



Fina

WATER IS OUR WORLD

**Season Planning
Distance and Middle Distance**

Yearly Planning

- Two Season Plan or Three Season Plan
- Short Course and Long Course
- Tapers and Transitions



Overview

Macrocycle
Ingredients

Yearly
Planning

Conclusion

2 Season Plan

- Originated with separate winter (indoor) and summer (outdoor) championship schedules
- Began before the acceptance of periodization
- “Scholastic” Short Course season
- “international” Long Course season



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- **Short Course (Sept-April)**
 - Prep and Training: 27-30 Weeks
 - Meet Prep: 2-3 Weeks
 - Transition/Break: 1 Week
- **Long Course (April-Aug)**
 - Prep and Training: 15-17 Weeks
 - Meet Prep: 2-3 Weeks
 - Transition/Break: 1-2 Weeks



3 Season Plan

- Originated in Australia to better compete in Northern Hemisphere summer competitions
- Developed by exercise physiologists to better plan for and predict outcomes
- Energy system use and maximization is focus
- 15-17 week REPEATABLE (macro) cycles



Yearly Plan: 3 Season

- Sept Week 1- Dec Week 2/3 (15 Weeks)
 - Competition + 1 week transition
- Jan Week 1- April Week 1/2 (14 Weeks)
 - Selection Competition
- April Week 2- Aug Week 1 (15 Weeks)
 - International Competition + 2-3 week transition

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3 Season Planning

- Next adopted by Europeans in late 1990s
- Finally move to USA due to NCAA schedule and qualification standards
- 3 season model mirrors closely the season structure of athletics
- 3 season model now influenced by US Collegiate schedule and financial opportunities



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- More top swimmers are choosing 3 season model
- Older and more established swimmers prefer 3 season model
- Development athletes may benefit from the 2 season model due to the development potential of their physiology
- What approach should a national team take?



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- Three main ingredients
 - Macrocycles
 - Mesocycles
 - Microcycles

- How to think about and write training



Macrocycles (MAC)

- Large multi-week blocks of training
 - Intended to induce physiological shifts in the athlete
- Should have a main focus that will usually change in the next MAC
- MAC will have a secondary focus, that either supplements the primary or sets up the transition to the next MAC



- Each MAC should look to maintain gains from previous MACs while adding new qualities
- Sample Objectives
 - Aerobic Capacity
 - Anaerobic Capacity
 - Race speed and power
- Final MAC is usually race prep and taper





Example: 2 Season Plan Sept-April

- General Preparation Phase: 4-6 weeks
- Training Phase: 10-12 weeks
 - Building endurance and speed endurance
- Competitive/Racing Phase: 4-6 weeks
- Taper/Race Prep Phase: 2-3 weeks



General Preparation Phase

- Increase the Aerobic Capacity of all muscle fibers
 - ST, FT_A, FT_X
- Improve stroke technique and skills in water
- Improve relevant strength on land
- Stimulate the body's fat metabolism as energy by using progressive volume overload
 - Saves energy for future training and anaerobic stresses

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General Preparation Phase

- Very few race pace “glycogen burning” repeats
- Specialization not yet important
- Medium intensity + correctly swum repeats
 - Decreasing rest or decreasing times
- Land training and flexibility
- Work on stroke weakness!
- 2-3 mesocycles to test progress



Training Phase: Main Objectives

- Improving aerobic AND anaerobic capacity of fast twitch muscle fibers
- Extend ability to maintain a faster average pace during races
 - NOT race pace yet!
- Improve speed endurance through increasing volumes
- Physiology relevant to the race is now emphasized
- 2nd-half speed is now important



Training Phase: Notes

- Use repeat, race-relevant repeats
 - 200-800 for distance
 - 50-200 for mid distance
 - 25-100 for sprint
- Use repeats less than race distance for intensity work
 - 1:1 or 1:1/2 work:rest ratio
 - Twice weekly
- High-end aerobic repeats will engage fast twitch muscles aerobically
- Specific strokes used on key repeats

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Training Phase: Notes

- Plan mesocycle divisions to protect from overtraining
 - Distance- 2 longer mesocycles
 - Sprint- 3 shorter mesocycles
- Maintain strength and power gains and technique improvements from Preparation Phase
- Water resistance exercises begin on occasion
- Emphasize technique at faster speeds
- Lots of fat metabolism, aerobic recovery (EN1) for maintenance of beginning speed



Competitive Phase: Objectives

- Improve ability to swim at race pace
- Improve pacing, racing and breathing skills under pressure
- Maintain gains from Preparation and Training while achieving points 1 and 2



Competitive Phase: Notes

- Schedule competitions and reduce volumes
 - At least 15% reduction in volumes
- Reduce longer aerobic (EN1) training
- Land training reduced to maintenance levels
- More in-water speed resistance (tethers)
- Minimum attention to stroke technique
 - Avoids over correcting

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Competitive Phase: Notes

- 200 swimmers
 - Include more sprint training
 - Easy front half speed (90% of max with lower stroke count)
- Distance and middle distance
 - Sets and repeats at near or faster than race speed
- Appropriate rest needed to achieve these objectives
- Reduce number of repeats closer to competition





A Yearly Calendar: Two Seasons

	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Week 1		GP	MT	MT	MT	RP	RP	XXX	MT	MT	T	Trans
Week 2	GP	GP	MTx	MTxx	MT	RP	T	Trans	MT	RP	T	
Week 3	GP	MT	MT	MT	RP	RPxx	T	GP	MT	RPxx	T	
Week 4	GP	MT	MT	MT	RPx		T	GP	MTxx	RP	XXX	

GP: General Prep Phase
 MT: Main Training Phase
 RP: Competition Phase
 T: Taper

X: Minor Competition
 XX: Major Competition
 XXX: Selection Meet





A Yearly Calendar: Three Seasons

	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Week 1	GP	GP	MT	T	GP	MT	RP	T	MT	MT	RP	T
Week 2	GP	MT	RPx	XX	GP	MT	RP	XXX	MT	MT	RP	XXX
Week 3	GP	MT	RP	Trans	GP	MTxx	RP	Trans	MT	MTxx	RP	
Week 4	GP	MT	RP	GP	MTx		T	GP	MTxx	MT	T	

GP: General Prep Phase
 MT: Main Training Phase
 RP: Competition Phase
 T: Taper

X: Minor Competition
 XX: Major Competition
 XXX: Selection Meet





Meet Selection: Academic Calendar

2017/18 Academic Calendar

Calendarpedia
Your source for calendars

September 2017						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October 2017						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

November 2017						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December 2017						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

January 2018						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February 2018						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

March 2018						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April 2018						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May 2018						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June 2018						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July 2018						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August 2018						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Federal holidays 2017/18

Sep 4, 2017	Labor Day	Nov 11, 2017	Veterans Day	Jan 1, 2018	New Year's Day	May 28, 2018	Memorial Day
Oct 9, 2017	Columbus Day	Nov 23, 2017	Thanksgiving Day	Jan 15, 2018	Martin Luther King Day	Jul 4, 2018	Independence Day
Nov 10, 2017	Veterans Day (observed)	Dec 25, 2017	Christmas Day	Feb 19, 2018	Presidents' Day		

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- History of taper
- Science of taper
- American Approach
- European and Australian approach



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Alternative Planning: Reverse Periodization

- Opposite of traditional periodization
- Begins with race speed training
 - Race specific parameters
 - Specific race pace times
- Volume of high intensity training slowly rises to a peak, then drops later in season
- Volume of aerobic training begins at low levels and steadily increases as season progresses



- Monitoring progress
- Lactate testing
- Competition expectations
- Other?

