### BRISBANE AND GPS ROWING CLUB



Learn to Row Academy

**Student Manual** 

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### 1 Lesson - The boat shed and getting started.

### Objectives:

- The use of basic rowing terminology
- Be able to distinguish various parts of rowing equipment.

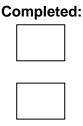
### Key Outcomes:

- Be able to name parts of a boat and oars
- Name common rowing areas and safety hazards for rowers local to GPS
- Safely and effectively manage boat and equipment movement
- Demonstrate basic rowing movement on an ergometer
- Confirm the ability to swim 100 meters with clothes on
- Be able to provide basic medical information related to rowing

### Key Strategies and Activity Guide

### 1.1 LTR Application Form

Make sure the LTR Application is completed and fees paid.

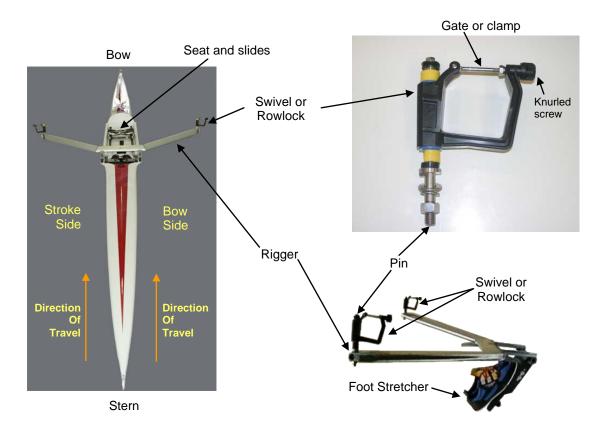


### 1.2 Rowing Guide

Show students the difference between boat types and the terminology used for naming boat and parts of boats/oars. Highlight the difference between sculling and sweep rowing, coxed and coxless boats, bow-side/stroke-side and the bow and stern of a boat.



Types of rowing blades.



Components of a rowing boat.

### 1.3 Tour of the GPS Boat Shed

Take the students for a tour of the boat shed and demonstrate how the equipment s stored. Highlight the delicate nature of the boats and the expense involved in purchase, maintenance and repairs. Point out topics such as private vs. club oars, private boats, club officials if they are around, water restrictions, washing techniques, gym hygiene and cleaning up after use, the kitchen, toilets and showers.

### 1.4 Local River Conditions

Show a map of the local area of the river that GPS uses. Highlight issues such as City Cats, 60 metre rule on City Cat pontoons, tides and currents, rowing on the correct side of the river, access to the pontoon when slimy, low water and steep angle of the ramp. What to do if an accident or capsize happens.

### 1.5 The Ergometer

Demonstrate on an ergo how the rowing stroke is a never ending cycle of catch, drive, release and recovery. Using a competent rower on an ergo as a reference model, highlight the catch position where arms are straight and shins are vertical, legs tucked under the body in a strong position. Also highlight the finish position at the end of the drive with hands up to the chest, and focusing on the legs, body, arms sequence of the drive to get to a strong finish.

### 1.6 Student Ergo

Let students try the ergo for several minutes each. Correct only gross errors of body movement. Accentuate the rhythm of the cycle, and the 1 unit of time on the drive, and 3 units of time on the recovery, so slide speed and recovery time is proportional to the drive phase.

### 1.7 Initial Row for refreshing students

If time permits, there would be some value in taking students with some previous experience for a short row in a quad or doubles. The focus should be on how to carry a boat, placing it on stretchers, getting in and out of the boat at the pontoon, and picking suitable oars and returning them back to the correct place in the shed. Not intended to be a long session, rather to prepare for Lesson 2 where a full on water session is presented.

**Note**: focus should be made at the pontoon of bow and stroke side oars, direction of the swivel to hold the oar, the correct location of the clamp to hold the oar in place, and location of the foot stretchers relative to the finish in a sculling boat.

### 2 Lesson - The First strokes:

### Objectives:

- Students should be able to place themselves safely and comfortably in a boat
- Learn the "safety position"
- Manoeuvre the boat by using the oars. (ahead, astern, and turning, panic stopping)

### **Key Outcomes:**

- To gain confidence and safety in the boat with safety position and basic balance exercises.
- Develop the correct grip for a sculling boat or sweep configuration
- Be able to turn the oar from square to feather at the correct times.

Key			Completed:
Strategies	2.1	Sculling Grip	
and Activity Guide	wrapp the so demo	the student how to hold the scull oar handle with fingers sed around and thumb on the end of the handle. Demonstrate puared and feathered position. It is preferable to have instration swivel on a boat on stretchers on the hard stand, at the boat is placed in the water.	
	2.2	Putting the boat on the water	
	ponto the oa bow s	students how to put the boat on the water directly from the on without damaging the boat. Once on the water, how to put ars into the swivel gates, and on the correct sides. Highlight ide and stroke side on the water, and the differences with er oars. Let the students put their own boat on the water.	
	2.3	Getting in and out of the boat.	
	damag the ha gently	Instrate how to get into and out of the boat safely, with no ge to the boat. Be cautious of City Cat washes etc. Holding andles, place the outside foot on the foot plate, sit on the seat r, and then put the feet into the foot stretcher. Securing the ecurely. Indicate where to put loose clothing and water bottles	
	2.4	Adjustments	

Once in the boat, indicate how to set the foot stretcher in the correct position. The hands should be 12 to 16 cm apart when touching the ribs at the finish position in a sculling boat. If the student is very short or tall, discuss what adjustments can be made to the swivel

height to compensate for torso size.

2.5 Safety Position  Hold both handles firmly together with the oars perpendicular to the boat and the legs in the down position. The handles can be held with one hand so that adjustments can be made with the free hand. Emphasise the importance of never letting go of the handles at any time, particularly in rough water.		
2.6 Confidence and Balance Exercises		
<ul> <li>Tip the Boat In the safety position, instruct the scullers to try and rock the boat from side to side. (The boat should be solid if they are all holding on well)</li> <li>Rock the Boat Then ask the scullers to hold each handle with one hand and slowly raise one hand while lowering the other hand and vice versa. (this will tip the boat from side to side and demonstrate to the rowers that the boat can roll a fair way without tipping over)</li> <li>Stand up in the Boat Ask the scullers to adopt the safety position once more, and then stand up on the foot plate while maintaining the safety grip with one hand.</li> <li>Correct Grip Remind the students how to hold the oar handle in each hand (fingers wrapped around and thumb over the end of the handle)</li> </ul>		
2.7 Blade Depth  Demonstrate to each student the correct depth the blade will float if the hands are put in safety position, and then they let go of the handles individually. Highlight that the handle height is the same distance above the side of the boat from catch position, through the leg drive and to the finish. Encourage them to look at the blades to see how the hand heights set up the correct blade depth all through the stroke.		
2.8 Rowing with One Hand		
(with legs flat, body still and the other handle on the thigh) get the students to row with one hand for several strokes keeping the blade squared. Discuss the effect on the boat (the boat will turn) and then get them to experiment with the other hand. Check for correct blade depth and flat wrists.		
2.9 Rowing with feathered Blades		
It may be possible to let the rower experiment with feathering and squaring while rowing with one hand.		
Repeat 2.7 and 2.8 above several times with each student individually.		
2.10 Return the Boat and wash it.		

### 3 Lesson - Essential Rowing Skills

### Objectives:

- Two arm rowing with fixed seat
- Be able to stop and turn the boat
- Coxswains able to give basic orders to achieve the above skills
- Retain control of the boat should it capsize

### **Key Outcomes:**

- Confidence to stop the boat and change its direction
- Basic feelings of balance and how it affects the steering of the boat
- Be able to row the boat away from the pontoon, turn and then land safely back at the pontoon
- Ability to recover from a capsize
- Ability to turn the boat around quickly and row backwards.

Key Strategies and Activity Guide	<ul><li>3.1 Revision</li><li>Revise getting the boat onto the water and getting into and out of the boat.</li></ul>	Completed:
	3.2 Turning the Boat  The instructor will discuss the issues in manoeuvring the boat and the issues to be careful of when doing so. For example, getting enough clearance when doing a U turn near the bank, being aware of City Cat multiple washes, waves bouncing off the bank, going through a wash while turning.	
	<ul><li>3.3 Stopping the boat.</li><li>The instructor is to reiterate how to "check" the boat from speed to fully stopped. Be aware of blades that are too deep on one side and the chance of tipping over.</li><li>Emphasis the need to be certain of the ways to control and stop</li></ul>	
	the boat and the benefits of balancing the boat to enable stopping and turning to have the best effect.	
	<ul> <li>3.4 Returning to the Pontoon</li> <li>If you are returning to the pontoon the safest way to approach is</li> <li>Make sure you are coming into the pontoon against the current. If you stop rowing you should drift away from the</li> </ul>	

pontoon on the path you have just travelled.

Line up the bow ball at least 40 metres out from the

- pontoon, and about one metre into the river, so the boat is parallel as it approaches the pontoon.
- As the bow passes the end of the pontoon, gently lean al rowers away from the pontoon to raise the riggers and the oars on the side of the pontoon.
- If the rowers check the blade on the other side of the boat, it will help to push the boat into the pontoon gently.
- Get all students to hold the pontoon, and then have one pair get out quickly and hold the riggers while the other pair under the outside riggers and release their oars.
- Swap the rowers over so that the first pair can safely get their oars out, while the second pair hold the boat from the pontoon.

### 3.5 Capsizing a Boat

Discuss how a boat can capsize, particularly at the pontoon. Discuss what will happen. The boat will fill up with water and become very heavy, it is very easy to damage in another boats wash, rowers will fall out and be in danger if they are not prepared.

**Note**: If a capsize does happens, all rowers in the water should always stay with the boat until it is safe to roll it back over, or help arrives.

### 3.6 Feathered Rowing with Both Oars

For each student individually, start rowing with:

- Legs flat, arms only, and no body swing, arms straight out and the blade in the water
- Draw the handle to the body and release the blade from the water with square blades then feather.
- Keep blades on the water during the recovery and hands at the same height
- Left hand is slightly in front and above the right during the recovery
- Repeat the drill but allow the student to balance the boat as they move their hands.

### 3.7 Coxswains Orders

Explain to coxswains and rowers the instructions needed to order the crew to do any of the above exercises.

### 3.8 Return the Boat and wash it

### 4 Lesson - Basic strokes - Using the Legs

### Objectives:

- Demonstrate the ability to row continuously at short slide lengths (1/4 and 1/2)
- Demonstrate an ability to perform and understand the key points from the previous lessons
- Demonstrate the ability to row continuously at short and full slide lengths
- Row with exercise / drill at the 3/4 slide position
- Be able to row 500m continuously and in a straight line
- Aim to row 1 to 2 strokes with blades off the water on the recovery

### **Key Outcomes:**

- Be able to demonstrate short slide rowing at various lengths with ease
- Able to demonstrate short slide checks
- Able to distinguish more power applied with the body and legs rather than with the arms only.
- Able to demonstrate short slide rowing at various lengths with ease
- Able to control the boat at speed

Key	
Stra	tegies
and	Activity
Guio	le

- the recovery. Once the arms are straight the body swings forward.
- Complete single strokes only, then discuss if necessary, hand heights, blade depths, rhythm etc.

		Completed:
4.1	Revision Quiz	
	the boat is on the water an safely away from the pontoon lowing questions should be asked:  Name the parts of the boat  Demonstrate the "safety" position  Demonstrate the ability of the crew to stop and change the direction of the boat  Verbalise the procedure used if the boat capsizes	
When	<b>Boat Demonstration</b> the boat is on the water, the students watch an	
•	enced rower demonstrate the correct position for body , slide length, and each ¼ slide and ½ slide position.	
4.3	Introducing the body swing	
•	The student sits forward with arms straight and body swung forward	
•	The body swings back and the arms finish the stroke At the release, the body is held still and the hands begin	

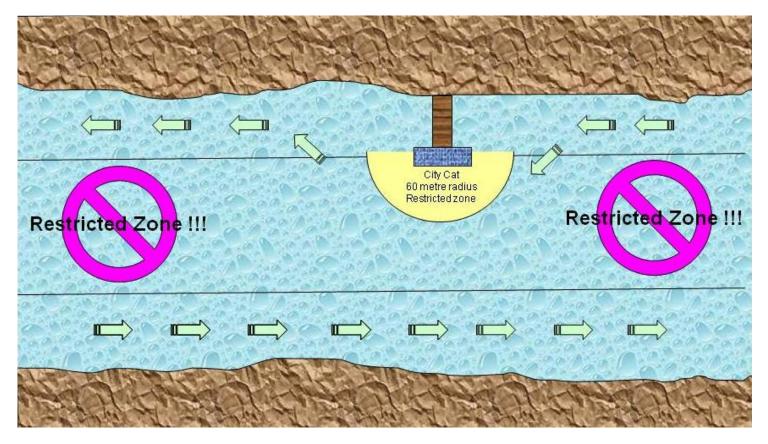
### 4.4 Practising Boat Manoeuvring Students to practise rowing and general boat manoeuvring using one and two arms and body swing. 4.5 Using the Legs Short slide length rowing should be done at a slow pace in the initial stages. This allows plenty of time to get the idea of using the blade with not much rest between strokes. To introduce slide work into the stroke: The student sits reaching forward with arms straight, body swung forward and the legs at 1/4 slide - the blade is in the water. The legs push until flat then the body swings back followed by the arms completing the draw. The recovery sequence is hands away quickly ... body rock forward....slow on the slide to the catch position. The slide is not broken until the hands are over the knees and the body swung forward Complete single strokes only then try continuous strokes at a slow pace Repeat above for ½ slide with emphasis on hands.... body.... slide on the recovery in a smooth movement as confidence increases. 4.6 1/4 Slide Check At this stage, the students are to practise checking on the travel forward on the slide at the 1/4 slide position. As the student approaches the ¼ slide position, the rower should feel as if the hands have led the arms away from the body and then stopped, just as the legs start to bend and the seat rolls forward. The instructor is to emphasize the need to keep the handle at a constant height that exactly matches the handle height of the person in front of them. Once the command to "row!" has been given, the travel forward to the catch is done in a controlled and even manner. 4.7 **Crew Combinations** Initially students should row in pairs in a quad or 4's in an eight to ensure good balance and technique.

While a student is not rowing they are required to maintain very gentle positive pressure on a feathered blade on the water to

help keep the boat vertical.

4.8 ¾ Slide	
Students are to practise rowing using the ¼ and ½ slide lengths in a warm up session. Emphasise that body and arms must be in the "catch" position when the rower reaches ½ slide on the recovery. Then students can move onto the ¾ slide (hands have led the arms away from the body and are remaining over the top of the shins)	
In a quad or 8 in the initial stages students are to work in pairs or fours to ensure good balance and technique Then at a reasonably steady pace, move into rowing in fours or eights. Short slide length rowing should be done at a slow pace in the initial stages. This allows plenty of time to get used to using the blade with not much rest between strokes.	
4.9 Full Slide	
Students are to row at full slide where the legs are fully tucked up in the catch position at full reach forward.  Emphasise:  Slow slide on the recovery  Blades on the water during the recovery  Correct sequence of movements for the drive and recovery	
4.10 Row a straight course	
Set a straight course (pick landmarks behind the boat). Aim to row continuously along the line seen by the stroke seat as straight as possible. Not only is it important to row the shortest distance, but it is vital for safety reasons.	
4.11 How few strokes?	
Count how few strokes can be done over 500 m markers between GPS and Victoria street (yellow paint on the rocks) This teaches clearance between strokes, and provides some feedback on how much effort needs to be maintained continuously to keep the boat moving.	
4.12 Return the Boat and wash it.	

### Rowing Qld Inc - River Rules for Rowers.

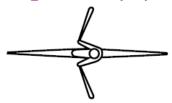


- 1. Rowers should heed the above traffic flow with particular notice paid to the Restricted Zone. If you need to enter this zone to avoid a collision, or cross the river, then it should be exited at the earliest safe opportunity.
- 2. As well, particular attention should be paid to:
  - a. City Cat Terminals 60 metre restricted zone.
  - b. All corners
  - c. William Jolly Bridge (middle span not to be used)
  - d. Rocks opposite Yeronga Corso
  - e. Red buoy at Dutton Park.
- 3. If you are on the water before sunrise or after sunset, your craft needs to carry a flashing white light that can be seen from 360 degrees. This will require a light on both ends of the boat, or on the top of the head of a single sculler if the light does not impact on the ability of the rower.
- 4. If you cannot swim or suffer from a medical condition that may jeopardise your well being in a rowing boat, advise your coach or club captain so that adequate procedures are in place.
- 5. Care must be taken by crews around all pontoons.
- 6. When leaving or retiring to a pontoon crews must cross directly across the river, as close as possible to right angles to the bank.
- 7. When boating, all 'fixing up' should be done as close to the bank as practical so passing crews are not obstructed.
- 8. Crews being overtaken should alert the other crew by shouting to the overtaking crew and move aside as soon as practicable to avoid collision. Stationary crews should also be as close to the bank as practical, out of the way of passing crews.

- 9. Crews departing or retiring to a pontoon on the incorrect side of the river (due to tidal considerations) should be on the incorrect side of the river for a minimum time and distance, i.e. within 100m of the pontoon. Crews on the incorrect side of the river must operate with extreme care, take every precaution and maintain a good look out to avoid a collision with other oncoming boats. Be prepared to yield to all oncoming craft and operate as close to the bank as possible.
- 10. When changing direction crews are to proceed to the opposite side in the shortest possible route and give way to all traffic.
- 11. Official competition has right of way during the designated regattas, for the length of the competition course.
- 12. Offensive language is not acceptable at any time.

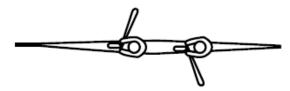
### **Rowing Shell Terminology**

### Single Scull: (1x)



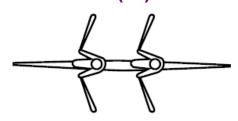
The smallest of boats used in the sport. The single shell is used by one sculler with a sculling blade(oar) in each hand. Training in a single may be the best overall method to learn to row.

### Pair (2-)



A shell rowed by two athletes, each using a sweep oar.

### **Double Scull (2x)**



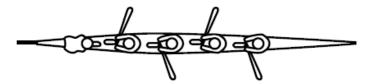
A shell in which two scullers row using a set of sculling oars each.

### **Coxless Four (4-)**



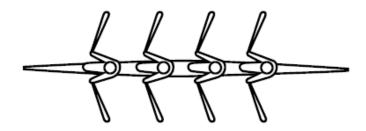
A shell in which four athletes row, each using a sweep oar. The rower in the bow seat or the stroke seat of the boat steers with a rudder by a tiller wire attached to the toe of one shoe.

### Coxed Four (4+)



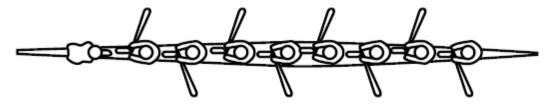
A shell in which four athletes row, each using a sweep oar. A coxswain steers the boat and calls the commands. The cox can in the stern or bow of the boat.

### Quad Scull (4x)



A shell in which four scullers row, each using a pair of oars or sculls.

### **Eight (8+)**



The largest of all rowing shells. It is manned by eight rowers, each using one sweep oar. A coxswain steers the boat.

### **BOAT MATERIALS:**

Wood was the material of choice for constructing rowing shells from the 1880s to the 1930s. In the mid-1970s, a Canadian rowing shell builder constructed the first wood shells that had a smooth exterior. A plywood 'skin' was shaped and then glued to a wood mahogany frame using epoxies - eliminating the ribbing, and exterior tacks common to other shells.

In the mid-to-late 1970s, the first fibre-glass shell was perfected. The popularity of the fibre-glass shell has increased until the mid-to-late 1990s when the major boat makers eased out of hand crafting wood singles.

Rowing shells in the late 1990s are formed in moulds and baked in large ovens at high temperatures to cure the epoxy resins - making the shell more rigid and stiff. Modern shell materials include carbon, kevlar, and fibreglass. There is very little if any wood left in a modern rowing shell

### Some Standard Rowing Terms from the Rowing Qld Web Site:

Blade Flattened or spoon-shaped end of oar or scull; often used as term for oar

Bow Forward end of boat

Bow ball Safety ball fitted to sharp stem of racing boat

Bowside All rowers whose oars are in the water on the right hand side of the boat

(starboard) when viewed from the stern

Button Plastic sheath on oar to prevent it from slipping through the rowlock;

adjustable on modern oars

Canvas The canvas on fore and aft decks of a boat; in race verdicts, the distance

between the bow ball and the bow man's stateroom.

Catch The part of the stroke when the blade is put in the water

Coxswain Steers the boat from the seat in the stern or a lying position in the bow
Crab Occurs when the rower fails to get the oar out of the water at the end of the

stroke; can result in the rower being ejected from boat to water

Drive The part of the stroke between the catch and the finish

(Pull-through)

Feather To turn the blade parallel with the water surface at the start of the recovery

to reduce wind resistance

Fin Small flat plate perpendicular to the bottom of the boat to aid steering a

straight course

Finish The part of the stroke just before and as the blade is taken out of the water

(release)

FISA Federation Internationale des Sovietes d'Aviron; the International Rowing

Federation

Gate Bar across a rowlock to retain the oar

Gunwale Horizontal plank at the top of the hull running the length of the boat Hands away The act of dropping the oar handle at the finish of the stroke so that the

blade leaves the water and is feathered at the start of the recovery;

sometimes referred to as "out of bow"

Inboard The distance between the far end of the handle of an oar or scull and the

face of the button. The remainder is called the outboard

Length The length of a boat (i.e. "They won by one length")

Oar A lever approximately 3.60m long by which the rower pulls against the

rowlock to move the boat through the water

Puddles Whirls left in the water caused by the blade as the rower pulls

Rating (beat) The rate of stroking, or the number of strokes per minute that a crew is

rowing

Recovery The part of the stroke cycle between the finish and the catch in which the

oar is feathered and the seat is returned to the aft end of the slope

Regatta A competitive event raced in boats

Repechage A second heat to afford another chance of qualifying to those running

second best in preliminary heats

Rhythm The proportion of time occupied on the recovery to the time taken on the

pull through

Rigger A metal framework or a carbon-fibre reinforced arm to support the rowlock

which is placed approximately 7600 mm from the centre of the boat

Rowlock A bracket which swivels on the end of the outrigger to support the oar

(oarlock)

Rudder Steering device attached vertically to the stern or under the hull of a shell

Run The distance a boat travels in one stroke

Sculling Using two oars or sculls

Shoulder Reinforcement structure in the cockpit to support the attachment of riggers

Slide Parallel rails in which the seat moves on wheels

Standard rig Uniform alternation of riggers (and therefore oars and rowers) in the boat;

the rower in the seat nearest the stern is usually on stroke side

Stern The rear or aft of the boat

Stretcher A frame with straps or shoes to anchor the rower's feet

Stroke The complete cycle of moving the boat through the water using oars or

sculls; the rower seated nearest the stern

Stroke side All the

(port)

All the rowers whose oars are in the water on the left hand side of the boat

when viewed from the stern

Washing out Occurs when the blade comes of the water during the pull-through before

the finish

Catch



 Maintain straight and relaxed arms and wrists with the tall braced trunk position.

 Suspend the trunk from the handle and push off the feet to move the hips and trunk towards the bow.

Primary power source is generated by the legs.

Trunk begins to open at the hips.

Blade and seat 'catch' the water in a continuous

independently rising to place the blade in the

Shins vertical, knees shoulder width apart.

Trunk compressed to thighs.

Arms and wrists are straight and relaxed,

Shoulders extended with nose over toes.

Tall, relaxed and braced trunk position.

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# Finish

- Bracing is completed of the legs and trunk.
- Pressure is maintained on the foot stretcher.
- Front of the shoulders remain behind the seat, chin is behind the handle.
- Arms with flat wrists complete their acceleration towards the lower chest.

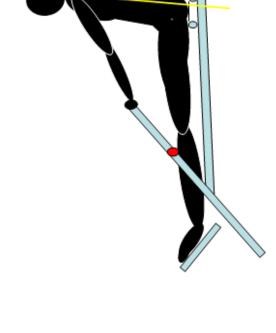
Even blade depth is maintained as long as possible.

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Early Recovery

### Release



- Hands lead relaxed arms away from the trunk.
  - Hands move in a horizontal plane towards the stern.
- Legs remain extended until the hands pass over the knees.
- Relaxed trunk begins to move towards the stern.
  - Weight even on relaxed feet.

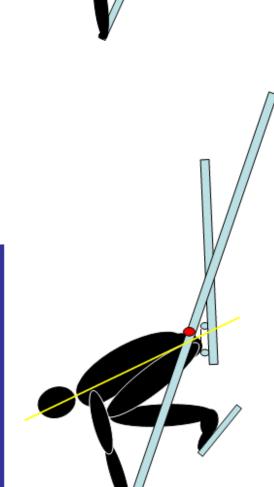
- Hands move down to release the blade from the water.
  - Shoulder and elbow heights remain stationary throughout the independent hand movement.
    - Relax grip as the blade becomes 'feathered'.
- Hands should move through the finish and release at an even speed.

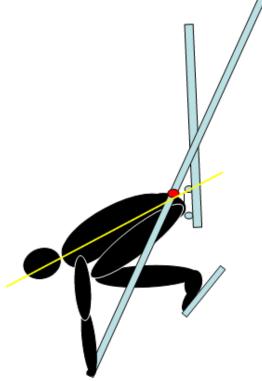
Have a clear picture in the mind of

the catch.

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## Full reach





Tall, relaxed and braced trunk position.

Tall, relaxed and braced trunk position, arms and wrists

- Shoulders extended with nose over toes.
  - Trunk compressed to thighs.
- Shins vertical, knees shoulder width apart.

ndependently rising to place the blade in the Arms and wrists are straight and relaxed,

Blade and seat 'catch' the water in a continuous

movement from the body to place the blade in the water. Shins vertical, knees shoulder width apart, pressure is Blade is squared and ready to be placed in the water. Prepare to place the blade at optimum length. Hands are prepared to rise in an independent Shoulders are extended with nose over toes. Seat is stable preparing for the drive phase. felt through the balls of the feet. are straight and relaxed.

Check List for Graduation Certificate:		
Completed LTR Application Form at Lesson 1		
Demonstrate knowledge on what to do in the event of a capsize, boat damage or injury, as specified in the GPS Risk Management Plan		
Be able name parts of the boat and oars		
Able to competently carry a boat from the shed to stretches, from stretches to the pontoon, place the boat in the water, recovery from the river and back to the shed.		
Able to get in and out of a boat safely		
General boating manoeuvres including:		
Launching the boat from the pontoon		
<ul> <li>Turn the boat 360° in one direction and then the other</li> </ul>		
Row the boat backwards and forwards in a straight line		
Emergency stop of the boat		
General Rowing to Include:		
Rowing continuously with full slide		
Rowing with variable length slide in a warm up		
<ul> <li>Rowing with the correct ratio of drive: recovery (1:3)</li> </ul>		
Basic Drills to be learnt to include:		
Square blades		
Delayed feather		
Single strokes		
One part rowing or pause on the recovery		



and recreation