is being launched forward, with the stern end on the shore, step in
and work your way forward to the bow seat by staying low, holding on to the sides of the canoe for balance. As you do this, the stern paddler should steady his end of the canoe by holding it between his legs. An easier method is to step from the shore into the canoe directly at your seat. In either case the stern paddler then shoves the canoe out into the water and steps in.

When the canoe is being launched backwards, with the bow on the shore, hold the canoe steady while the stern paddler goes back to his seat. Then place your paddle against the bow seat out of your way, get in, turn around, and sit on the bow seat. Unless someone on shore can push the canoe out after you are seated, push off from the shore with one of your feet before taking your seat.

When landing perpendicular to the shore, the canoe comes in bow first. Leave your paddle at the side of your seat and get out of the canoe first, stepping on dry land if possible. Pull the canoe farther up on the shore and then hold it steady between your legs while the stern paddler gets out.
**Portage**

To carry the canoe in an upright position for short distances on land, the sighted stern paddler carries the front end and you the rear end. Your partner tells you when to move right or left.

**A Third Person**

The canoe may carry a third person, who should be sighted or at least have enough sight to not require a sighted guide. He sits on the floor of the canoe or on a cushion facing forward between the bow and stern paddlers. He can rest his back on a canoe crosspiece (called a thwart) with a cushion or other support in front of it. If desirable, he can paddle from that position using the normal bow stroke. His strokes should be synchronized with and on the same side as the bow paddler’s. If needed, the stern paddler can tell him on which side to paddle and when he should start and stop paddling. For launching from and landing on a shore, he will be the second of the three persons to get in and out of the canoe. On the dock he can be the person who holds the canoe against it while the stern and bow paddlers get in and out.
Canoeing in a Group

Some summer camps and other organizations plan day canoe trips for persons who are blind or visually impaired and their sighted guides. Here the same principles apply as for group hikes and group bicycle trips. The leader is the sighted stern paddler in the front canoe and his assistant is the sighted stern paddler in a canoe at or near the rear of the group. The assistant can help canoes in the rear by encouraging lagging ones, assisting any that have run aground, and correcting any not following the proper course.

In a group, two or more canoes could be paddled parallel to each other rather than single file, if there is ample room. If the sides of two canoes are about to come in contact with each other, the guide should warn the person who is blind or visually impaired to keep his paddle and hand on that side out of the way. Where alternative routes present themselves, such as around an island, the lead canoe establishes the course to take. At a narrow or other difficult place, or otherwise periodically during the trip, the leader stops and waits until he
is able to see all the canoes in the party. Also at this time, he can resolve any problems that have not been resolved by the assistant in the rear.

The leader and assistant help launch and land the canoes. The leader plans the trip, designates the occupants of each canoe, organizes the supplies and equipment, and arranges for the transportation to the starting point and back from the finishing point, which could be away from the starting point. For transporting the canoes, a vehicle or trailer with a rack accommodating multiple canoes is recommended.

**Overnight Trips**

A canoe trip that lasts two or more days and includes overnight camping is more difficult and challenging. There are organized trips of this nature for persons who are blind or visually impaired and their sighted guides. Loaded in the canoe between you in the bow and your guide in the stern is your extra clothing, food, and other camping equipment and supplies, similar to what is carried on backpacking trips. A canoe loaded for overnight
camping is of course heavier than for a day trip and so it is less maneuverable, more apt to run aground in shallow water, and requires more paddling energy and more effort for launching and landing. It is usually recommended that your canoe not have a third occupant, adding considerably more weight and requiring additional space. However, if there is one, he should be sufficiently sighted so as to be able to get about on his own. He would sit in the middle with the equipment and he could also help with the paddling.

To launch the canoe from the shore, load it, if possible, before pushing it into the water. To avoid having to scramble over gear to get to your bow seat, it may be possible for you to take your seat before the canoe is pushed into the water. Otherwise, the canoe could be launched backwards, stern first, in which case it would be helpful if there were a person on shore to help push the canoe out after you have taken your bow seat. If the water is very shallow, you or the stern paddler may have to wade out into it until the canoe floats freely.
To launch the canoe from a dock, load the equipment while holding the canoe next to the dock. Unload in that position as well. If the dock has a ramp, load the canoe, then push it down the ramp into the water before getting into it.

Preparations for overnight canoe trips are similar to those for backpacking hikes. The leader, with his assistant, organizes the supplies and equipment, arranges transportation to and from the canoeing area, determines the canoeing route, campsites, and who canoes together. Items used in common, such as food and cooking equipment, may be packed together rather than distributed among the packs of the individual members. Overnight trips are often done in groups, and the canoeing procedures for the group are similar to those for a day canoe trip previously described. But an overnight trip could consist of a single canoe bearing the person who is blind or visually impaired in the bow and his sighted companion in the stern.

Perhaps the easiest type of trip is to paddle a moderate distance to a campsite on the shore or an
island, unload the canoes, and camp there one or two nights. The camp is then a base for daytime paddling in lightened canoes. The leader may select the paddling route for the day in accordance with the preferences of the participants and the time available. A more demanding trip would involve camping out for two or more nights at different locations with one or more portages along the way. The route would be down a river or through lakes and ponds with some connecting streams.

Your trip will have an added challenge if there is a portage to negotiate. Here the members of the party carry the canoes and equipment over land, usually along a trail, between navigable parts of the route. If there is a short, smooth portage, the empty canoe can be carried upright by the guide and person who is blind or visually impaired in the manner previously described. The two then return to pick up the equipment, with the guide leading the person who is blind or visually impaired along the route. If the portage is short but difficult, such as down a steep slope around a dam, and there are two or more canoes in the party, the sighted
members could carry the canoes upright, followed by the equipment.

For a longer portage, the guide would carry the canoe on his shoulders, usually with a yoke, with the person who is blind or visually impaired carrying what equipment he can. The latter can hold onto the rear end of the canoe for guidance. The guide, and the blind person if needed, then returns to pick up the remaining equipment. If such a portage is a difficult or unfamiliar one, the guide could lead the person who is blind or visually impaired along it while both carry the equipment, after which the guide returns to pick up the canoe. If the canoe has a third occupant, which would increase the amount of the equipment carried, he should be able to carry his share of the equipment and, at the same time, guide the person who is blind or visually impaired along the portage when the guide is carrying the canoe. Also, he and the guide could carry the canoe upright for short portages.
Rowing

Rowing a boat requires only moderate skill. While you row the oars, your sighted guide sits in the stern of the rowboat facing you and the direction in which you are rowing. To go more to the right, he can say, “Right oar,” which means to pull on the right oar, which is on your guide’s left. To go to the left, he can say, “Left oar,” which is on your left and his right. He can vary these instructions by saying, for example, “A little right” or “Hard right.” For a little right, apply more pressure to the right oar than to the left. For hard right, pull only on the right oar, or at the same time, backwater with the left oar. You can apply this hard-right technique or a corresponding hard-left technique when your guide says to turn the boat around. When the boat has reached the desired direction, he says, “Straight,” and you then resume pulling equally on each oar. When you are rowing for some distance, your guide need not give you frequent instructions to keep you precisely on course, but can just have you make a course correction from time to time as needed. He can also tell you if your normal rowing
stroke tends to take the boat right or left so that you can compensate for it.

In your rowing stroke, pull on the oars together and not one after the other. Your guide can let you know if your oar blades are moving at the proper depth in the water. He can tell you when to stop rowing so that the boat will slow down and when to backwater so the boat will stop or move backwards. The guide should ensure that the boat avoids obstacles and shallow or narrow places where there is insufficient clearance for the oars. He should give you adequate guidance for maneuvering the boat to a dock or other landing place. Do not stand up in the boat or change places with your guide except at the dock or shore.

For rowing, the oars should be fixed in their locks where they cannot rotate or slip. If they are not, you may have difficulty keeping them in their proper position with their blades perpendicular to the surface of the water, and your guide may have to tell you periodically how to adjust the position of one or both oars.
Getting In and Out from a Dock

Since rowboats usually have a flat bottom, they are more stable than canoes, making them easier to get in and out of. Before you get into the boat, the oars should be already in the boat on each side of your seat out of the way of your getting in. Once in your seat, fix the oars and oar locks in their places as necessary.

Your guide on the dock holds the boat for you while you get in. You, in turn, hold onto the dock from the boat as he gets in after you. Here is a stable way for you to get into the boat:

1. Kneel where your guide indicates at the edge of the dock facing the stern of the boat.
2. Feel with your hand the seat you are to row from.
3. Place your adjacent foot on the bottom of the boat on the stern side of the seat.
4. Ease yourself onto the seat, holding on to the boat and the dock as convenient.

An even more cautious method is to sit on the dock, put your feet on the bottom of the boat, and
then move onto your seat facing the stern. If there is a third person to hold the boat, you might adopt a less cautious method. Stand with your guide at the edge of the dock facing the stern of the boat, then step sideways into the bottom of the boat where your guide directs you, while you hold his arm for support and avoid stepping on the adjacent oar. Or you might step first onto the seat you are to occupy and then to the bottom of the boat.

When starting from a dock, you and your guide will need to push the boat away from it before you can engage your oar on that side. On landing, you should move the oars into the boat. If you are landing at a dock, first move the oar in on the dock side, your guide telling you when to do so. On landing at the dock, a third person can hold the boat to it. Without a third person, hold the boat against the dock yourself while your guide gets out. Then he holds the boat as you step onto the dock, preferably holding onto your guide or someone else on the dock. Rather than
stepping out, you could first kneel on the dock and then stand up.

If another passenger is in the boat, he should sit in the bow rather than next to the guide in the stern. He could be the third person who holds the boat against the dock while you get in and out, leaving your guide free to assist you as needed. He should be a sighted person or, if legally blind, with enough vision to be able to get in and out of the boat safely on his own.

**Getting In and Out from Shore**

When launching your rowboat from a beach or other shore, the bow of the boat is on shore. Usually the person who sits in the stern gets in first, followed by the rower, who shoves the boat out as he steps in. On landing with the bow in, the rower usually gets out first and pulls the boat on shore. An easier launch alternative for you is to take your seat first at the oars and for the guide to shove the boat out and then step past you to his stern seat. On landing he again steps past you to get out of the boat and pull it up. Someone on shore can
make launching and landing even easier by pushing the boat out and pulling it in. If there is a third passenger, he could push the boat out and pull it in, being the last person to get into the boat and the first one to get out. To launch the boat in shallow water, you may need to take an oar and push it against the bottom. In very shallow water, one or more passengers may have to wade in the water to get the boat launched as well as landed. On launching, backwater with your oars for a short distance and then turn the boat into the desired direction. To land, row strongly to propel the boat onto the shore.

Cross-Country Skiing

Cross-country skiing, also called Nordic skiing, generally requires more skill and physical energy than tandem bicycling, canoeing, and rowing. For success, a good sense of balance is needed. Your sighted guide should be an experienced cross-country skier.

Your guide normally skis next to you on your left and a little to the rear to better observe your
movements. On narrower sections of trail and when other skiers are passing, your guide skis behind you. As you ski together, she gives you desired information on your route, as well as directions for keeping you on track. She tells you of approaching turns, slopes, bumps, and gullies, but only to the extent that you need the information, for you should be as much on your own as possible. The guide may, of course, encourage you and compliment you on your efforts where merited.

When skiing for the first time as a person who is blind or visually impaired, you should receive instruction from an experienced sighted guide. If you had previously skied and then lost your sight, you will, of course, need less instruction as a blind skier. Your instructor may be able to remain your sighted guide for future occasions. In any event, once you have gained competence as a skier who is blind or visually impaired, your sighted guides could be skiers who have not had experience as guides. You would give them pointers on how you wish to be guided. Of course, you should start off
on easier routes, and then build up to more challenging ones.

Where to Ski

You will probably find that the most suitable area for skiing is a cross-country skiing center (also called a ski touring center) where tracks are set by machine. These clear-cut indentations in packed snow, into which each ski fits, are established for the sighted skiers, but they are especially beneficial to skiers who are blind or visually impaired, helping to keep them on the proper route. The tracks may be of little use on pronounced slopes, or when they become worn down. Ski centers may have an extensive network of trails varying from easy to difficult, and there is a charge for their use. The centers usually have ski equipment for rent and provide skiing instruction.

The safest places for your skiing are broad, obstacle-free areas. These are not necessarily cross-country ski centers, but can be meadows, golf courses, and roads that are not plowed in winter and are closed to motor vehicles, such as in
state forests. There may be other, more challenging, routes without machine-set tracks, such as forest trails, which you may wish to try.

**Skiing Up and Down Slopes**

The most difficult aspects of cross-country skiing are going up and down pronounced slopes. There is nothing more tiring than attempting to go up a slope and having your skis constantly slip back. According to the steepness of the slope and your guide’s suggestions, adopt the best method for your skis to grip or edge into the snow. Sidestepping and a reverse snowplow, where your toes are pointed out, are two popular methods.

Care must be taken on down slopes. The steeper, the longer, and the more curved they are, the more difficult they are to negotiate. This is especially true if there are trees or bushes along the edge of the route you could collide with. The guide can stay behind you while you ski down it, telling you to go right or left as needed. The easiest way to slow your speed and make any turns is to snowplow your way down. If the slope seems too
difficult for you to ski down alone, try one of these two techniques with your guide:

1. Ski down side-by-side with your arm inside hers, and each hand continuing to hold a ski pole. To slow you down, each of you could snowplow with your outside ski.

2. Ski down right behind your guide with one of your skis inside her two skis while you hold her around the waist. With this technique, hold your two ski poles in your outside hand.

Skiers who are blind or visually impaired may feel dizzy or unstable when coming to a stop after coasting downhill. The feeling may be so strong that you fall backwards. To prevent this feeling, resume sliding your skis forward before your coasting can come to a stop. Since you are most apt to fall when going downhill, you should learn the technique of falling sideways and getting back up without undue struggle.

**Types of Snow**

Skiing in fresh snow off the beaten track can give you more of a winter-wonderland experience. Fresh
or loose snow makes it easier for you to control your downhill speed. But more energy is required to break track or even to follow a freshly broken track than to follow a well-manicured trail in a ski center. It is indeed rather difficult for a skier who is blind or visually impaired to follow a freshly made track in new snow, for either ski can easily slide off to one side or the other. If you and your guide are following a route in unbroken snow that is wide enough, she should ski beside you for best guidance, each of you breaking track. Then, if you return over the same route, try to follow her previously made tracks, while she more or less follows your tracks. If there is another sighted skier with you, he can break track, which you follow with your guide skiing on your left. If the route is so narrow as to require single-file skiing, this will demand greater skill on your part, as your guide will be skiing behind you.

If there are stones, roots, or other rough places under fresh snow, you need at least four inches of snow to ensure that you do not scrape the bottom of your skis. If the underlying surface is smooth,
such as the fairway of a golf course, you can ski on a thinner layer of snow without fear of marring your skis.

In the case of older, more settled snow with harder texture, tracks previously made by skiers may be easier for you to follow. However, if such a surface is broken up by various tracks, footprints, and other irregularities, your skiing will be rougher and more difficult. Skiing on icy surfaces or crusted snow should be avoided as much as possible.

**Equipment**

Waxed-type skis perform the best, but applying the right types of wax to them, according to snow conditions, can be a nuisance. This can be avoided by using waxless skis. Such skis should be quite adequate for your purposes so long as they provide sufficient grip for going uphill. Waxless skis with mohair strips provide the best grip for going uphill and the most restraint for going downhill, but they provide less glide for going along the level. Consult a reputable ski touring center or outdoor equipment store about the type of skis, bindings, boots, and
poles most suitable for your use.

**Groups**

Cross-country ski outings for persons who are blind or visually impaired and their sighted guides are conducted by certain organizations for blind people. Several programs include Colorado Ski School for the Blind in Vail; Skiing for the Disabled in Winter Park, Colorado; Ski-for-Light, which has headquarters in Minneapolis, Minnesota; and regional programs in other areas of the country. The skiing outings may last for a weekend or more, with lodging and meals arranged for. They provide a useful way for persons who are blind or visually impaired to develop experience in cross-country skiing.

**Summing It Up**

If you are interested in skiing or any other outdoor activity, ask your instructor for more information on these pursuits. Your involvement will be richly rewarded by the freshness of the air and the sun and wind on your face. Enjoy the fragrance of a pine forest or the musky odor of decaying fall
vegetation; the flute-like tones of a wood thrush; the gentle babbling of a brook or the roar of a waterfall; and a dusting of snow when you brush against a heavily laden tree. You may enjoy walking on your own or in the good company of sighted companions. You can take vicarious pleasure in their enjoyment of the views and other splendors of the natural world they gaze upon, imagining what they see with their eyes. Through these outdoor activities and experiences, you meet a physical challenge which serves to overcome your disability. Your appetite is whetted for further outings in the countryside, through the forest, up the mountain, and along the waterway.

**Assignment 4**

Using your own words, answer the following questions in print, braille, large print, or on cassette or computer diskette. Be sure to include your full name, student ID, address, and phone number. Also mention “On the Move,” Assignment 4, your instructor’s name, and the date you plan to mail the assignment to the Hadley School.

1. What are the advantages of a unisex tandem
bicycle with gears?
2. What is the recommended height for bicycle seats?
3. What traffic rules must cyclists observe?
4. What functions does your tandem bicycle guide perform riding in front and what are your functions riding in the rear?
5. Describe what you and your guide do to start and stop on a tandem bicycle.
6. What item of equipment should you always carry in a boat or canoe?
7. Describe how to get in and out of the bow position of a canoe at a dock.
8. Describe how to take your seat in the bow when the canoe is launched from shore with
   a. its bow in the water and the stern on land
   b. its bow on land and the stern in the water.
9. What kind of instructions does your stern paddling guide give you as bow paddler in a canoe?
10. You may stand up or change positions in a
canoe or rowboat only under what conditions?

11. Why are the oars of a rowboat fixed in their locks?

12. What is a stable way to get into a rowboat from a dock and take your position at the oars?

13. Where is your sighted guide usually located in relation to you when cross-country skiing? What information and directions does she give?

14. What can you do to prevent your skis from slipping backward as you ascend a slope?

15. What technique can you use to slow yourself down when skiing down a slope?

16. If you fall while skiing, how should you do it?

17. Would you find it better to use waxed-type or waxless skis? Why?

18. What is the advantage and disadvantage of using mohair strips on your skis?

19. List several advantages of cross-country skiing over downhill skiing.

20. What are the benefits and enjoyable aspects of moving about under your own power in the great outdoors—whether on your feet, a
bicycle, or skis, or in a boat or canoe?

When you’re ready to do so, mail your answers to your Hadley instructor at The Hadley School for the Blind, 700 Elm Street, Winnetka, IL 60093-0299. Assignments in braille, large print, or on audio-cassette or computer diskette can be mailed free of charge in an envelope labeled “Free Matter for the Blind.” Assignments in regular print must have adequate postage.