

Fasting, Intermittent Fasting, Chrononutrition & Ramadan Nutrition Specialization Course

6 Month Advanced Specialization Course

COURSE POSITIONING

Designed for nutrition and dietetics students, graduates and practicing dietitians who want advanced competence in fasting physiology, intermittent fasting, time restricted eating, chrononutrition, Ramadan and religious fasting, diabetes and chronic disease risk assessment, special populations, prolonged fasting safety, disordered fasting and refeeding syndrome. The course develops evidence informed clinical reasoning rather than promoting fasting as a universal metabolic solution.

The Course Moves Participants Away From

Common Oversimplification

Advanced Clinical Direction

Longer fasting means better results

Balance potential benefit against nutritional adequacy, medical risk, lifestyle burden and sustainability

16:8 improves metabolism for everyone

Assess whether a time restricted pattern is safe, useful and appropriate for the individual

Fasting detoxifies the body

Understand normal hepatic and renal physiology and reject unsupported detox claims

Ramadan fasting automatically causes weight loss

Evaluate total intake, meal composition, sleep, activity and

hydration

People with diabetes either can or cannot fast

Use structured medical risk assessment and individualized planning

OMAD is simply another meal pattern

Assess whether energy, protein, micronutrients and eating behavior can remain adequate

Core Learning Pathway

Understand Fasting Physiology → Understand Circadian Nutrition
→ Differentiate Fasting Models → Evaluate Evidence → Assess
Suitability → Conduct Prefasting Assessment → Design Eating
Windows → Protect Nutritional Adequacy → Manage Ramadan
Nutrition → Manage Hydration → Assess Diabetes Risk → Integrate
Medication Context → Adapt Fasting to Chronic Disease → Support
Special Populations → Recognize Disordered Fasting → Understand
Refeeding Risk → Apply NCP → Defend Complex Fasting Cases

Course Roadmap

Month

Primary Development Area

Participant Development

Month 1

Fasting Physiology, Metabolism, Chrononutrition & Evidence

Understand metabolic changes during fasting, circadian biology,
common fasting protocols and limitations of current evidence

Month 2

Intermittent Fasting, Weight Management & Clinical Application

Develop competence in selecting, designing and monitoring fasting approaches without compromising nutrition

Month 3

Ramadan & Religious Fasting Nutrition

Develop advanced competence in prefasting assessment, Suhoor, Iftar, hydration, sleep, activity and culturally appropriate care

Month 4

Diabetes, Cardiometabolic, Renal, Hepatic & GI Fasting

Apply risk based fasting nutrition across common chronic diseases

Month 5

Pregnancy, Older Adults, Athletes & Special Populations

Understand when fasting requires modification, closer monitoring or specialist review

Month 6

Prolonged Fasting, Refeeding, Eating Disorders, ADIME & Advanced Practice

Recognize high risk fasting, manage nutrition restoration and defend complex fasting cases

Specialization Philosophy

Fasting expertise includes knowing when fasting is appropriate, when it offers no meaningful advantage, how to protect nutritional adequacy and hydration, and when clinical risk outweighs potential benefit. The dietitian should never use increasingly restrictive fasting as a substitute for individualized medical nutrition therapy.

MONTH 1 | Fasting Physiology, Metabolism, Chrononutrition & Evidence

Understand what actually happens during fasting before attaching health claims to it.

Week

Focus

Learning Content

Practical Application

Week 1

Fed State versus Fasting State

Postprandial metabolism. Insulin and glucagon. Glycogen storage and use. Lipolysis, fat oxidation, ketogenesis, gluconeogenesis and protein turnover. Changes with increasing fasting duration and adaptation to repeated fasting.

Map metabolic changes across several fasting durations and explain why metabolism does not switch at one magical fasting hour.

Week 2

Circadian Rhythm & Chrononutrition

Central and peripheral body clocks. Sleep wake rhythm. Meal timing. Glucose tolerance and insulin sensitivity across the day. Late night eating. Circadian disruption, shift work, sleep deprivation, early and late eating windows and chronotype.

Compare two eating windows with the same food intake and identify where circadian timing may change clinical suitability.

Week 3

Understanding Different Fasting Models

Time restricted eating. 12:12, 14:10, 16:8 and 18:6 patterns. OMAD. 5:2. Alternate day fasting. Modified alternate day fasting. Prolonged fasting. Water only fasting. Ramadan fasting and other

religious fasting patterns.

Compare benefits, burdens and risks of several fasting models rather than ranking them by fasting duration.

Week 4

Evidence Based Fasting

Randomized trials, short and long term evidence, weight loss versus independent fasting effects, calorie restriction as a confounder, metabolic outcomes, adherence, hunger, dropout, lean mass, sleep, quality of life and commercial fasting claims.

Critically appraise common claims about autophagy, metabolism, detoxification, insulin resistance and fat burning.

Month 1 Development Outcome

Move from mechanism based fasting claims toward evidence appraisal that separates physiology, clinical outcomes and patient suitability.

MONTH 2 | Intermittent Fasting, Weight Management & Clinical Application

Fasting is a meal timing strategy, not permission to ignore nutritional adequacy.

Week

Focus

Learning Content

Practical Application

Week 5

Intermittent Fasting & Weight Management

Energy deficit, spontaneous intake reduction, appetite, hunger, weight loss, fat mass, lean mass, waist circumference, plateaus, adherence and weight recurrence. Compare fasting with other structured energy reduction approaches.

Decide whether intermittent fasting adds meaningful value for several different weight management cases.

Week 6

Nutritional Adequacy Within Restricted Eating Windows

Energy adequacy, protein, protein distribution, fiber, calcium, iron, vitamin B12, vitamin D, folate, essential fats, fruit, vegetables and hydration. Consider how fewer eating opportunities affect adequacy.

Compare three balanced meals across a longer day with two meals in a restricted window and determine whether requirements can realistically be met.

Week 7

Designing a Time Restricted Eating Plan

Wake time, sleep, work hours, training schedule, family meals, medication, hunger pattern, GI tolerance, diabetes risk, culture, food availability and eating disorder history. Earlier, later and flexible eating windows.

Build individualized eating windows for different work, family and activity patterns.

Week 8

When Fasting Becomes Counterproductive

Severe hunger, binge eating, night eating, poor training performance, inadequate protein, micronutrient inadequacy, dizziness, dehydration, constipation, headache, sleep disruption, food preoccupation and increasingly restrictive fasting.

Identify when a fasting strategy should be modified or discontinued rather than intensified.

Month 2 Development Outcome

Move from viewing failure to tolerate fasting as poor discipline toward recognizing when the strategy itself is inappropriate.

MONTH 3 | Ramadan & Religious Fasting Nutrition

Ramadan fasting requires clinical adaptation, cultural understanding and respect for religious practice.

Week

Focus

Learning Content

Practical Application

Week 9

Physiology & Lifestyle Changes During Ramadan

Dawn to sunset fasting, no fluid during fasting hours, changing duration by season and location, Suhoor, Iftar, night eating, sleep, night prayers, activity, work, caffeine withdrawal, hydration, GI changes and medication timing.

Map how a person's usual eating and sleep pattern changes across the Ramadan day.

Week 10

Suhoor Nutrition

Protein, high fiber carbohydrate, whole grains, fruit, vegetables, healthy fats, fluid, satiety, food volume and reduction of excessive sodium while preserving traditional foods.

Upgrade a common Suhoor into a more nutritionally balanced culturally appropriate meal without unnecessary restriction.

Week 11

Iftar, Night Nutrition & Hydration

Breaking the fast, initial hydration, dates within total carbohydrate needs, portions, fried foods, sugary drinks, large meal discomfort, protein distribution, vegetables, carbohydrate quality, fluid between Iftar and Suhoor and caffeine.

Build a complete evening eating and hydration schedule from Iftar to Suhoor.

Week 12

Prefasting Assessment & Monitoring

Medical conditions, medication, previous fasting experience, previous hypoglycemia, hydration risk, occupation, climate, activity, pregnancy, kidney disease, diabetes, age, nutritional status, eating disorder history and glucose monitoring where relevant.

Complete a structured pre Ramadan nutrition and risk assessment and identify when medical review is needed.

Month 3 Development Outcome

Move from generic Ramadan meal plans toward individualized risk assessment, nutrition, hydration and coordinated medical care.

MONTH 4 | Diabetes, Cardiometabolic, Renal, Hepatic & GI Fasting

Medical fasting decisions cannot be made from the diagnosis name alone.

Week

Focus

Learning Content

Practical Application

Week 13

Diabetes & Fasting

Type 1 diabetes, type 2 diabetes, prediabetes and gestational diabetes as clinical context. Hypoglycemia, hyperglycemia, dehydration, DKA risk, medication timing, insulin context, CGM awareness, fingerstick monitoring and situations requiring the fast to be broken.

Develop nutrition support within formal diabetes fasting risk assessment while keeping medication adjustment within prescribing scope.

Week 14

Obesity, Metabolic Syndrome & MASLD

Fasting versus continuous energy restriction. Appetite, insulin resistance, weight reduction, fat mass, lean mass, MASLD, dyslipidemia, blood pressure and medication assisted obesity treatment.

Decide whether intermittent fasting offers an actual advantage for a patient rather than prescribing it because insulin resistance is present.

Week 15

Kidney, Cardiovascular & Liver Disease

CKD, AKI risk, dialysis, fluid, electrolytes, dehydration, blood pressure, medication and stone disease. Hypertension, heart failure, diuretics and fluid balance. MASLD, cirrhosis, malnutrition, sarcopenia, ascites and prolonged fasting risk.

Compare fasting suitability across renal, cardiac and hepatic cases with different levels of risk.

Week 16

Gastrointestinal Disease & Fasting

GERD, dyspepsia, gastroparesis, IBS, constipation, diarrhea, IBD, peptic symptoms, post GI surgery, bariatric surgery, dumping syndrome and short bowel. Avoid universal gut rest claims.

Determine whether fasting is likely to be neutral, useful or counterproductive in several GI scenarios.

Month 4 Development Outcome

Distinguish a healthy adult choosing fasting from a medically complex patient requiring structured risk assessment and multidisciplinary care.

MONTH 5 | Pregnancy, Older Adults, Athletes & Special Populations

Fasting advice becomes more conservative as physiological vulnerability increases.

Week

Focus

Learning Content

Practical Application

Week 17

Pregnancy & Lactation

Maternal energy and protein, hydration, nausea and vomiting, gestational diabetes, maternal weight gain, fetal growth, anemia, lactation demands, milk supply concerns and medical assessment. Evidence limitations and individualized obstetric collaboration.

Develop a cautious nutrition framework for a pregnant or lactating person considering religious fasting.

Week 18

Children, Adolescents & Older Adults

Growth, school activity, sports, type 1 diabetes and eating disorder risk in younger people. Frailty, sarcopenia, reduced thirst, dehydration, polypharmacy, diabetes, CKD, low appetite and malnutrition in older adults.

Identify why an aggressive fasting strategy may be inappropriate even when body weight is high.

Week 19

Athletes & Exercise During Fasting

Training timing, carbohydrate availability, protein, hydration, electrolytes, recovery, heat exposure, endurance, resistance training, competition, Ramadan and sleep.

Create different fueling plans for athletes training before Iftar, after Iftar and outside religious fasting.

Week 20

Shift Workers & Complex Lifestyles

Night shifts, rotating schedules, circadian disruption, night eating, sleep deprivation, caffeine, long workdays, healthcare professionals, drivers, manual workers and hot environments.

Decide whether an 8 hour eating window is realistic or counterproductive for a rotating shift worker.

Month 5 Development Outcome

Move from the idea that everyone can fast with planning toward risk based assessment of physiological state, disease, medication,

activity and environment.

MONTH 6 | Prolonged Fasting, Refeeding, Eating Disorders, ADIME & Advanced Practice

Knowing when not to fast is part of fasting expertise.

Week

Focus

Learning Content

Practical Application

Week 21

Prolonged Fasting & Safety

24 hour, 36 hour, 48 hour and multiple day fasting. Water only fasting. Commercial fasting retreats and clinics. Electrolytes, dehydration, hypotension, hypoglycemia, lean mass loss, micronutrient inadequacy, medication risk and rapid weight loss concerns.

Critically evaluate a prolonged fasting protocol for evidence, safety and professional scope.

Week 22

Refeeding Syndrome After Significant Restriction

Starvation physiology, carbohydrate reintroduction, insulin, phosphate, potassium, magnesium, thiamine, fluid, glucose, clinical deterioration and controlled nutrition advancement. High risk contexts include severe malnutrition, eating disorders and prolonged inadequate intake.

Develop a safe nutrition restoration framework after significant fasting or prolonged restriction.

Week 23

Disordered Fasting, Eating Disorders & Psychological Safety

Compensatory fasting, fasting after binge episodes, increasing fasting duration, fear of breaking the eating window, extreme calorie restriction, body image driven fasting, fasting plus purging, compulsive exercise and binge restrict cycles.

Recognize when fasting is reinforcing disordered eating and build an appropriate referral pathway.

Week 24

Fasting ADIME, Professional Scope & Advanced Case Defense

Purpose and type of fasting, duration, eating window, fluid restriction, diagnosis, medication, age, pregnancy, nutritional status, weight history, body composition, eating disorder risk, activity, climate, sleep, food intake, protein, micronutrients, hydration, laboratory information, symptoms, nutrition diagnosis, intervention, monitoring and referral.

Defend one intermittent fasting case, one Ramadan case, one diabetes or chronic disease case and one high risk or refeeding case.

Month 6 Development Outcome

Be able to explain why fasting is or is not appropriate, how nutritional adequacy will be protected, what will be monitored and when medical review is required.

Dedicated Ramadan Nutrition Competency Portfolio

Competency

Expected Skill

Prefasting Assessment

Identify medical, nutritional and lifestyle risk

Suhoor

Build a balanced and culturally appropriate meal

Iftar

Support controlled refeeding and nutritional adequacy

Hydration

Develop realistic nighttime hydration strategies

Protein

Maintain appropriate intake across a limited eating window

Diabetes

Recognize the need for formal fasting risk assessment

Medication

Identify when medical review is required

Activity

Adapt nutrition around exercise and work

Sleep

Integrate altered sleep and meal timing

Monitoring

Identify symptoms requiring reassessment

Cultural Competence

Respect religious practice while maintaining clinical safety

Case Defense

Defend a complete Ramadan nutrition plan

Dedicated Intermittent Fasting Competency Portfolio

Competency

Expected Skill

Protocol Selection

Differentiate TRE, 5:2 and alternate day approaches

Evidence

Distinguish demonstrated effects from theoretical mechanisms

Energy

Recognize when benefit is primarily related to reduced intake

Protein

Protect daily adequacy and muscle

Micronutrients

Protect dietary quality despite fewer eating opportunities

Chrononutrition

Consider circadian alignment

Adherence

Match strategy to lifestyle and preferences

Eating Disorders

Screen before recommending restrictive protocols

Weight Maintenance

Plan beyond the active fasting phase

Case Defense

Explain why fasting is or is not appropriate for a patient

Fasting Specialization Case Portfolio

Case Area

Practical Competency

Healthy Adult

Determine whether intermittent fasting adds meaningful benefit

12 Hour Overnight Fast

Develop a moderate meal timing intervention

16:8

Protect nutritional adequacy

Early TRE

Integrate circadian principles

Late TRE

Evaluate lifestyle and metabolic considerations

OMAD

Identify nutritional and behavioral concerns

5:2

Assess dietary adequacy across the week

Weight Plateau

Determine whether extending fasting is justified

Obesity

Integrate fasting within complete weight management

GLP 1 Therapy

Prevent excessive restriction and poor intake

Prediabetes

Evaluate whether fasting suits the patient

Type 2 Diabetes

Apply formal risk assessment and multidisciplinary planning

Type 1 Diabetes

Recognize substantially higher medical risk

Ramadan Healthy Adult

Optimize Suhoor, Iftar and hydration

Ramadan With Diabetes

Apply risk based nutrition planning

Ramadan With CKD

Integrate renal risk assessment

Ramadan With Cardiovascular Disease

Address medication and hydration issues

Pregnancy

Use individualized assessment and obstetric collaboration

Older Adult

Assess malnutrition, frailty and dehydration risk

Athlete

Integrate training and recovery

Shift Worker

Adapt meal timing to circadian disruption

GI Disease

Determine symptom specific suitability

Prolonged Fasting

Identify safety concerns

Disordered Fasting

Recognize eating disorder risk

Refeeding Risk

Plan safe nutrition restoration

Final Case Defense

Defend complete fasting nutrition care

Professional Scope Integration

Situation

Fasting Dietitian's Role

Healthy Intermittent Fasting

Assess suitability, dietary adequacy, adherence and outcomes

Obesity

Use fasting only as one potential nutrition strategy

Diabetes

Provide nutrition support within medical fasting risk assessment

Insulin

Do not independently modify insulin unless appropriately licensed and trained to prescribe

Diabetes Medication

Refer medication timing and dose adjustment to the prescriber

Ramadan

Provide culturally appropriate nutrition and hydration support

CKD

Provide nutrition within renal and fasting risk assessment

Heart Failure

Consider fluid and medication issues within cardiology care

Pregnancy

Coordinate with obstetric care because individual risk and evidence vary

Eating Disorders

Avoid restrictive fasting and refer appropriately

Prolonged Fasting

Evaluate risk rather than routinely prescribing extended fasting

Refeeding Risk

Support cautious nutrition restoration within multidisciplinary care

Athletes

Integrate fueling and hydration with training demands

Religious Decision

Provide clinical information while respecting patient values and

appropriate faith guidance

Complex Disease

Collaborate with the relevant medical specialty

Final Specialization Portfolio

Portfolio Component

Final Output

Fasting Physiology Map

Fed to fasting metabolic pathway

Fasting Protocol Comparison

TRE, 5:2, alternate day and religious fasting framework

Evidence Appraisal

Critical review of a fasting claim

Chrononutrition Exercise

Meal timing analysis

Intermittent Fasting Case

Complete nutrition care

Eating Window Tool

Individualized timing framework

Nutrient Adequacy Exercise

Protein, fiber and micronutrient protection

Ramadan Prefasting Assessment

Structured risk review

Suhoor Plan

Culturally appropriate meal framework

Iftar Plan

Complete post fast nutrition strategy

Ramadan Hydration Tool

Nighttime fluid planning

Diabetes Fasting Case

Risk informed nutrition care

CKD Fasting Case

Renal risk and nutrition framework

Pregnancy Fasting Case

Shared decision and nutrition assessment

Athlete Fasting Case

Training, hydration and recovery plan

Disordered Fasting Tool

Eating disorder risk identification

Prolonged Fasting Appraisal

Safety and evidence review

Refeeding Case

Controlled nutrition restoration framework

Fasting ADIME Portfolio

Professional documentation

Referral Framework

Endocrine, renal, obstetric, cardiac, mental health and sports pathways

Final Case Defense

Advanced fasting nutrition presentation

Expected Specialization Transformation

At Entry

At Completion

16 hours is when fat burning begins

I understand that substrate use changes gradually and does not follow a magical fasting threshold

Fasting boosts metabolism

I distinguish physiological mechanisms from demonstrated clinical outcomes

Fasting is superior to normal calorie restriction

I evaluate efficacy, adherence and patient preference rather than assuming superiority

Longer fasting gives greater benefit

I balance potential benefit against nutritional and clinical risk

Ramadan naturally causes weight loss

I understand that total intake, food choice, activity and sleep determine weight response

People with diabetes should not fast

I understand formal risk stratification and individualized medical

planning

Diabetes can fast if sugar is controlled

I recognize medication, hypoglycemia, DKA, dehydration and individual risk

Pregnant women can simply decide to fast or not

I understand evidence limitations and the importance of individualized obstetric assessment

OMAD is just another fasting schedule

I assess whether requirements can realistically be met in such a restricted eating pattern

Fasting rests the gut

I assess the actual GI condition rather than making universal gut healing claims

Fasting detoxifies the body

I understand normal hepatic and renal physiology and reject detox claims

Fasting is harmless if someone feels fine

I assess metabolic, nutritional, medication and eating disorder risks that may not initially produce symptoms

Breaking a prolonged fast simply means eating again

I recognize when refeeding syndrome risk requires controlled nutrition restoration

A fasting dietitian teaches people how not to eat

I determine when fasting is appropriate, how to make it nutritionally safer and when it should not be recommended

Final Learning Pathway

Learning Step

Learning Step

Understand Fasting Physiology

Understand Chrononutrition

Differentiate Fasting Models

Evaluate Fasting Evidence

Conduct Prefasting Assessment

Screen for Contraindications & Risk

Design Appropriate Eating Windows

Protect Energy & Protein

Protect Micronutrient Adequacy

Manage Intermittent Fasting

Manage Ramadan Nutrition

Plan Suhoor & Iftar

Manage Hydration

Apply Diabetes Risk Assessment

Integrate Medication Context

Adapt Fasting to Chronic Disease

Support Pregnancy Through Appropriate Referral

Adapt Fasting for Older Adults

Support Fasting Athletes

Manage Shift Work & Circadian Disruption

Recognize Disordered Fasting

Recognize Prolonged Fasting Risks

Identify Refeeding Syndrome Risk

Develop Nutrition Diagnosis

Provide Individualized Intervention

Monitor Outcomes

Document & Collaborate

Defend Advanced Fasting Cases

In One Line

This specialization develops dietitians who can critically evaluate and safely apply fasting related nutrition across intermittent fasting, time restricted eating, chrononutrition and Ramadan while integrating nutritional adequacy, diabetes and chronic disease risk, medication, hydration, pregnancy, athletic performance, eating disorder screening and refeeding safety rather than promoting fasting as a universal metabolic solution.