MENNO HENSELMANS
Science to master your physique



COURSE GUIDE

www.MennoHenselmans.com

Hi there, it's Menno, your course instructor for the Henselmans PT Course Certification Course. In this course you'll learn how to design optimal training, nutrition and supplementation programs for muscle growth, fat loss and strength development. We'll also extensively go into food choices for optimal health, diet adherence and for the professionals, there are modules on physique sports, Powerlifting and marketing your business. Let's get you introduced.

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How the course works

Every week or two weeks I will post one or several modules of the course in this course's e-learning environment. In the Comments section below each post you can ask questions and discuss the module. Some modules last 2 weeks, as they're particularly large and important. All bonus features, such as the monthly live video Q&As, the meetup and the exam will be announced and discussed in a post as well, so to follow the course, all you have to do is stay active in the e-learning environment.

The community

Feel free to comment on all the topics and answer other people's questions! Many courses include world-class athletes, academics of various disciplines and personal trainers with decades of experience. Networking and interacting with your classmates can greatly enrich your experience of the course. Many people from previous courses have made long-term friends in this course. We also have a Facebook group for this course for informal chat and networking. If you have a personal and private question that does not benefit anyone else, such as private medical questions, you can email me at my clients-only email address coaching@mennohenselmans.com.

Of course, it's also perfectly fine if you just want to lurk in the background and read the contents without interacting with the group.

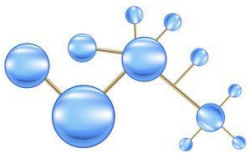
Course outline

The updated course outline – when we will discuss what – can be found below. As new contents are posted, you will also see them pop up in the group. I'll generally post new modules on Friday morning so you can study them over the weekend.

To roughly summarize the course, the first part of the course deals with nutrition, the second part with exercise science and then several miscellaneous topics are discussed.

The course outline is subject to change based on feedback during the course, new additions and updates to incorporate new research.

Week 1



- How to study and do your own research
    - How to improve your reading comprehension and retention
    - How to find and read scientific papers
    - Understanding statistics
    - Improving your logical reasoning skills
- Biochemistry 101
    - How the body produces energy from proteins, carbohydrates and fats

Weeks 2 & 3

- Human metabolism
    - What is energy? Thermodynamics and energy balance
    - Components of energy expenditure, refeeds, set-point theory, metabolic damage, adaptive thermogenesis, reverse dieting and the yo-yo effect
- Optimizing energy intake
    - Cutting, bulking and body recomposition
    - How to optimize nutrient partitioning
    - How to estimate body fat percentage
    - Macro tracking: common pitfalls



- How to measure progression and body composition

Weeks 4 & 5

- Protein
  - Protein requirements
    - Protein quality
    - Vegetarians & vegans
    - Gender, PEDs, training volume
    - Surplus vs. deficit



  - Protein timing
    - Protein absorption limits
    - The anabolic window, fasted training & workout nutrition
    - Protein synching
    - Meal frequency

Week 6

- Carbohydrates
  - Types: simple vs. complex, GI, GL, II, fructose
  - Requirements per type of exercise
  - Carbohydrate timing
  - Effects on muscle growth
  - Dietary fiber
  - Carbohydrate tolerance



Week 7

- Dietary fat
  - Types: lipids, triglycerides, fatty acids
  - Health effects and functions of the different fatty acids
  - Cholesterol metabolism, health effects and optimal dietary intake
  - Brown fat
  - Effects on hormone production

- Optimal intake for muscle growth

Week 8

- Ketogenic dieting
  - Ketosis levels, starvation mode and net carbohydrate intakes
  - Keto-adaptation and the keto flu
  - Effects on health, metabolism, appetite, performance and protein balance
  - Cyclical and targeted ketogenic dieting
  - Measuring ketosis
  - MCTs and exogenous ketones
  - Who is it for? Indications and contraindications



Week 9

- Fasting and circadian rhythm effects
  - Intermittent fasting & alternate day fasting
  - Protein sparing modified fasting (PSMF)
  - Circadian rhythm effects: timing considerations for the macronutrients
  - Carb backloading
  - Interaction effects between carbs and fats

Week 10

- Lifestyle factors
  - Circadian rhythm control
  - How to optimize sleep quality
  - How to manage stress
  - How to effortlessly increase your activity level



Week 11

- Beyond macros: micronutrition
  - Likely deficiencies
  - Bloodwork

- Multivitamins: problems and benefits
- The functions of each micronutrient related to fat loss, muscle growth and performance
- How to fill in your micros

Weeks 12 & 13



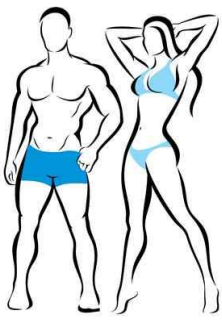
- Health science and food choices
  - What makes a diet healthy?
  - Effects of food processing: heating, freezing, blending
  - Organic, wild and grass-fed
  - Low calorie sweeteners, sugar and dietary fiber
  - Food choices for health and anabolism: meat, fish, poultry, dairy, eggs, grains, wheat, gluten, soy, coffee, fruits, vegetables, chocolate, coconut, nuts, alcohol
  - Detox diets
  - FODMAPs and digestive health
  - How to recover from illness

Week 14

- Ad libitum dieting: how to lose fat and gain muscle without tracking your macros
  - Hunger management strategies
  - Physiological vs. psychological regulation of hunger: eating speed, social effects, decision fatigue, sensory-specificity, portion size, biorhythm effects, exercise, sleep, body composition, palatability, meal frequency, sweeteners

Week 15

- Contest prep and the peak week
  - Physique sports divisions
  - Carbloading
  - Electrolyte manipulation



    - Diuretics and water cutting
    - ‘Shitloading’
    - Posing

Week 16

- Skincare *[optional]*
    - Acne
    - Tanning
    - Cellulite
    - Hair loss
    - Dandruff

Week 17

- Supplements: a complete guide to every supplement worth knowing

Week 18

- Hormones and performance enhancing drugs
    - Understanding all major hormones
    - AAS use: risk-reward and most medically responsible practice
    - Interpreting bloodwork

Week 19

- Nutrition case studies

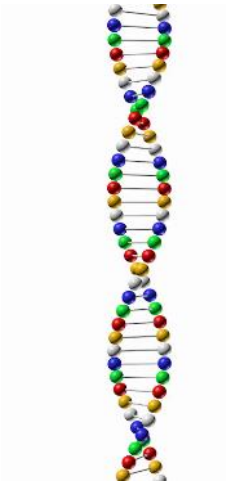
This marks the end of the nutrition part of the course. From here, we’ll go into training topics and then at the end miscellaneous topics.



Weeks 20 & 21

- Muscle anatomy and contraction
- Fundamentals of muscle growth & strength
    - Mechanisms of muscle growth
    - Systemic and local growth regulation: structural balance theory
    - Strength vs. size & functional training

Weeks 22 & 23



- Program design fundamentals
    - Training intensity
        - Effects on fatigue, connective tissue and the nervous system
        - Strength vs. size
        - The muscle-specific hypertrophy method
    - Training volume
        - How to estimate recovery capacity
        - Optimizing and individualizing training volume
    - Training frequency
        - Interaction with volume
        - Effects on recovery capacity
        - How often should you train each muscle and exercise?
    - How to structure your training split
    - Estimating training status and maximum muscular potential
    - Weak body parts
    - Program optimization based on work capacity
    - Program optimization based on DNA testing

Week 24



- Muscle functional anatomy: a visual guide
    - What each muscle does and how to train it
    - Ab training and spot reduction

Week 25

- Exercise selection
    - What makes an exercise effective for muscle growth?
    - Free weights vs. machines
    - Compound vs. isolation exercises
    - Accommodating resistance, bands and chains
    - Recommended exercises and technique guide
    - Counting volume: how much does a certain exercise stimulate a certain muscle?
    - Functional differentiation and exercise variety

Week 26

- Exercise performance
    - What is ‘good technique’?
    - The mind-muscle connection
    - Repetition tempo
    - Proximity to failure
    - How to breathe



Week 27

- How to structure your workouts
    - Rest intervals
        - Active recovery
    - Exercise ordering
        - Circuit training, supersets & more

Week 28

- Program design for women
    - Sex differences
    - Contraception
    - Pregnancy

- Menstrual periodization
- Breast implants

Week 29

- Program design for the elderly and youth
  - Sarcopenia
  - Anabolic resistance
  - Neuromuscular changes
  - Injury considerations



Week 30

- Periodization and progression
  - Progressive overload and progression models
  - What is fatigue?
  - Cybernetic/autoregulatory, undulating and linear periodization
  - Benchmarking and autoregulation
  - Overtraining, overreaching and deloading

Week 31

- Advanced strength training techniques
  - Forced reps and drop sets
  - Reverse pyramiding, cluster sets and myo-reps
  - Weighted stretching
  - Eccentric overloading
  - Post-activation potentiation
  - KAATSU/blood flow restriction training



Week 32

- Training gear
  - Weightlifting belts
  - Footwear



- Knee wraps
- Lifting straps

Week 33

- Powerlifting
  - Strength vs. size program design
  - Peaking & tapering
  - Powerlifting technique
  - Selecting a competition



Week 34

- Cardio
  - Implementation for fat loss: fat burning zone, fasted cardio, etc.
  - Constrained energy expenditure
  - Energy expenditure per activity
  - Implementation for health
  - Implementation for sports (limited)
  - How to mitigate the interference effect
  - HIIT vs. LISS



Week 35

- Training program case studies

Weeks 36 & 37

- Stretching
- Postural correction
- Warming up
- Injury management
  - Pain science
  - Ice vs. heat, NSAIDs and RICE
  - Rehabilitative tools & equipment



- Foam rolling and massage
- Chiropractic & alternative medicine
- Common injuries of each body part and how to treat them

Week 38

- Adherence: the psychology of how to stick to your diet and exercise program
  - Psychological effects of nutrition
  - Willpower
  - The psychology of coaching
  - Blood sugar
  - Calorie cycling
  - Goal setting
  - Cheat meals
  - Diet breaks
  - Social eating events
  - How to deal with social pressure
  - Food cravings
  - Flexible dieting and meal planning
  - Assessing client adherence and motivation

Week 39

- How to create a successful PT business
  - Marketing
  - Advertising
- Client communication



Week 40

- Exam preparation time with open Q&A

20 & 21 November 2027: Exam

Technical tips

Most course contents, including the document you're reading right now, have an index. If you open the Navigation or Bookmarks section on the left, you should see the index. This makes it much easier to navigate the documents.

Most course documents are provided as PDF files or spreadsheets (e.g. calculators), in addition to an online Google file format. If you don't have software to open spreadsheets and PDF files, you can download OpenOffice for free here.

Payment support

For any questions about your payment, you can contact my administration at info@mennohenselmans.com.

Code of conduct

This should go without saying, but unprofessional, unlawful or severely unethical conduct will result in your removal from the course, the alumni network and a retraction of your certificate, if applicable. All certified graduates are expected to uphold a reputation as esteemed fitness professionals. We specifically do not condone black hat marketing, plagiarism, scams, sexism, racism or any practices that endanger your clients or result in a disproportionate number of client complaints. For the full code of conduct we expect from you, see The European Register for Exercise Professionals Code of Ethical Practice.

Copyright

All contents of this course are copyrighted by me and/or Henselmans LLC. However, I'm perfectly ok with you sharing excerpts or quotes to friends or posting them online if you mention that it's from the PT Course with a link.

For certain practical guides, I will note explicitly that you can share them with your own clients.

Happy learning!

The exam

“Do I have to remember all of this?” you may ask yourself at times during the course. This is a course for grown-ups, so in principle the answer is simple: remember what you like. However, there is of course the exam for those that want to get certified. To know which contents you have to remember for the exam, you can apply a 2-step rule.

1) Would I ever have to explain this to a client as an evidence-based PT?
If so, 2) can I easily look this up?

If not, you have to remember it. If you can easily look it up or it’s the kind of information you don’t need regularly in practice, all you have to remember is where you can look it up in the course. Just like during the practice of personal training, you are allowed to access all course materials during the exam (‘open book’ exam).

The exam consists of 3 parts: a theoretical exam, exercise technique checks and a case study with the creation of a full coaching program for a fictitious client provided by us. The theoretical exam takes place via ProProfs online. We will provide you with a submission form on our website for the technique videos and the case study program.

If you pass the exam, you’ll become a Henselmans Certified Personal Trainer and you’ll receive a premium print-quality physical certificate via First Class Royal Mail. If you have an active fitness business, you can also put yourself on our directory of Henselmans Certified Personal Trainers. The exam will be graded within 3 weeks after completion.

1. Open book exam

To test if you have the requisite knowledge to become a Henselmans Certified Personal Trainer, you'll have to take an online exam. The theoretical exam is conducted using ProProfs web software (the same as used for the optional interim exams after most modules). You can access the web app with any browser, so you can be anywhere you want. However, you may be required to identify yourself with your webcam or camera and present identification to verify it's you during the exam.

You can start the exam at any time during 2 calendar days, the weekend of **20 & 21 November 2027**, Amsterdam time. You will then have 4 hours to complete it. Most people need the full 4 hours, so prepare accordingly. We recommend you use Mozilla Firefox, Google Chrome, Microsoft Edge or Safari Web Browser as your internet browser on a laptop or desktop computer. If you close your browser for whatever reason without saving, you will lose all your data and you will have to start over(!) There is nothing we can do to prevent client-side problems like this, so prepare properly.

There are no resits, just like in life. You can only submit one exam attempt per course. However, if you don't want to take the exam this round, you can postpone it to the next course round (as many times as you like) by emailing info@mennohenselmans.com before the exam starts. If you don't email us beforehand that you're postponing and also don't submit the exam, you'll fail the exam.

The access information for the exam will be posted in the course group before the exam starts.

The exam consists of 70 randomized questions from a large database with a mixture of formats, including true/false, checkbox, fill-in-the-blank, multiple choice and essay/open.

After the exam, we'll anonymously grade all the answers and you'll get a Latin grade based on your percentage of points achieved from the possible total assigned. These numbers might seem easily achievable, but we employ negative grading, so the expected percentage points for taking an exam purely by random guessing is 0%, e.g. a 10-point multiple choice question with 4 options has a 10 / 4 = 2.5-point penalty for wrong answers.

- 0-54%: fail
- 55-79%: pass
- 80-84%: cum laude
- 85-94%: magna cum laude
- 95-100%: summa cum laude

Each exercise technique video with improper form from the practical part of the exam imposes a 25% point penalty on the theoretical part, e.g. if you scored 75% on the theoretical but showed poor exercise technique during 1 of the technique checks, your total score will be 50%.

So far, ~85% of students who have taken the exam have passed it. If you studied all the materials and you take the exam seriously, you should pass. If you didn't though, you probably won't.

2. Exercise technique videos

To become a Henselmans Certified Personal Trainer, it is imperative that you can demonstrate textbook exercise technique. As part of the exam, you must show us 4 videos demonstrating textbook form during at least 3 repetitions of each of the following 4 exercises. Each video should show your entire body during the entire repetition without any supportive training gear: no powerlifting belt, Olympic weightlifting shoes or knee/elbow wraps. Knee/elbow sleeves are fine though.

1. Deadlift: either a powerlifting or Romanian deadlift.
   Video angle: straight from the side. Your hips should be visible during the full repetition.
   Technique criteria:
   a. Your lumbopelvic complex stays near anatomical position (neutral).
   b. Full hip lock-out occurs at the top.
   c. You keep the bar roughly over your center of gravity, normally meaning your (mid)feet.

2. Squat: either the powerlifting squat or a front squat.
   Video angle: straight from the side. Your hips should be visible during the full repetition.
   Technique criteria:
   a. No major posterior pelvic tilt or spinal flexion occurs during the exercise: you retain roughly anatomical lumbo-pelvic posture.
   b. You hit parallel (at a minimum).
   c. There is no major knee valgus (caving).
   d. You keep the bar roughly over your center of gravity, i.e. roughly over the (mid)feet.

3. Barbell standing overhead press (Military).
   Video angle: diagonally from the front. Your hands and hips should be visible during the full repetition.
   Technique criteria:
   a. You achieve full Olympic lock-out.
   b. The bar touches your chest or clavicle in the bottom.
   c. You keep your elbows roughly below the barbell.
   d. There is no excessive lumbar spinal extension.
   e. You do not use any leg drive.

4. Powerlifting bench press.
   Video angle: diagonally from the front. Your hands and hips should be visible during the full repetition.
   Technique criteria:
   a. The bar touches your chest or abdomen in the bottom.
   b. You reach full elbow lock-out at the top.
   c. Your scapulae stay retracted and your thoracic spine stays extended throughout the whole set.

In addition to the above criteria, reasonable control over the weight, balance, maximum range of motion and symmetry are important for all exercises. For the powerlifts, IPF Powerlifting rules also apply (section ‘Powerlifts and rules of performance’). Exercise load, repetition tempo and your lifting attire are not graded (but may earn you style points).

Essentially, the video should be able to serve as a textbook demonstration of good technique for that exercise. (Though you’ll learn that not everyone needs to perform the lifts in this manner!) You don’t really have to worry about the video details, if you’re sure the video allows us to grade your exercise technique well.

At the start of at least one video, your face must be clearly visible and you must clearly present an official form of identification to the camera (e.g. driver's license, passport or government ID). If you are not clearly identifiable as the same person in any other video, you must also identify yourself in that video. If there are other people than you identifiable in the video or involved in the creation of the video, including any camera operator, you need to obtain written consent from them and inform them the video may be watched by any course tutor or administrator.

If you have a medical pathology reasonably preventing you from the proper execution of one of the exercises, please list this instead of the video and provide formal proof thereof (e.g. a doctor's note or an x-ray).

Technical specifications

All 4 videos should each be fewer than 100 MB in size, have a minimum resolution of 640x480 and be no longer than 2 minutes in duration. All videos should be unedited and have intact metadata (if you don't know what these are, they should be intact, as they're automatically created) so we can see the creation time.

Submission

Please check that your submission fulfills all the above requirements. Watch each video and compare it to a video demonstration of that exercise from the course. Could your video replace that video? If not, make a better one. The videos are graded pass/fail. Every fail results in a 25% deduction from your overall score of 0-100%, so you cannot afford to have unacceptably poor technique for more than 1 exercise.

However, you are allowed to submit trial videos to info@mennohenselmans.com once to have your technique assessed by our team. Submissions must be received no later than 3 weeks before the final exam date. You'll receive a brief assessment within 2 weeks.

Upload the 4 videos to a streaming site, such as Vimeo, or a cloud service like Google Photos, Google Drive, iCloud, or Dropbox. Do not upload your videos to YouTube, as showing your ID there is not allowed and your video may be taken down. Then upload the links to your 4 technique videos on the exam upload page before the theoretical exam ends. On the exam upload page, you must also upload the program you designed: see below.

3. Coaching program design case study

To become a Henselmans Certified Personal Trainer, you need to have experience creating fitness programs, so you'll need to submit a complete fitness program for a fictitious client we'll give you. The program must include the following at a minimum.

- A resistance training program including detailed specification of training intensity, volume, frequency, rest intervals, exercise selection, exercise technique, exercise order, periodization, warm-ups and proximity to failure.
- Detailed macronutrient recommendations and dietary advice.
- Detailed supplementation advice.
- Explanations of your choices. The reasons, explanations and justifications for your program choices are what you're primarily graded on. You can add explanations in-line in the program, insert comments or add a separate cover letter with the explanations.

You have full discretion over exactly how you present the program. You can use the provided spreadsheets and case studies from the course as a template for this. However, you can upload a maximum of 3 files. If you created additional files, such as a spreadsheet, you can link to those from within your uploaded files. Imagine you're a client receiving your program: does it contain everything you need to reach your fitness goals? If your client wouldn't be happy with your program, we won't be either!

Your program is graded as follows.

- Fail (0%): your program is very incomplete, unsafe or demonstrates critical lack of understanding of the course materials.
- Pass (55%): your program reasonably applies the fundamentals of the case.
- Expert (80%): you've demonstrated more than a basic understanding of the case with a comprehensive and customized program.
- Exemplary (95%): you've demonstrated clear mastery of the science and practical application of every nuance of the case. Your case study may be included in the course.

Your final grade is the average of your case study and theoretical exam grades minus any technique deductions, calculated on a scale of 0 to 100 as 0.5 × [theoretical exam grade] + 0.5 × [case study grade] – 25 × [number of unacceptable exercise technique videos].

You will receive the case study in week 35, together with the training program case studies. You are allowed to submit a sample of your case study once to have it assessed by our team. Email it to info@mennohenselmans.com no later than 3 weeks before the final exam date. You'll receive a brief assessment of where you could improve within 2 weeks.

Upload the program you designed, along with the links to your 4 technique videos, to the exam upload page before the theoretical exam ends.

The exam may appear daunting, but if you put in the work, you should pass and become a great PT in the process. Good luck and enjoy the course!

Feedback

If you have extensive feedback about the course, complaints or anything you want to discuss privately, you can email info@mennohenselmans.com. Important matters will be forwarded to me for resolution. Feedback from all sources, including an anonymous survey, will be taken into account in the post-course evaluation to improve future courses. We strive to make each course better than the last, so we greatly welcome constructive feedback.

Course contributors

The Henselmans PT Course is officially authored by the following people, in alphabetical order.

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