Welcome to the Adult Learn to Row Program! And thank you for choosing Albany Rowing Center.

We’ve prepared this packet of basic information to give you an idea of what to expect as you learn your new sport. As with any sport, rowing has a lot of terminology - parts of the boat, elements of the rowing stroke, rules, commands, etc. - that will be thrown at you during your Learn to Row course. The attached pages include:

- Eleven Insights Into the Sport of Rowing – Information about rowing adapted from USRowing (http://www.usrowing.org/index.aspx);
- A diagram showing the anatomy of a rowing shell (downloaded from Berkeley High School rowing http://www.berkeleyhighcrew.org/sport/diagram);
- A list of basic coxswain commands;
- A glossary of rowing terms;
- A sheet with some stretches to keep your back strong and limber;
- Core strength exercises: the key to good rowing posture and preventing injury is good core strength.

Just a few pointers on being prepared for your class:

- There is no running water at the boathouse, so bring a reusable water bottle with an extra in your car.
- Rowing is a water sport; expect to get wet at some point, either from rain, waves, splashing oars or possibly flipping your single. Keep a set of dry clothes in your car.
- Wear comfortable clothing that you don’t mind getting wet, dirty, muddy; don’t wear long t-shirts or really baggy pants/shorts. They get stuck in the tracks of the sliding seat.
- Don’t wear your $100 sunglasses on the top of your head because they will fall in the river when you’re putting the boat in or out of the river.
- Bring or wear socks. The boats are equipped with foot stretchers and shoes attached to the boat. You don’t wear your own shoes; you will want to wear socks.
- There is a place to hang up your keys; but there are no lockers or storage for backpacks. Leave your valuables in the car.
- Don’t park in the spaces designated for vehicles with trailers. You will get a ticket. Park at the south end of the lot.
- The Hudson River is tidal at Albany and conditions change by the hour. Some days are calm and beautiful; others can be cold, windy and ugly. Practices are rarely cancelled due to rain; but always cut short if there is thunder or lightening.
Eleven Insights Into the Sport of Rowing

Adapted from US Rowing

1. Rowing is a total body workout. Rowing only looks like an upper body sport. Although upper body strength is important, the strength of the rowing stroke comes from the legs. Rowing is one of the few athletic activities that involves all of the body’s major muscle groups. It is a great aerobic workout, in the same vein as cross-country skiing, and is a low-impact sport on the joints.

2. Rowers are among the world’s best athletes. Rowing looks graceful, elegant and sometimes effortless when it is done well. Don’t be fooled. Rowers haven’t been called the world’s most physically fit athletes for nothing. The sport demands endurance, strength, balance, mental discipline, and an ability to continue on when your body is demanding that you stop.

3. Sweep (like a broom) and Sculling (with a “c”). There are two basic types of rowing: sweep rowing and sculling. In sweep rowing, athletes hold one har with both hands. In sculling, the athletes have two oars, one in each hand.

4. The boat. Although spectators will see hundreds of different races at a rowing event, there are only six basic boat configurations. Sweep rowers come in pairs (2s), fours (4s) and eights (8s). Scullers row in singles (1x), doubles (2x) and quads (4x). Sweep rowers may or may not carry a coxswain (cox-n), the person who steers the boat. All eights have coxswains, but pairs and fours may or may not. In all sculling boats and sweep boats without coxswains, a rower steers the boat by using a rudder moved with the foot; or by having the rowers apply pressure in the water on one side of the boat or the other.

5. The categories. Rowers are categorized by sex, age and weight. Events are offered for men and women, as well as for mixed crews containing an equal number of men and women. There are junior events for rowers 18 or under, or who spent the previous year in high school, and there are masters events for rowers 21 and older. There are two weight categories: lightweight and open weight.

6. The equipment. Today’s rowing boats are called shells, and they are made of lightweight carbon fiber. The smallest boat on the water is the single scull, which is only 27 – 30 feet long, a foot wide and approximately 30 pounds. Eights are the largest boats at 60 feet long and a little over 200 pounds. Rowers use oars to propel their shells. Sweep oars are
longer than sculling oars, typically with carbon fiber handles and rubber grips (although 
some sweepers still prefer wooden handles). Sculling oars are almost never wood.

7. The crew. Athletes are identified by their position in the boat. The athlete sitting in the 
bow, the part of the boat that crosses the finish line first, is the bow seat or No. 1 seat. 
The person in front of the bow is No. 2, then No. 3 and so on. The rower closest to the 
ster, that crosses the finish line last, is known as the stroke. The stroke of the boat 
must be a strong rower with excellent technique, as the stroke is the person who sets 
the rhythm of the boat for the rest of the rowers.

8. SPM not MPH. Rowers speak of speed in terms of strokes per minute (SPM), literally the 
number of strokes the boat completes in a minute’s time. The stroke rate at the start is 
high – 38 to 45, even into the 50s for an eight – and then “settles” to a race cadence 
typically in the 30s. Crews sprint to the finish, taking the rate up once again. Crews may 
call for a “Power Ten” during the race – a demand for the crew’s most intense 10 
strokes.

9. Race watching. The crew that’s making it look easy is most likely the one doing the best 
job. When watching a race, look for a continuous, fluid motion from the rowers; 
synchronization in the boat; clean catches, i.e. oars entering the water with little splash; 
and the boat with the most consistent speed.

10. Teamwork is number one. Rowing isn’t a great sport for athletes looking for MVP status. 
It is, however, teamwork’s best teacher. The athlete trying to stand out in an eight will 
only make the boat slower. The crew made up of individuals willing to sacrifice their 
personal goals for the team will be on the medal stand together. Winning teammates 
successfully match their desire, talent and bladework with one another.

11. Rowing is the ultimate walk-on sport. (It’s easier to get started than you think.) US 
Rowing is a membership organization that serves rowers of every age and ability from 
the beginner to the experienced rower to the national team. So, there’s definitely a 
place for you.
Glossary of Rowing Terms

**Bow:** The forward section of the boat; the first part of the boat to cross the finish line; the person in the seat closest to the bow, who crosses the finish line first.

**Bow coxed boat:** A shell in which the coxswain is near the bow instead of the stern. It's hard to see the coxswain in this type of boat, because only his head is visible. Having the coxswain virtually lying down in the bow reduces wind resistance, and the weight distribution is better.

**Button:** A wide collar on the oar that keeps it from slipping through the oarlock.

**Coxswain:** Person who steers the shell and is the on-the-water coach for the crew.

**Deck:** The part of the shell at the bow and stern that is covered with fiberglass cloth or a thin plastic.

**Ergometer:** Rowers call it an "erg." It's a rowing machine that closely approximates the actual rowing motion. The rowers' choice is the Concept II, which utilizes a flywheel and a digital readout so that the rower can measure his "strokes per minute" and the distance covered.

**FISA:** Short for Federation Internationale des Societes d'Aviron. The international governing body for the sport of rowing in the world, established in 1892.

**Gate:** The bar across the oarlock that keeps the oar in place.

**German rigging:** A different way of setting up which side of the boat the oars are on in a sweep boat. Instead of alternating from side to side all the way down, in a German rigged boat, two consecutive rowers have oars on the same side.

**Lightweight:** Refers to the rowers, not the boats; there is a maximum weight for each rower in a lightweight event as well as a boat average.

**Oar:** Used to drive the boat forward: rowers do not use paddles.

**Port:** Left side of the boat, while facing forward, in the direction of the movement.

**Power 10:** A call for rowers to do 10 of their best, most powerful strokes. It's a strategy used to pull ahead of a competitor.

**Repechage:** The second-chance race which ensures that everyone has two chances to advance from preliminary races since there is no seeding in the heats.

**Rigger:** The triangular shaped metal device that is bolted onto the side of the boat and holds the oars.

**Run:** The run is the distance the shell moves during one stroke. You can figure it by looking for the distance between the puddles made by the same oar.

**Sculls:** One of the two disciplines of rowing – the one where scullers use two oars or sculls.
**Shell:** Can be used interchangeably with boat.

**Slide:** The set of runners for the wheels of each seat in the boat.

**Starboard:** Right side of the boat, while facing forward, in the direction of movement.

**Stern:** The rear of the boat; the direction the rowers are facing.

**Straight:** Refers to a shell without a coxswain i.e. a straight four or straight pair.

**Stretcher or Footstretcher:** Where the rower’s feet go. The stretcher consists of two inclined footrests that hold the rower’s shoes. The rower’s shoes are bolted into the footrests.

**Stroke:** The rower who sits closest to the stern. The stroke sets the rhythm for the boat; others behind him must follow his cadence.

**StrokeCoach:** A small electronic display that rowers attach in the boat to show the important race information like stroke rate and elapsed time.

**Sweep:** One of the two disciplines of rowing – the one where rowers use only one oar. Pairs (for two people), fours (for four people) and the eight are sweep boats. Pairs and fours may or may not have a coxswain. Eights always have a coxswain.

**Swing:** The hard-to-define feeling when near-perfect synchronization of motion occurs in the shell, enhancing the performance and speed.
Basic Coxswain Commands

Rowing also has its own list of commands. "Stop" does not exist, only Weigh enough and Let it run. The commands are listed below in boldface followed by their definitions and an example of their use in italics. These basic commands are those which should be learned within the first week or two as they are essential for you to communicate with your teammates. A full list is in The Coxswain’s Manual. Please note that your team may use commands slightly different than those below. In these cases, use your team's preferred commands, so that you do not confuse your teammates.

Adjust the ratio - Used to correct either a rush or sluggishness on the recovery. The ratio compares the time used by the hands away from the body motion to the slide speed. *Three man to adjust the ratio.*

Back it (down) - Row backwards. The blades do not need to be turned around in the oarlocks although they can be. *Bow four, back it down.*

Check (it down) - Drag the blades on the water to slow and/or stop the boat from moving forward or backward. Having only one side check their blades results in a turn to that side. *Port to check it down, starboard to row.*

Down and away - Push the hands down fully at the finish to give the blade more height off the water.

Early - A part of a stroke is early. By itself, the word usually refers to the catch timing.

Finish timing - A reminder to the crew to align their finish times.

Feather - Roll the blades to the feather position. *All eight to feather.*

Hands on - Grab onto the boat and prepare to move it. Interchangeable with lay hold.

Hold water - See check it down.

Heads up - Pay attention, something to watch out for is near you. This should always be used when someone may not see your shell coming at them such as when leaving the boathouse.

Late - A part of the stroke is late. By itself, the term usually refers to the catch timing. Do not use this over and over without explaining which part of the stroke is late and how to correct it. *Three, you're late.*

Layback - Go to the layback position. *All eight to layback.*

Let it run - Oarsmen to stop rowing at the finish, hands away, or on the gunwale and allow the boat to glide (run) across the water's surface without the blades touching it.
This command is used in some programs interchangeably with weigh enough. *All eight, let it run.*

**Over the (your) heads** - To lift the boat to the over the heads position. *Over the heads, ready, up.*

**Paddle** - Row at no pressure or to stop the drill/piece. *All eight, paddle.*

**Roll** - Two meanings: 1. When out of the water, roll the boat from the waist position to the over the heads position or vice versa. To the waists, ready, roll. 2. When on the water, roll the blade.

**Shoulders** - To lift the boat so that the gunwales of the boat rest on or near the shoulder. *Shoulders, ready, up.*

**Square** - Make the blade perpendicular to the water. *Square it up.*

**Touch it up** - Someone to row gently to align or position the boat better. *Bowman to touch it up.*
Dorsal-Lumbar-Pelvic Exercises

Exercise One.

Begin in the kneeling position. Slowly rock forward, dropping the pelvis to the floor while lifting the chin to the ceiling (Fig. 1A). Then rock back on the knees while arching the back and flexing the head to the floor (Fig. 1B).

Exercise Two.

Lie on your back with knees bent (Fig. 2A). Using the stomach muscles pull the knees up to the chest. Grasp knees with hands and pull into chest (Fig. 2B).

Exercise Three.

Lie on your back with knees bent. One knee at a time is drawn up, grasped by the hands, and pulled into the chest (Fig. 3).

Exercise Four.

Lie on your back, arms placed at sides for balance, knees drawn up in the air. Slowly rotate pelvis and legs from one side to the other, nearly touching the lateral thigh to the floor each time (Fig. 4).

Exercise Five.

Lie on your stomach with arms stretched out above head. While keeping forehead touching the floor, slowly raise legs up into the air (Fig. 5).
CORE STRENGTH EXERCISES

WHAT IS CORE STRENGTH?

If you ask, what is core strength, you probably will get lots of different answers. The most common mistake people make is to think about core strength only as strong abdominal muscles. Core includes all muscles at the middle of our body; abdominal, lower back, gluteals, obliques and more smaller, lower layers, located at the middle part of the body. When you think core strength, you have to imagine the foundation of the building. This is the part that connects our upper and lower body, holds our posture, balance maintenance and is involved in most of our body movements. It is important to understand, that it is all about balance. One may have good-looking abdominal muscles, but if the rest of the core area is weak this is a recipe for disaster. For many years people were led to think, that if they do their sit-ups every morning, their backs and their body will be well supported. Remember, to build good core, you need to work your upper, middle and lower back and front and both sides of the torso. As you see it will take more than just sit-ups to build the core.

Strength is one of these qualities that doesn't take too long to build, comparing to stamina and speed for instance. Saying "easy come-easy go" applies very well to strength. It won't take very long to build good core. You will see, and most important feel, the results after a short period of time. But after you build it, you have to maintain it, or you will lose it fast. Every time young people grow an inch or two, they lose some of the strength that they already have built. If their core strength isn't strong enough to support and keep the body connected, simple daily activities, such as lifting things or sitting at the computer for a long time, can do permanent damage on their spine. This danger is much greater if involved in high volume training. If athletes and coaches pay more attention to their upper body and core strength, this will ensure a long and healthy active sport life, without negative spine changes and back injuries.

Many adults choose sculling and cross-country skiing as their main aerobic sports because it is a great joy to be outside, they are full body sports, and very important, both sports have very low impact on the joints. If you are going to use your upper and lower body at the same time, you need good connection in the middle. Remember that every sport demands good core, but not necessarily builds it. With that in mind you are most likely to be able to enjoy many activities or sports you choose without injuries, if you build and maintain good core strength. It doesn't matter, if you are an athlete, just an active person or you just want to protect your back while working around your house or garden, having good core will give your body good support. There are many different core strength programs out there, choose the one that fits you best. Good core means good posture, better balance, good body support and less back injuries.

IMPORTANT NOTES

- Before you start your core strength routine do some aerobic activities, like walking, easy jogging, spinning or some active exercise for up to 15 minutes to raise your heart rate and warm up your muscles.
- After any exercise be sure to stretch, while muscles still warm.
- Be sure to drink plenty of water while exercising.
HOW TO START BUILDING CORE STRENGTH

The first thing you need to do before you start a core strength routine, or any new training program is to evaluate your level at the moment. The first 10 exercises at the beginner’s level are for building good balanced core. Start with going over all the exercises. Some of them will feel easier than others. Do not push too hard. Do as many as feels comfortable. Remember the highest number you have completed. For the next 3 to 4 weeks, your goal will be to do the same repetitions of each exercise with the same level of effort. When you are building strength, you have to listen to your body. The next day after you have done your routine you will feel some tension in the muscles you have worked. If you don't feel anything, repeat the same effort as the day before. If your muscles are sensitive, take a day or two off, but no more than that and do it again. When you get to the point that you can do the same repetitions for all the exercises and they feel equally hard, stay with it for couple of weeks before you start increasing the number of repetitions. About 15 to 20 repetitions of each exercise is a good goal. You just need a 20 to 30 minute routine, two to three times a week, and you will be able to maintain it. If you are involved in any sport or fitness program, or you are following some upper and lower body strength program, you should move to the advanced core strength exercise routine.

Adapted from Coach Pepa Miloucheva’s handout, Craftsbury Sculling Center, Vermont
CORE STRENGTH FOR BEGINNERS

1. BP/basic position/- on your back, hands beside the body, legs up to 90 degrees.

2. BP-On your back, hands behind the head, legs bent in the knees, feet on the floor.

3. BP-On your back, hands beside, legs straight, slightly off the floor.

4. BP-On your back, hands beside the body.

5. BP-On the floor, legs straight, arms behind the head. Lift your legs and shoulders off the floor.

Lower your legs down to 45 degrees. Hold for a few seconds. Return back to BP.

Lift your body up, as far you can. Hold for a few seconds. Slowly return to BP.

Lift your left leg as far as you can, without bending the knees. Switch legs.

Lift your body up with your hands leading until arms are parallel on the floor. Return easy to BP.

Bend your left leg at the knee, twist at the waist, and try to touch right elbow and left knee. Hold for a few seconds. Return to BP. Switch sides.
6. PB - Face down knees and palms on the floor.

7. BP - On your stomach, arms straight up.

8. BP - On your stomach, arms straight up.
   Lift your arms and legs easy off the floor.

9. BP - On your stomach, arms behind your back, hold your hands together.

10. BP - On your stomach, arms beside the body.

Lift your left leg and right arm up.
Hold for a few seconds. Return back to BP. Switch sides.

Lift your arms and legs off the floor.
Hold for a few seconds. Return back to BP.

Lift left leg and right arm off the floor.
Hold for a few seconds. Switch sides.

Lift your upper body of the floor, try to reach back with your arms. Keep your tights, on the floor all the time. Hold for a few seconds. Easy return to BP.

Lift your thighs off the floor, keep your shoulders down. Hold for a few seconds. Return back to BP.
CORE STRENGTH FOR ADVANCED

1. BP/basic position/On your back, hands beside the body.
   Lift your legs and body off the floor until arms and legs are parallel. Return slowly to BP. 10X

2. BP-On your back, hands beside the body.
   Lift your legs and body off the floor, until arms are parallel to the legs. Twist at the waist. Hold for a few seconds. Back to legs and arms parallel. Slowly return to BP. 10X

3. BP-On your back, arms beside the body.
   Lift your legs until parallel to the body.
   Lift your legs straight up.
   Slowly return to BP. 10X

4. BP. On your back, arms beside the body, legs bent at the knees, feet on the bench.
   Lift your torso up, until straight. Hold for a few seconds. Return to BP. 10X

5. BP. Face down, elbows and feet on the floor.
   Lift your body off the floor straight.
   Hold for 30 seconds. 2X
6. BP. Face up, elbows and heels on the floor. Lift your body off the floor straight. Hold for 30 seconds. 2/4X

Note: Alternate exercise 5 and 6

7. BP-On your left side. Left elbow and left foot on the floor. Lift your body off the floor straight. Hold for 30 seconds. 2/4X

8. BP-On your right side. Right elbow and right foot on the floor. Lift your body off the floor straight. Hold for 30 seconds. 2/4X

Note: Alternate exercise 7 and 8

9. Sit on the floor, hands behind palms on the floor pointing back. Lift your legs straight together off the floor. Write the numbers 1 to 10 with both legs together. Keep arms straight at the elbows.

10. Exercise with the abroller:
Abroller is simple tool, but very successful for core and upper body strength maintenance. If feels to hard at the beginning start with a short distance from the wall/ use it for a stopper/. Every week increase the distance until able to do a few good ones, than build from there.

BP-On your knees. Roll the roller forward until your body is straight. Hold your weight off the floor. Easy return to BP.