

## NEWSLETTER

OF THE WORLD SWIMMING COACHES ASSOCIATION phone 954.563.4930 fax 954.563.9813



Coach Michael Ursu, Executive Director of the Australian Swimming Coaches and Teachers Association for the past decade, is retiring in July of 2005. Michael also served as WSCA Executive Director for 8 years, and did much to create excellent relations between WSCA and FINA. We appreciate his dedication to the advancement of coaches. He is pictured here (left) with John Leonard of the American Swimming Coaches Association and WSCA Board of Directors at his retirement celebration in April at the ASCTA Conference on Australia's Gold Coast.

American Swimming Coaches Association World Clinic September 5-11, 2005, Fort Lauderdale, FL

> World Swimming Coaches Association Board Meeting - August, 2005, Mexico

WSCA Europe Swimming Coaching Clinic September 30-October 2, 2005, W. Midlands

# Swim Like a Fish A useful principle for swimmers?

- By Felix K. Gmünder

#### Forget raw power

If you want to swim really fast, stop thrashing about, relax and feel the water. Olympic coach Gennadi Touretski tells Daniel Drollette how to torpedo the opposition.

**Popov seemed to slide effortlessly through the water,** elbow bent overhead in classic freestyle
position, long arms slicing forward with elegant
ease. In contrast, Klim crashed ahead with his arms
locked straight as they emerged from the water in his
trademark "windmill" version of the freestyle. Each
man's style is unique, but both are world-beaters.
And both are the products of the unorthodox ideas
of the same coach, Gennadi Touretski.

**Touretski, a colourful and sometimes controversial character,** studies the motion of fish and writes physics equations on the whiteboard of his poolside office to explain the principles of hydrodynamics. His brand of science-based training has done much to promote the idea that it is not raw power that makes champion swimmers, but efficiency. Klim and Popov are taught to behave like fish, to "feel" the water and glide through it.

Touretski is a product of the old Soviet system, in which as many as eight scientists would monitor the performance of the national team. He is a former swimming champion with a degree in engineering and training in biomechanics, biochemistry, fluid mechanics and sports physiology.

#### Touretski's swimmers swear by him.

It was Touretski's idea, for example, for Klim to switch to the windmill style. "I've made straight personal bests ever since he made me make this change," said Klim. Popov is just as enthusiastic: "He's the reason I left Russia." Popov and Klim have the status of pop stars in Australia, but amid all the hysteria, the question remains: how do Touretski and his swimmers do it?

The answers, says Touretski as he paces the poolside, lie partly in genetics and partly in technique. Elite swimmers tend to be born with certain advantages, such as superefficient metabolisms. Some long-distance swimmers, for example, have cardiovascular systems capable of delivering twice as much oxygen to starved muscle cells as the average fit young person, giving them an advantage before even entering the pool.

Olympic swimmers also tend to be tall and long-limbed.

When seen on land, both of Touretski's swimmers are as long and lanky as basketball players. Klim is 1.91 metres tall (6 feet 3 inches), and Popov 1.97 metres (6 feet 6 inches). The pair are designed for swimming. Or, as Touretski told them: "You have something given to you by God. You must develop it." Fair enough. But how?

There are two ways to swim faster, says Touretski: increase the force that swimmers use to propel themselves through the water or decrease water resistance. To propel yourself through the water faster you might, for example, increase your stroke rate. But there's a problem here, Touretski says. You'd soon run out of steam.

What's more, increasing stroke rate inevitably means taking shorter strokes, which is at odds with how most animals behave. When they want to move faster, they increase the distance covered with each movement. Touretski points to video clips for support: horses, Touretski points out, speed up by increasing the distance they cover with every stride, not by increasing the number of strides per second. Kangaroos do the same hopping on their two feet. Touretski believes swimmers should do what animals do, stretching as far forward as possible to get the longest pull with each stroke.

So if increasing stroke rate isn't the answer, what about pulling harder and bulldozing through the water? Until the 1980s, swimmers and their coaches focused on power. They took inspiration from mechanical models such as propellers and paddle wheels. The typical swimmer had shoulders like a Bulgarian weightlifter, and the emphasis was on lots of long-distance training sessions, according to renowned coach Cecil Colwin, author of Swimming into the 21st Century. The science of biomechanics "has been incorrectly focused on emulating the actions of mechanical propellers instead of . . . mechanisms more akin to natural flight and fish propulsion", he wrote.

**Touretski agrees with Colwin,** for reasons based on physics. Fluid dynamics tells us that drag depends upon form and friction. Dolphins swim as fast as they do, for example, because they have a streamlined shape and because their skin is designed to reduce friction by stopping the formation of energy-sapping eddies around their bodies.

## **Making waves**

But the real killer for competitive swimmers is a third type of resistance that arises at the interface between air and water- wave drag. Moving along the surface of the water inevitably creates waves. Physically speaking, swimmers force a mass of water in front of them to rise up against gravity. This not only robs swimmers of energy, but it has a disproportionately greater effect the faster they go.

And it gets worse if a swimmer makes jerky or uneven movements, either bouncing in the water or moving from to side, because this wastes still more energy making waves. Because of this, Touretski believes that trying to increase speed by propelling yourself harder through the water is pointless beyond a certain point. "More propulsive force will only produce higher waves, not higher velocities," he says.

If you can't beat water into submission, Touretski argues that it's better to learn how to avoid its obstructive influence. For a start, reducing friction with the water is important. This is one reason why Klim shaves his head. Form or shape is also a factor. For swimmers this means streamlining themselves with tricks such as pushing the head and chest down into the water, and rolling from side to side with each stroke. To avoid wave drag, Touretski urges swimmers to eliminate jerkiness in their stroke. (One of the other curious consequences of wave drag is that it penalises short swimmers more than it does their taller rivals.)

To achieve a reduced resistance technique, Touretski's swimmers are trained to improve their balance, locomotion and "feel" of the water. The emphasis during training is on quality of performance rather than mileage. His idea is that with constant repetition, precisely practised movements become second nature-like reflexes.

To work properly this training method demands meticulous attention to detail. "If you can't do it exactly right, don't do it at all," Touretski says. He'd rather have his swimmers do a few movements properly than do a lot of movements incorrectly.

**So much time is spent on proper technique that by Olympic standards,** Klim, Popov and the rest of Touretski's squad have relatively leisurely workoutsthough they still swim about 70 kilometres a week.

### Slowly does it

Part of what we saw is Touretski's "superslow swimming" method. Touretski demonstrates by walking across his office in exaggerated slow motion. By moving extremely slowly, he has to concentrate on the exact placement of each muscle. Balance becomes imperative. "People are more wobbly when moving very slowly and they have to constantly shift weight to get their balance right," he says. The same applies in the pool, and when swimmers can travel smoothly at a very slow speed, they can move more smoothly at high speed.

Superslow swimming also forces swimmers to concentrate on extending their arms as far as possible, to get maximum range on each stroke. And it improves a swimmer's ability to relax at higher speed. Relaxation is often overlooked. Touretski elaborates: "Not all muscles are switched on at the same time. There's a wave of muscles contracting or relaxing simultaneously." Learning to relax the muscles that are not in use saves energy and staves off fatigue.

Training at slow speed also helps the swimmer hone the all-important intuitive "feel" of the water to anticipate, control and manipulate its flow. Swimmers get quite mystical when describing this ability, like artists describing "a good eye" for painting. To a swimmer, "feel" lets you know when you've properly caught the water with your palm and pulled your body forward with minimal resistance.

If superslow swimming does not help to develop this sense, Touretski tries the opposite approach, using his towing machine. This pulls swimmers through the water at high speed, so they get a heightened sensation of what happens when they position their arms and legs properly. It's like holding your arm out of the window of a moving car-when your palm is held vertically you feel the wind resistance pushing it back. Rotate it 90 degrees and your hand knifes through the air.

To move at a constant speed, one arm should always dig into the water as the other comes out. To get their arms moving in synchrony, Touretski has his swimmers practise a "kayak manoeuvre" in which they stand on the poolside with a double-bladed kayak paddle and take an imaginary trip. Popov demonstrates how, as he paddles, one arm is always doing the opposite of the other. Once again, Touretski's swimmers drill in this manner until the technique becomes second nature.

These unusual drills and training methods seem to pay off. Touretski's swimmers don't waste much energy in creating waves. Besides the evidence of all his success, a study by Sergei Kolmogorov, head scientist of the Russian team, has shown that Popov's smooth technique allows him to consume 30 per cent less energy than other swimmers moving at the same speed.

Touretski hopes to improve his swimmers' technique still further. "I think Michael [Klim] will look better over time. He's still learning, still growing. I'm fighting for beautiful technique," he says. "Beauty and perfection are quite close." ●

Daniel Drollette is a freelance science writer in Australia on a Fulbright fellowship.

# **Effective Learning Strategies Tips and Techniques**

- By Coach Shev Gul, BSc, Fellow ASA Ficts(cc), ASCA, London, May 05

Dedicated to all those early rising swimmers, pupils, athletes -and coacheswho also have to find some quality time for their academic excellence too..... sg

"How to Learn Is More Important Than What to Learn"

(Natural way learning, A.L. fundamental)

#### STUDY PLANNING

- Make a list of the key topics to be covered
- Work out how many days can you allocate to your studies. Say, 15 or 30 days...
- Distribute these topics throughout the number of days available for your studies
- Make a draft distribution initially, and leave it aside for a day or two
- Make adjustments to the roughly prepared plan.
- Single out priority topics, etc.
- Now you have a `plan of learning` action which will boost your confidence and make you in control.
- Then proceed with the fine-tuning of your study plan
- Make an hourly study plan corresponding to each day
- Build in your daily study plan, a quality time for relaxation, play and laughter (is the best medicine!)

### **MIND-BODY PREPARATION**

Mind Calming and Relaxation Techniques - prior to commencing learning/study.

Yoga Breathing

Paying attention to your body's natural rhythm - breathing

You may find the following self-talk helpful;

"With each breath I take I can become more aware of the natural rhythms of my body and the feelings of comfort that follow."

(repeat 3 times slowly)

Recalling a happy learning experience

- Relive again the full VAKOG of that past happy memory
- See it, Hear it , Feel it -by slipping inside that old memory

- Do a self affirmation talk reminding yourself "how a capable learner you are"
- And "learning is going to be easy and enjoyable again"
- You are ready motivated and stimulated for another meaningful learning experience.

#### STUDY TECHNIQUE

Learning is most effective and sticks-stays with usbest when it is done in a way that is compatible to our brain's natural way of learning and processing information i.e.

- When it is learned in a relaxed and playful mode
- Through curiosity (the way a child learns total immersion)
- By using our multi sensory channels (VAKOG)
- VAKOG- Our Visual, Audial, Kineasthetic, Smell and Taste-sensory channels
- In a fun-creative way (say, through collaboration).

## **HOW TO MAKE OUR LEARNING PERMANENT**

How can we ensure that our study and learning experience will serve us well (i.e., that we will be able to recall and remember it effortlessly) when it comes to our judgment day of Exams, Tests, Races and Competitions - let's rename them as being our moments of; "celebration of our learning, self-discipline, purposeful preparation and hard work" efforts.

## Our learning can be made permanent and meaningful when;

After each 30 min of study we take 5-10 min of break

Make yourself a hot chocolate drink, play with your brother or sister, give a cuddle to your mum and dad; tell them how much you love them, listen to your favourite group`s CD (mine is Beach Boys-Good Vibrations, Surfing!), play with your

pets (not spiders and snakes!), share a joke, look at your holiday pictures, polish and count your swimming medals and awards, etc.

Spend 2 min reviewing that material you have covered half an hour ago.

Keep repeating the above study /learning pattern for the duration of your allocated study time. Making mini notes, mind maps and sketches as you study the topic/material. Make them colorful, outrageous and standing out!

After the study period, relax by listening some baroque music or have a power nap of 5-10 min (yes, do not be embarrassed to have a mini sleep during the day time too!). Your CPU will be grateful and will reward you for that!

Before going to bed, spend ½ hour reviewing your mini-micro notes, mind maps and sketches....make them interesting, eye catching, funny.

Treat yourself to a good and uninterrupted 8 hours sleep (yes, eight hours!).

During our sleep-time, our previous days learnings are consolidated, i.e., All the previous days activities and experiences are sorted out, coded, processed and filed away in our short and long term memory bank vaults...

First thing in the morning, spend another ½ hour only reviewing your micro-mini notes, mind maps, sketches, etc, on the material studied the previous day

Your short and long term memory banks have been nourished again.

Keep the above resourceful learning pattern/ sequence for every day, every week and every month of your studies.

#### **Revision Time!**

A week or a few days prior to your exam, test, competition and race, just going through your mini notes, mind maps, sketches, etc., will help you perform even better.

You are confident, self-assured and ready to celebrate your learnings i.e., exams, tests, races and competitions will be rewarding for you.

You can say now, goodbye to exam blues too!...

It is true;

"when we see our studies and revisions as just another curious intention to discover and to find out about the subject-topic matter, we notice our concerns about the future exams just dissolve naturally".....sg

Well done and good luck! ●



By Coach Shev Gul

London BSc, Fellow ASA Club Coach Fistc(cc), ASCA, A.L.& Nlp Practitioner

For more information on A.L.-Accelerated Learning Methods & Techniques, advice and consultancy by the trained A.L. practitioner Coach Shev Gul, contact: <a href="mailto:gulshev@aol.com">gulshev@aol.com</a> www.swimmtech.com

PS- Thanks to my med student daughter, Hanna's annual exam tantrums, for stimulating me to write the above notes!...

## **Inaugural**

## **WSCA Europe Swimming Coaching Clinic**

30th September ~ 2nd October 2005

## The Ramada Hotel, Sutton Coldfield, W. Midlands



## **Major Speakers:**

Tracey Menzies (Australia)
Coach to Ian Thorpe
Bill Rose (USA)

Mission Viejo Nadadores, Bruner ('76) to Jensen ('04)

## Plus presentations by:

<u>Fred Vergnoux</u>, (French Age Group Development)
<u>Adrian Moorhouse</u> - Good Swimmer-v-Great Swimmer
& much much more.

 ${\it SwimTec Heartrate UK are the sole retail outlet for BSCTA products.}$ 

For full details and a booking form please visit: www.bscta.com Coaches requiring more information, please phone the BSCTA Office on: (+44) 121 550 4888

# The 4th Gold Medal Swim Coaches Clinic!

Acapulco, Mexico

August 17-20, 2005

The Clinic cost will include the Clinic Registration, hotel room and all meals (buffet style). Costs are for the four night stay. The Hotel is the Acapulco Crown Plaza.

# TO REGISTER ONLINE GO TO: www.goldmedalclinic.com.mx

## **INVITED SPEAKERS**

Among the renowned speakers that have been invited to present we find: Bob Bowman (Michael Phelps), Mike Bottom (Gary Hall), Frank Busch (Amanda Beard and 4x100 South-African free relay), David Marsh (Kirsty Coventry), Teri McKeever (Natalie Coughlin), Eddie Reese (Aaron Peirsol, Brendan Hansen, Ian Crocker), Jacco Verhaeren (Pieter Van den Hoogenband), Pawel Slominski (Otylia Jedrejczak), Nina Kozhukh (Yana Klochkova), Sava Doina (Camelia Potec), Shannon Rollason (Jodie Henry), Tracey Menzies (Swimmer Ian Thorpe, Gold 200 and 400 Freestyle), Denis Cotterell (Swimmer Grant Hackett, Gold 1500m. Free), Glenn Beringen (Swimmer Petria Thomas, Gold Women 100m. Fly) and the coaches of Xuejan Luo (CHN), Kitajima Kosuke (JPN), Ai Shibata (JPN) and Laure Manadou (FRA).

## THE 2005 ASCA WORLD CLINIC SEPTEMBER 6-11 FORT LAUDERDALE, FLORIDA

The 2005 ASCA World Clinic will be held on September 6 through 11 in sunny Fort Lauderdale, Florida, at the beautiful Marriott Harbor Beach Resort. This magnificent hotel is located directly on the world famous Fort Lauderdale beach, just a 10-minute walk from the Hall of Fame Aquatic complex. A wide range of ASCA schools will be offered on Tuesday and Wednesday, followed by the full clinic program on Thursday through Saturday. Additional schools will be offered on the final Sunday. Come early! Stay Late! Bring your family and enjoy the beautiful beach and all the amenities of the Marriott Harbor Beach Resort and Fort Lauderdale area.

Registration is available online at the ASCA website: www.swimmingcoach.org.

The main clinic program will consist of USA Speakers such as Eddie Reese, Mark Schubert, Glenn Mills, Bill Sweetenham, George Block, Pat Hogan, Tom Avischious, Bill Schalz, Mick Nelson, John McIlhargy, Richard Quick, Tammy Hopkins, Michael Brooks, Phil Emery, Dick Hannula, Pete Higgins, David Gibson,

Bob Bowman, and Ray Benecki. For the SwimAmerica Conference the speakers will be the following: Mark Worden, Tom Evers, and Rhonda Flatz-Byers.Plan NOW to attend this remarkable event! Room Rates are just \$115 for this fantastic seaside resort. Call 1-800-228-9290 for reservations.

Best Regards,

John Leonard, ASCA Executive Director

## EARLY REGISTRATION FORM FOR THE 2005 ASCA WORLD CLINIC FORT LAUDERDALE, SEPTEMBER 6 - 11, 2005

REGISTER	Life Plus	Current ASCA Members	New/Renew US ASCA Members	New/Renew International Members
Regular Registration May 11 – September 2	:		□ \$264	
On Site Registration	□ Free	□ <sub>\$299</sub>	□ <sub>\$364</sub>	□ <sub>\$399</sub>
or fill out the order f	/, Septemb CA Coach N 1-800-35 form belo	per 6, 7, and 11 w Members in early 6-2722 or go o w and send to:	rill be available in the May and at www.sw	e Complete Registration vimmingcoach.org.  mmingcoach.org g Coaches Association,
Name				
Mailing Address				
Mailing Address			Zip	
_		_ State		
City		_ State Ema	il	

## **Energy Intake**

## For Distance Workouts, Count Carbs IN

Highs and Lows of Carbohydrate Diets
- Gatorade Sports Science Exchange 93, 2004, Vol. 17, No.2

Since carbohydrate is the body's main fuel source during endurance exercise, it's important to begin an endurance event with plenty of it in the system. The body stores carbohydrate as glycogen in the muscles and liver, and slowly depletes those stores as the marathon miles pass.

Distance runners, then, whether competitive or recreational, are not likely to believe that cutting carbohydrate from the diet is the cornerstone of healthy eating. Still, the midpack marathoner looking to shed a few pounds may well have come across statistics that make some versions of these diets seem tempting. Research shows that in the first six months of a low-carb diet (20 to 100 grams daily), obese people can lose twice the weight and fat of *low-calorie*, *low-fat*, high carbohydrate dieters. As with all foods, there is a limit to the utility of carbohydrate consumption, even in endurance athletes. What, then, is the right amount of carbohydrate to consume-both daily and during a long run or race? With carbs, how much is enough?

When planning your carbohydrate intake, think grams per day rather than percentage of total calories. Interval training and easy long runs will deplete glycogen similarly, but these workouts use substantially different caloric amounts. Your caloric need will vary even further between training and recovery days. For athletes in periods of heavy training, a good rule of thumb is to consume three to five grams of carbohydrate per pound of body weight per day. Low-mileage runners and smaller people can get away with up to a third less. A 120pound recreational marathoner needs perhaps 200 grams of carbohydrate daily. If this were a competitive athlete, the number would be closer to 400 grams daily. A competitive, 170-pound runner might range between 500 and 700 grams daily.

This may seem like a lot of carbohydrate. A pound of cooked pasta contains only about 126 grams of carbohydrate. A quart of Gatorade contains 56 grams. That's a lot of food to still place you firmly on the low end of the scale, but fruits and vegetables, sauces, condiments and even milk all contain additional carbs. A cup of pasta sauce contains 14 grams; a serving of peanut butter seven grams; salsa and ketchup have about four grams each per serving, and at two tablespoons, a serving of salsa is quite small.

Two slices of rye bread contain about 28 grams of carbohydrate, the amount in one performance gel. The bread in a large, thick sub has approximately 72 grams.

Fruits and vegetables are carbohydrate rich foods that also contain a great deal of other nutrients, and it is widely known that you should eat them in plentiful amounts. But don't cut potatoes, bread and pasta from your diet. The cult of carbohydrate cutting notwithstanding, world nutrition experts assembling recommendations for the International Olympic Committee advise choosing foods high on the glycemic index as your major carbohydrate choices, especially for recovery meals.

When planning your carbohydrate intake, think grams per day rather than percentage of total calories. Interval training and easy long runs will deplete glycogen similarly, but these workouts use substantially different caloric amounts. Your caloric need will vary even further between training and recovery days.

The 24 hours prior to a long run or marathon are particularly crucial for building glycogen stores. Similarly, it takes 24 hours after an event to replenish those stores. Meals on a day of heavy marathon training should follow these guidelines:

Divide the number of hours prior to exercise by two to find the amount in grams of carbohydrate you

should consume per pound of body weight. This ensures that you properly decrease the size of the meal as the time before exercise decreases. Ideally, four hours before exercise, you would consume two grams of carbohydrate per pound of body weight. If you only have one hour to go, you should only consume one half gram of carbohydrate per Pound.

Again, as a practical matter, smaller runners may consume up to a third less and favor consumption over longer periods of time. A 120-pound runner would not be able to consume 17 slices of rye bread with four hours to go before a long run. Since this has much to do with the sheer bulk of such a meal, remember that sports beverages and juices offer a concentrated dose of carbohydrate before a race, while filling the stomach far less. •

## Creating a Corps of Professional Swimming Coaches for Your Nation.

(or your State, County, or local swim committee.)

By John Leonard



In the past several years, I have been asked repeatedly for the elements that go into making American Swimming so successful. After all, this is a team that at the international level has lost exactly one meet in 105 years. (The 1956 Olympic Games in Australia.) One of the elements that I always point to is the existence of a historically strong corps of professional swimming coaches.

The next question, of course, is how to go about creating such a corps of professionals. My answers constitute this text.

First, we need to discuss what makes a swimming coach a professional. What is that definition? I believe it revolves around three things: Education, Experience and Achievement. Each is equally important in creating and defining a professional.

While professional, in one sense, means "paid to coach," we view it in the USA as an attitude that demands that we work to our fullest capacity at all times, in the best interests of those we serve, the swimming athletes. USA-Swimming has many coaches who are very part-time, or even volunteer

part-time, and they all are very professional in their work. The Purpose of Professional Coaching is to provide the best possible service to the athletes we serve. Coaching is a service profession.

Education is critical. We expect and demand that coaches educate themselves in the sport. We believe that existing professionals do the best job of educating coaches, as opposed to those who do not regularly coach athletes. (including and especially, academics.) Academic types have much to contribute to coaching, but they are not coaches. They are only a piece of a very complex mixture. Hence, only the successful practitioner can successfully educate the new coach "in toto."

It is important that coaches have a professional ladder to climb. In the USA, this is provided by the American Swimming Coaches Association Certification program, encompassing 5 levels of achievement, experience and education.

Certification is also a service to employers, who can use it as a form of "shorthand" description of the level of experience, education and achievement that they wish to consider employing. It serves the marketplace as well as the coaches themselves.

We recognize that it is impossible to use subjective modifiers like "better or best" to describe coaches. Instead, Certification specifies certain conditions of education, experience and achievement that has been met at each particular level.

We measure both education and experience via a system of "units" that reflect relevant time spent educating oneself and gaining the practical coaching experience so vital to success. ASCA offers 5 required and 18 "enrichment" courses as home study opportunities for coaches. All of these are also available in "live clinic" format.

Achievement is the "proof of the pudding," so we carefully analyze the athletes that the coach has worked with, in terms of their improvement to new levels of performance. As specific times are achieved, or results in competition earned, the coach who is the "primary coach" of the athlete, can claim that "achievement." The "primary coach" is the coach who plans and executes the overwhelming majority of the training of the athlete. In some cases, no primary coach can be ascertained, and so, no coach receives credit.

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The importance of each area is sometimes questioned. Some say, "education is not important...only results," or "experience is not important, etc..."

We believe that all three are important. Education is a tool you can use towards more successful experience. And Experience allows you to maximize your coaching skills, to create achievement. I use a simple analogy: You discover that you have brain cancer and need an operation to remove the tumor. You need to select a doctor for the surgery. Do you pick the med school graduate with a straight 4.0 average, the surgeon with 750 operations as a history, or the doctor who has done 500 operations with a 100% survival rating?

Your choice illustrates why we feel that achievement is important. Some coaches can be well educated, plenty experienced and yet...they...still..can't....coach. Coaching is not all science. A good portion of the job is art, and always has been, and likely always will be.

So, Part II, how do we educate coaches in the USA?

#### 1. 5 levels of required course work....

Level 1 – Foundations of Coaching, introductory text.

Level 2 – The Stroke School – The teaching of strokes, starts and turns.

Level 3 – Physiology of training – the construction and operation of a training program for athletes of all ages.

Level 4 – the Administration School – Operating your program as a head coach. What does it take to be successful?

Level 5 – The Leadership School – We expect our top coaches to also be sport leaders. What are the skills?

These are considered the backbone courses of a professional coach. Each has a test that must be passed. The American Swimming Coaches Association runs the whole program which is accepted and supported by USA Swimming.

- **2. Safety Education** In USA-S coaching, one needs to complete the Safety Training for Swimming Coaches course, Cardio-pulmonary resuscitation, and the Level 1 Course.
- **3. All other courses are the choice of the coach.** Most coaches choose to continue through the Required Courses 1-5, then into the "Enrichment Courses" that go into great depth on a number of different subjects. Our most popular course is the Level 2 Stroke School class.

Enrichment classes include titles such as: "Age group Developmental Sports Psychology" "Dryland Training for Swimming"

- "Advanced Freestyle"
- "Advanced Backstroke"

"Nutrition for Swimming" and 14 others. All courses are regularly updated, and improved. All have tests, all are available for continuing education unit credit.

We also educate coaches through a series of 15-20 regional clinics each year across the USA, and a national ASCA Clinic every September, that has gone on for 37 years and we consider the gold standard of coaching education in the world.

Clinics need to be aimed at what coaches NEED. Frequently there are conflicts between NEED and WANT. We all WANT to learn how to coach an Ian Thorpe or Michael Phelps, but we all NEED to learn how to coach Johnnie and Susie Jones, slightly overweight, unathletic 10 year old twins who are still afraid of the water. We all see a lot more Johnnies and Susies than Ians and Michaels!!!!

Other good learning experiences include apprenticeships, longer visit to programs you "want to be like," day visits to other programs, books, videos, and informal social gatherings of coaches where swimming discussion can be free-wheeling and open.

A few philosophies have evolved over the history of American Swimming that are very important in our success.

- **1. Work Together.** Together everyone achieves more.
- **2. Philosophy of abundance.** There are plenty of children/swimmers. Don't fight over them. Coach those who come to you freely. Don't poach, don't recruit. We have an abundance of talent. Plenty for everyone to coach. And ACTING as if this is true, helps make it true.
- **3. Work together to grow the sport.** Share and discuss. Don't hoard new ideas. Breakthroughs come when many minds work on the same issues.
- **4. Enlarge the pie,** Don't worry about getting your slice. Make more for everyone.
- **5. The National Governing Body must "reward what you want."** Find ways to reward the coach who seeks out the education, gets new experiences and produces new athletes of talent and desire. This is true from nations to swim clubs. If you structure your reward system carefully, coaches will rise, become the professionals you desire and raise the entire sport with them! ●

Good Luck! John Leonard