

FunctionalMedicineUniversity.com
Sequoia Education Systems, Inc
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Functional Medicine Training On-Line Program
CEUs Provided by: Southern California University of Health Sciences
General Information

Justification for CE Hours: The CE Hours are calculated by the number of minutes for each training video per course, the number of written pages the student must read in the course outline, supplemental required reading, and module examination reviews. The time to read the written material is based on an average reading speed of 300 words per minute.

Assessments: Each module is followed with an examination with a final examination upon the completion of Modules 1 through 10.

Module 1: *Functional Medicine: Introduction to Functional Diagnostic Medicine*

Description: This module provides an introduction to Functional Diagnostic Medicine (FDM). The module explores the FDM thinking process, how to implement Functional Diagnostic Medicine into practice and the essential elements for running a successful FDM business. An introduction to the Primary and Advanced methods of Functional Diagnosis and the various methods reports required, such as: the initial patient report, summary of findings report, and the patient progress questionnaire(s).

Goals and Objectives

At the conclusion of this module, the student will have a clear understanding of:

- How to implement the 7 steps that are part of the Functional Diagnostic Medicine (FDM) thinking process.
- The methods in which FDM is applied into practice and implementation of the FDM business system.
- The utilization and interpretation of FDM intake forms for new patients.
- How to interpret blood tests from a functional perspective.
- The 4 Quadrants of Functional Diagnosis.
- The concept(s) of Advanced Functional Diagnostic Medicine Testing and how and when to implement them in treatment.
- The necessary components and creation of the initial report of findings.
- The necessary components and creation of a summary report of findings.
- Interpretation of the patient's progress questionnaires and composing the report based on the findings.
- The basic structure of putting together gathered diagnostic data into an individualized treatment plan.

Course #	Course Title	Instructor	CE Hours
FDMT 501A	An introduction to Functional Diagnostic Medicine	Grisanti	1
FDMT 501B	The FDM Thinking Mechanism	Grisanti	1
FDMT 501C	Implementing FDM into your clinic	Grisanti	1
FDMT 501D	The business of running an FDM clinic	Grisanti	1
FDMT 501E	The New Patient Health History	Grisanti	2
FDMT 503A	Blood Chemistry & CBC Analysis	Grisanti	2
FDMT 505A	Intro to Advanced FDM Testing	Grisanti	1
FDMT 505B	The Initial Report, the Summary of Findings Report, and the Progress Questionnaire	Grisanti	1
Total Hours			10

Module 1a:

Below is a list of required reading, and listening for the Functional Medicine Training Program, along with where the topics can be located. The student may read, or listen to these materials at any time throughout the program; however, it is strongly advised that they do so as they are taking corresponding modules.

The required reading, and listening materials are responsible for **5 hours** earned for the 5.0 Functional Medicine Training Program. Information contained within these materials will be included on the end of module and final examinations.

Required	Location
Heart Sounds	http://www.functionalmedicineuniversity.com/members/department56.cfm
Normal S1	
Normal S2	
Normal Heart Sound	
Tricuspid	
Aortic Valve Stenosis	
Mitral Valve Prolapse	
Mitral Regurgitation	http://www.functionalmedicineuniversity.com/members/department130.cfm
All Medical Abstracts	

Module 2: *Functional Medicine: Digestion, Absorption and Mucosal Integrity*

Description: This module explores the complexity of the digestive system with the primary focus on digestion, absorption, and mucosal integrity. The lessons teach common dysfunctions in the digestive system and the various diagnostic methodologies of Functional Diagnostic Medicine that can be utilized to get to the underlying cause of the majority of digestive complaints seen in practice.

Goals and Objectives

At the completion of this module, the student will:

- Be able to identify the areas of the gut and the role their role(s) in digestion, absorption, utilization, and excretion.
- Have an understanding of the gut's role in immune regulation, the mucosal barrier, and the concept of the gut as a "second brain".
- Understand how the gastrointestinal system can become imbalanced and the effects that imbalance has on human physiology.

- Be able to gain a deep appreciation for diagnosis and treatment of Small Intestine Bowel Organisms (SIBO)
- Understand the concept of Primary Functional Diagnostic Medicine Testing and how to assess the GI health of patients.
- Learn the complex relationship between the GI and other systems of the body and how Advanced FDM testing can work to reveal the underlying cause of disorders.
- Learn how to interpret results from the following tests: Digestive Stool Analysis, Stool Pathogen/Dysbiosis testing (dysbiosis, candida and parasites), Intestinal Permeability Studies, Mucosal Barrier Test, and Organic Acid Analysis.
- Learn treatments that will focus on reducing inflammation, healing gut irritation and permeability, restoring microflora, optimizing absorption, and modulating the immune reaction.
- Get certified in gluten diagnosis and treatment.

Course #	Course Title	Instructor	CE Hours
FDMT 511A	The Triad of Gut Destruction	Burdette	2.5
FDMT 511B	The Gut-Brain Connection	Vreeland	2.0
FDMT 511C	Autoimmunity and the Gut	Carnahan	2.0
FDMT 511D	Physiology of the Gut Associated Lymphoid Tissue, Enteric Nervous System and Mucosal Barrier	Grisanti	1.0
FDMT 515A	Advanced FDM Testing -- Interpretation and Treatment: Stool analysis	Grisanti	2.0
FDMT 515B	Advanced FDM Testing -- Interpretation and Treatment: Stool pathogens - Bacteria, Parasites and Yeast	Grisanti	2.0
FDMT 515C	Advanced FDM Testing -- Interpretation and Treatment of the Intestinal Permeability Test	Grisanti	2.0
FDMT 515D	Advanced FDM Testing -- Interpretation and Treatment of the GI Portion of the Organic Acid Test	Grisanti	2.0
FDMT 515E	Advanced FDM Testing -- Interpretation and Treatment Intestinal Barrier Function Test	Grisanti	2.0
FDMT 517A	Clostridia Species as a Major Factor in Mental and Gastrointestinal Health	Shaw	2.0
FDMT 520A	Small Intestine Bacterial Overgrowth (SIBO) (Part 1)	Sandberg-Lewis	3.0
FDMT 520B	Advanced Stool Diagnostics: GI Effects and the Evolution of Gut Health Assessment	Stubbe	2.0
FDMT 520C	Small Intestine Bacterial Overgrowth (SIBO) (Part 2)	Sandberg-Lewis	2.0
FDMT 521A	The causes and Diverse Clinical Presentations of Gluten Related Disorders	Alexander	2.0
FDMT 521B	Gluten Certification	Osborne	4.0
FDMT 521C	Small Intestine Bacterial Overgrowth (SIBO) (Part 3)	Siebecker	3.0
Total Hours			35.5

Module 3: Functional Medicine: The Immune System

Description: This module is an exploration of the common dysfunctions in this system and that can be the various diagnostic methodologies of Functional Diagnostic Medicine used to get to the underlying cause of immune dysfunction will be discussed. Topics covered will be: celiac disease and gluten intolerance, food allergy testing, assessments for viral load and the modified elimination diet, and specific protocol(s) to reduce the problems associated with ingested food allergens. The final course covers patient specific treatments based on various diagnostic findings.

Goals and Objectives

At the conclusion of this module the student will:

- Understand the causative factors of allergies and auto-immunity and the emergence of chronic disease.
- Be able to identify the numerous triggers and mediators of the immune system, including the roles of nutrient deficiencies, hyperpermeability of the gut, and pharmaceutical drugs.
- Understand the role of the immune system in Chronic Fatigue Syndrome and other viral disorders.
- Understand the concept of Primary Functional Diagnostic Medicine (FDM) Testing and know to how to assess the immune health of patients.
- Know how to interpret results from allergy and viral load testing.
- Learn how to effectively improve the odds of surviving cancer
- Know how to treat immune imbalances beyond a lone approach of simply shutting down the symptoms by restoring function to the body, and treating the underlying cause beyond nutritional intervention, diet, exercise, and lifestyle modification.

Course #	Course Title	Instructor	CE Hours
FDMT 524A	Breast Cancer: Integrative Management Strategies	Alschuler	2.0
FDMT 524B	Uncover the Splinters in Autoimmunity	Corey	2.0
FDMT 525A	Advanced FDM Testing -- Interpretation and treatment of food allergy/sensitivity/intolerance testing	Grisanti	2.0
FDMT 525B	Advanced FDM Testing -- Secretory IgA testing	Grisanti	2.0
FDMT 525C	Advanced FDM Testing -- Interpretation and treatment: Viral screening	Grisanti	2.0
FDMT 527A	Functional Tests for Immune Tolerance: LRA by ELISA/ACT	Jaffe	2.0
FDMT 527C	Food Immune Reactivity and Autoimmunity	Vojdani	2.0
FDMT 527D	Becoming Immune to Cancer: Winning with Integrative Solutions for Prevention and Survival	Mead	2.0
FDMT 528A	Shifting the Paradigm of Depression: Psychoneuroimmunology	Brogan	2.0
FDMT 528B	Cancer Survivorship	Alschuler	3.0
FDMT 528C	Creating Health -- The Most Effective Treatment for Chronic Disease	Wahls	2.0
FDMT 5146	Immune Response as a Cause of Coronary Artery Disease	Kleber	2.0
FDMT 5188	Autoimmune Thyroiditis; Not a Numbers Game	Kleber	2.0
	Total Hours		27

Module 4: Functional Medicine: Oxidative Stress, Blood Sugar Regulation and Energy Production

Description: This module focuses on an understanding of how the body metabolizes glucose, fats, and proteins to produce energy and the consequences of dysregulation. It provides an insight into the causes of today's growing diabetes and obesity epidemic.

Goals and Objectives

At the conclusion of this module, students will:

- Understand the physiology and biochemistry of blood sugar regulation and energy production.

- Understand the factors that can cause blood sugar dysregulation, insulin resistance and diabetes.
- Be able to identify the various triggers and mediators of the immune system, including the role played by nutrient deficiencies, hyperpermeability of the gut, and pharmaceutical drugs.
- Know how to use symptom analysis, blood chemistry analysis, and advanced functional diagnostic laboratory results to assess blood sugar dysregulation, and utilize techniques to aid in the prevention of diabetes, obesity, metabolic syndrome, and cardiovascular disease.
- Know how to assess for oxidative stress, prevent organ damage caused by uncontrolled blood sugar levels, and other dysfunctions associated with it.
- Gain a better understanding of methylation
- Learn how to apply the science of mitochondrial medicine to their practice.
- Understand how to apply preventive care for blood sugar dysregulation and the damage caused by oxidative stress.

Course #	Course Title	Instructor	CE Hours
FDMT 531A	Insulin Resistance: Causes, Consequences and Solutions	Murphy	2.0
FDMT 531B	Understanding Methylation: The Roadmap to Wellness	Gant	2.5
FDMT 531D	Advanced FDM Testing -- Interpretation and treatment of Organic Acid Panel -- Energy and Oxidative Markers	Grisanti	2.0
FDMT 532A	MTHFR and Genetic Testing	Lynch	3.0
FDMT 532B	Neurotransmitter Primer	Ferris	2.0
FDMT 533D	Inflammation and Oxidative Stress; Major Players in Clinical Conditions	Kellermann	2.0
FDMT 532C	A Clinician's Guide to Mitochondrial Medicine	Kaiser	2.0
FDMT 532D	Demystifying chronic illness: Allostatic load as a unified model of chronic illness	Moss	4.0
Total Hours			19.5

Module 5: Functional Medicine: Inflammation, the Cardiovascular System and Autoimmunity

Description: This module looks at the role of inflammation in chronic dysfunctions and disease. Special topics include an in-depth look at cardiovascular disease and autoimmunity.

Goals and Objectives

At the conclusion of this module, students will:

- Understand the clinical factors that can cause depression
- Be able to identify the various triggers and mediators of the inflammatory process and its role in: nutrient deficiencies, hyperpermeability of the gut, allergies, the cardiovascular system and auto-immune disease, and pharmaceutical drugs.
- Know how to use first and second line testing(s) to help assess the different manifestations of osteoporosis.
- How to use diagnostic testing for patients suffering from cardiovascular disease and interpret the results.
- Know how to approach auto-immune conditions using FDM, assess the underlying cause, and prescribe individualized treatment protocol(s).

- Know how to treat inflammatory conditions beyond a lone approach of simply shutting down the symptoms by restoring function to the body, and treating the underlying cause beyond nutritional intervention, diet, exercise, and lifestyle modification.

Course #	Course Title	Instructor	CE Hours
FDMT 541B	Depression: "Probably Not What You Think It Is"	Gant	2.5
FDMT 541C	Osteoporosis: Etiology, Diagnosis, and the Use of Biomarkers to Design Therapeutic Protocol	McCormick	2.0
FDMT 542A	Hypertension- Finding the cause and the natural cure	Wolfson	2.0
FDMT542B	The Irregular Heart Beat: The Cause and the Cure	Wolfson	2.0
FDMT 543A	Special Topic: Cardiovascular Disease (3 Cases)	Grisanti	2.0
FDMT 543B	New Perspectives on Clinical Exercise (What Works)	Grisanti	5.0
FDMT 543C	The FDM Approach to Autoimmune Disease (Rheumatoid Arthritis)	Grisanti	2.0
FDMT 545B	Migraines: The Heart of the Matter	Wolfson	2.0
FDMT 545C	Unraveling Migraines: The Functional Medicine Approach	Elyaman	2.0
FDMT 545D	Quantifying the Anti-inflammatory Diet: A nutrient-based model	Reinagel	2.0
FDMT 545E	Alzheimer's disease: The Aging Brain	Vreeland	2.0
	Total Hours		25.5

Module 6: Functional Medicine: The Liver and Detoxification

Description: This module covers the problem of toxicity in the internal and external environment, the role of the liver in detoxifying toxins, and the Functional Diagnostic Medicine (FDM) approach to assessing and treating dysfunctions associated with environmental toxicity inclusive of heavy metals.

Goals and Objectives

At the conclusion of this module, the student will:

- Understand the 2 phases of liver detoxification and be able to relate problems in either of these areas to symptoms and dysfunctions commonly seen in practice.
- Know the role of the intestines in the detoxification and elimination of toxins.
- Understand the use of primary FDM testing(s) and how to assess a patient's detoxification ability and toxic burden through interpretation of a detoxification questionnaire utilize these findings with clinical cases.
- Know how to interpret a number of essential advanced FDM tests including the Liver Detoxification profile and RBC mineral testing.
- Understand the best method(s) of evaluating the presence of toxic elements such as heavy metals.
- Understand how to apply treatment approaches focused on removing the source of the exposure, reducing toxins in the body, and strengthening the body with appropriate supportive nutrients.
- Know how to implement a Functional Detoxification Program into practice and the best methods for effectively and efficiently removing toxic metals from the body.

Course #	Course Title	Instructor	CE Hours
FDMT 551A	Estrogen Metabolism and Breast Cancer	Zava	2
FDMT 551B	Mercurialism: Finding & Eliminating the Hidden Beast	Dooley	2
FDMT 553A	Toxic Mold- Part 1	Hooper	2
FDMT 553E	Toxic Mold- Part 2	Brewer	2
FDMT 553C	RBC minerals/Toxic Metals Interpretation and treatment	Grisanti	2
FDMT 553B	Organic Acid and Urinary Bile Acid Sulfates Testing and Detoxification	Grisanti	2
FDMT 553D	Estrogen Metabolite Testing (The Estronex Test)	Grisanti	2
FDMT 555A	Special Topic - Urinary Porphyrin Profiling	Grisanti	3
FDMT 555B	Demystifying Detoxification	Moss	4
FDMT 555D	Diagnosis and Treatment of Environmental Toxicity	Carnahan	2
	Total Hours		23

Module 7: Functional Medicine: NeuroEndocrine Regulation: The Adrenals, The Thyroid and Sex Hormone Regulation

Description: This module covers the intricate relationship between the main areas of the neuroendocrine system: Adrenals, Thyroid and Sex Hormone regulation. It teaches the various ways these systems become dysfunctional and examines the impact(s) that it has on human physiology. It also explores assessment and using Functional Diagnostic Medicine (FDM) to individually treat dysfunctions that arise in the neuroendocrine system.

Goals and Objectives

At the conclusion of this module, the student will:

- Have an understanding of the most effective ways to assess for hormonal dysregulation in all of the main neuroendocrine systems.
- Know how to read and interpret the thyroid panel on laboratory testing.
- Have a thorough understanding of the various interpretations that can be made from the tests on a thyroid panel and how they alter clinical treatment.
- Know how to interpret the Adrenal Stress Index test and utilize the various treatment protocols to restore adrenal function.
- Be able to analyze female and male sex hormone profiles for management of sex hormone dysregulation.
- Have an understanding how to interpret all of the findings in hormonal dysregulation cases and put together a comprehensive treatment strategy in complex cases.

Course #	Course Title	Instructor	CE Hours
FDMT 561A	Adrenal Stress Hormone Testing: Effective Ways to Support Your Patients' Health"	McMillin	2
FDMT 561C	Moodiness, Madness or Menopause?	Ferris	2
FDMT 563A	Eliminate Menstrual Complaints: Supporting Healthy Ovulation	Nelson	2
FDMT 561D	PCOS: The Art and Science of Management	Ginsberg	2
FDMT 562C	Interpretation of the Adrenal Stress Index Test	Grisanti	2
FDMT 562D	Adrenal Treatment Protocol	Grisanti	2
FDMT 565A	Iodine: The Most Misunderstood Nutrient	Brownstein	2
FDMT 567A	Interpretation of the Female Hormone Panel -- Pre-Menopausal	Grisanti	2

FDMT 567B	Interpretation of the Female Hormone Panel -- Post-Menopausal	Grisanti	2
FDMT 567C	Interpretation of the Male Hormone Panel	Grisanti	2
FDMT 568A	3 Scientifically Validated Steps to Naturally Restore Testosterone in Men	Smith	2
FDMT 568B	Exposing the Effects of Modern Stress: Nutritional Strategies to Optimize the HPA Axis	Schuler	2
FDMT 568C	Thyroid Diagnosis and Treatment	Brownstein	2
	Total Hours		26

Module 8: Functional Medicine: Psychological, Emotional and Spiritual Balance

Description: This module explores the roles of psychological, emotional and spiritual balance in health and wellness.

Goals and Objectives

At the conclusion of this module, students will:

- Know the most effective ways to assess for and treat stress in patients.
- Know how to effectively treat a patient using Emotional Freedom Technique.
- Understand the various toxic emotions, how they affect overall health, and how to work with patients to assist them in identifying their own emotional stress and the techniques used toward resolution.

Course #	Course Title	Instructor	CE Hours
FDMT 571A	Stress	Grisanti	2
FDMT 571B	EFT Tapping: Resolving the Emotional Aspects of Pain	Weiner	5
FDMT 571C	Toxic Stress	Grisanti	2
	Total Hours		9

Module 9: Functional Medicine: Structural Integrity and Weight Loss

Description: This module covers a proven system of structural and myofascial rehabilitation that advances the standard of Chiropractic care. Through 34 years of clinical practice experience and a diplomate degree in Chiropractic Orthopedics, Dr. Ron Grisanti teaches a functional biomechanical assessment that has proven to be effective on his own patients. This module also teaches a Functional Diagnostic Medicine (FDM) approach to clinical weight loss.

Goals and Objectives

At the conclusion of this module, students will:

- Know the most effective ways to assess and treat patients suffering from chronic cervical pain, low back pain, shoulder pain, and heel pain.
- Understand the functional approach to weight loss and exercise.
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Course #	Course Title	Instructor	CE Hours
FDMT 580A	Functional Approach to Neuromusculoskeletal Disorders	Grisanti	2

FDMT 580B	Functional Approach to Neuromusculoskeletal Disorders - Chronic Cervical Pain	Grisanti	2
FDMT 580C	Functional Approach to Neuromusculoskeletal Disorders - Lower Back Pain	Grisanti	2
FDMT 580D	Functional Approach to Neuromusculoskeletal Disorders-Frozen Shoulder: Adhesive Capsulitis	Grisanti	2
FDMT 580E	The Functional Approach to Neuromusculoskeletal Disorders- Chronic Plantar Heel Pain	Grisanti	2
FDMT 580F	The Functional Approach to Weight Loss and Exercise	Grisanti	2
	Total Hours		12

Module 10: Nutrition (Botanicals)

Description: A model will be presented which includes the concepts of hormesis, allostasis, organ reserve and human evolution detailing why phytochemical exposure is crucial to human health and why medicinal plants are sensible therapeutics.

Goals and Objectives

At the conclusion of this module, students will:

- Understand the paradigm that challenges the current pharmacological model which is currently based on using single isolated molecules.
- Learn how network pharmacology provides a more informative and better perspective on botanical therapies and a more accurate understanding of pharmacological MOAs
- Gain meaningful HDI data on the top 2 used medicinal plants

Course #	Course Title	Instructor	CE Hours
FDMT 1101	Phytochemistry in Human Health: A Model for Understanding the Need	Spelman	2
FDMT 1102	Ecological Pharmacology- A Co-evolutionary Dependence for Plants and Humans	Spelman	2
FDMT 1103	The Pharmacology of Medicinal Plants - A Glimpse at Network Pharmacology	Spelman	2
FDMT 1104	Herb-Drug Interactions - Perspectives and Data	Spelman	2
FDMT 1105	Cannabis 101 - An Introduction to Chemistry, Pharmacology, Safety and Therapeutics	Spelman	3
FDMT 1106	Pharmacogenetics -The Prescription Medication Puzzle	Ferdinand	2
	Total Hours		13