## Nutrition in the Medical School Curriculum What and where nutrition topics are taught by NAA faculty

University /Contact	Year 1	Year 2	Year 3	Year 4	Others (e.g., Residency and/or Nursing)
University of Alabama Medical School  Contact: Frank Franklin, MD.  Email: ffranklin@ped.u ab.edu	Nutrition Course-principles of clinical nutrition. Introduction to Clinical Medicine Course.	Introduction to Clinical Medicine Course.	Family Medicine Clerkship- Patient counseling and end-of- clerkship counseling performance test with a simulated patient. Pediatrics Clerkship Infant feeding Pediatric Obesity case in end of year examination.	Clerkship in Clinical Nutrition	Pediatrics Residency and Gastrointestinal Diseases and Nutrition fellowship.
Albert Einstein College of Medicine  Contact: Judith Wylie-Rosett  Email: jwrosett@aeco m.yu.edu	Small Group Case-Based Sessions – 3 Sessions in Preventive Medicine– Curriculum consultation nutrition issues related to Vitamin A in cancer, salt in hypertension, and lifestyle in diabetes prevention).	Small Group Case-Based Sessions-3 Sessions in Cardiopathophysiology and Endocrine Pathophysiology. Nutrition issues related to Lyon Heart Study, metabolic syndrome, hypercholesteremia. Introduction to Clinical Medicine (Nutrition Assessment). Gastrointestinal Pathophysiology (absorption disorders and nutrition interventions). Nervous System Pathophysiology (nutrition related focus on eating disorders).	Clinical Rotations in OB-GYN. Small group case- based session (1 hour). And Family Medicine: Behavior change for nutrition and exercise.	Geriatrics clerkship includes a web-based nutrition case.	Students do required scholarly project papers some of which are on nutrition topics.

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University of Arkansas for Medical Sciences  Contact: Ronald F. Kahn, MD.  Email: kahnronaldf@u ams.edu	Course Title: Introduction to clinical medicine 1 Components:  1. Nutrition and the Prevention of Coronary Heart Disease:  2. Nutrition assessment  3. Standardized family nutrition assessment  Number of Hours: 4  4. Supermarket Tour Number of Hours: 2  Course Title: Cell Biology Components: Biochemistry and Preventive Nutrition Clinical Correlations:  1. Hyperlipidemia 2. Diabetes 3. Folate/Homocysteine Number of Hours: 6	Course Title: Introduction to clinical medicine 2 Components:  1. Nutrition Counseling to Prevent Coronary Heart Disease – standardized patient counseling. Number of Hours: 4 2. Obesity – Will be added Fall 2004 Number of Hours: 2 3.OSCE – nutrition station.	Course Title: Family Medicine Clerkship Components:  1. CHD: Risk Factor and Nutrition Assessment Number of Hours: 2  2. Nutrition in Medicine Module: Diet, Obesity and cardiovascular disease Number of Hours: 2  Course Title: Pediatric Clerkship Components:  1. PBL: Adolescent Obesity and Diabetes Prevention Number of Hours: 2  2. Pediatric Nutrition Skills Number of Hours: 2	None	None
Brown University  Contact: Kim Gans. Ph.D.  Email: Kim gans@bro wn.edu	Medical Interviewing (nutrition component involves WAVE (Weight, Activity, Variety, and Excess) assessment tool and 24-hour recall; one hour lecture on How to Eat Healthy as a Medical Student.	Physical Diagnosis (nutrition component involves WAVE, physical diagnosis nutrition manual and half-hour lecture); Integration with year-long courses in Pathophysiology, Cardiology, Renal, Gastroenterology, Endocrinology, Human Reproduction, Growth, and Development.	Family Medicine Clerkship (includes small group session on nutrition counseling using WAVE and Rate Your Plate Instrument with a metabolic syndrome patient); Surgery Clerkship (involves 2 week selective on nutrition support); Pediatrics Clerkship (involves problem-based learning and discussion groups around childhood nutrition).	Preventive Cardiology Nutrition Elective, Surgical Nutrition Elective, mandatory Community Health Clerkship (Public Health Nutrition is one of the choices).	None

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University of Colorado School of Medicine  Contact: Nancy F. Krebs  Email: nancy.krebs@u chsc.edu	Course Title: Principles of Nutrition.  Components: Linking nutritional biochemistry to public health issues and clinical medicine.  Number of Hours: 20 (required Core curriculum)  Foundations of Doctoring: Introduction to clinical medicine; elements of history & exam relevant to nutrition status.  Nutrition Fair: multidisciplinary, hands-on learning experience.	Pathophysiology: Small case discussions in area of endocrinology, cardiology pulmonary, GI, and hematology; nutrition aspects incorporated into multiple case questions and discussions.  Foundations of Doctoring: advanced physical exam foe cardiovascular system, nutrition assessment for hyperlipidemia, obesity, BMI, waist circumference, skin findings.  Nutrition Fair: multidisciplinary, hands-on learning experience.	Family Medicine: Nutrition articles and tools included in orientation CD-ROM.  Internal Medicine: Nutrition content incorporated into required case workbook, requiring assessment and developing care plan.  Pediatrics: Core interactive small group discussions on infant nutrition, obesity, interactive nutrition digitized case studies (growth failure, obesity.)	Electives: Introduction to Clinical Nutrition – interdepartmental course, tailored to student's interest & future plans (e.g. Pediatrics, Family Medicine, OBGYN, Medicine); includes nutrition support, out-pt clinics (obesity, diabetes, growth, bone disease, GI/Liver), self-directed learning activities (including CD ROM's, calorimetry, DEXA.)  Breastfeeding Management: Students rotate in and out- of patient lactation clinics, complete choice of self-directed learning activities (CD-ROM, written paper, and view video), and written case-based exam.  Preparing for Residency: 2- hr session on nutrition assessment in hospitalized pt.	None

University/ Contact	Year 1	Year 2	Year 3	Year 4	Others (e.g., Residency and/or Nursing)
University fol Nu Contact: - I Christine l. Ad Williams, MD, Nu MPH Ca Die Email: Co chrisw320@aol. com Ca Bei the	ne hour in each of the ollowing nutrition courses: utrition Through the Life cycle I: Infancy, Childhood, dolescence, Elderly, utrition in the Prevention of ardiovascular Disease, iet Assessment and ounseling. utrition in the Prevention of ancer. Health-Related ehaviors and How to Influence em. wo hours of Nutrition and besity: Small Group Session.	A new educational material focused on "Nutrition in Physical Diagnosis" was developed and incorporated into the second year's medical school course on Physical Diagnosis. The material highlights physical signs of some common medical conditions including obesity, and tendinous xanthomas (sometimes seen in hypercholesterolemia); corneal arcus; acanthosis nigricans (often seen in association with hyperinsulinemia).	A one-hour session for all third year medical students on the pediatric clerkship was added to the curriculum beginning in July 2003. This session uses a case-based approach to helping students gain knowledge and clinical nutrition skills in four types of common pediatric medical problems that have significant nutrition components. The four mini cases discussed involve cases of hyperlipidemia, obesity, borderline high blood pressure, and underweight.	Three hour session on "Lifestyle Changes and Atherosclerosis."	Medicine Residents: the Lipid Clinic, as an outpatient teaching clinic in the Medical resident program continues to provide an enhanced focus on nutrition in patient care. Pediatric Residents: Case study in Pediatric Nutrition. A case based syllabus of pediatric nutrition cases for resident education. A new fellow in General

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Harvard Medical School  Contact: Francine Welty  Email: fwelty@bidmc. harvard.edu	Physical Diagnosis part 1. Nutrition assessment teaching. WAVE and REAP introduced.  Basic nutrition science is inserted throughout the year	14 week course. Content includes healthy diet, cardiovascular disease prevention, diabetes, obesity, popular diets, eating disorders, nutrition debates. WAVE/REAP used.  Physical Diagnosis part 2. Nutrition assessment and counseling reinforced.	Computer-based objective structured clinical exam to test nutrition assessment, counseling and application of nutrition principles at level of medical students.  3rd year Medicine Clerkship: Lecture summarizing evidence-based medicine supporting diet in prevention of MI and stroke to 3rd year students at Beth Israel Hospital.	Elective teaching: nutrition assessment and counseling using WAVE and REAP. Application of nutrition principles in cardiovascular disease prevention in outpatient lipid clinics at 4 hospitals (Beth Israel Deaconess Medical Center, Brigham and Women's Hospital, Massachusetts General Hospital and Children's Hospital) and Native American Reservation.  Use of General Clinical Research Center and dietary soy intervention in postmenopausal women as means for medical students to learn how to do dietary and cardiovascular risk assessment and dietary counseling with a dietitian's supervision.	Faculty development – Nutrition Counseling in Primary Care

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University of Iowa School of Medicine  Contact: Linda Snetselaar  Email: Linda-snetselaar@uiowa.edu	Medical student guest lecture and luncheon; lectures on obesity and motivational interviewing technique.	Panel lecture on team approach to Diabetes Control. Series of three medical student luncheons with dietitians explaining how to order patient meals.	Two-day Nutrition and Fitness Program within Ambulatory Medicine rotation.	Six-week elective on discussing nutrition with patients. Fellows: Endocrine lecture.	None
University of Maryland School of Medicine  Contact: Stephen Havas  Email: shavas@epi.um aryland.edu	This year, nutrition assessment lecture and case presentation: 1 hr (last year 6 hours on health/nutrition, nutrition in the lifecycle, fad diets, and nutrition assessment).	- Cardiovascular nutrition two hours of lecture - Cardiovascular nutrition in small group (two hours for each group) - Obesity case studies in small group (two hours for each group) - Hands-on nutritional and metabolic assessment lab.	Small web module on Medscope in epidemiology: longitudinal ambulatory section (previous two years 36 hours of didactic and experiential small group session time/group including cooking classes).	- Elective in Integrative Medicine contains five hours of nutrition - Grand Rounds on Nutrition.	None

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Mercer University School of Medicine (MUSM)  Contact: Brian W. Tobin  Email: tobin_bw@mercer.edu	Dietary / health assessment in orientation of new students. Nutrition Science taught in all Basic Medical Sciences phases. Community Science inclusion of preventive medicine cases. Weight Management Station in the MUSM Learning Resource Center.	Dietary / health assessment in orientation of new students.  Nutrition Science taught in all Basic Medical Sciences. Community Science inclusion of preventive medicine cases. Weight Management Station in the MUSM Learning Resource Center. Clinical Skills Program with nutrition assessment. Electronic Standardized Patients with IT (Information Technology) applications (Metabolic Syndrome).	Clinical Skills Program with nutrition assessment. Electronic Standardized Patients with IT applications (Metabolic Syndrome).	Clinical Skills Program with nutrition assessment. Electronic Standardized Patients with IT applications (Metabolic Syndrome).	None
University of Nevada School of Medicine  Contact: Sachiko St. Jeor  Email: sach@med.unr. edu	Medical Nutrition Course (MNC) is a 20 hour required spring semester course. Cardiovascular Disease, Cancer, Obesity and Diabetes are the focus of the course. Updates of the CD-ROM tutorials and lecture revisions have been well-received with several years of overall evaluation from 4.4/5.0.  2-3 medical students are selected each year to begin their Special Qualifications and Nutrition (SQIN) Fellowship. They start in the summer with a research project and continue each year until graduation when they are awarded plaques for special recognition at graduation.	Introduction to Patient Care I and II are courses in the first and second years that have a required nutrition component. The emphasis is nutrition assessment with both self-assessment and assessment within the outpatient setting.  2-3 Special Qualifications and Nutrition students continue to do special projects and presentations both locally and nationally.	Patient Care Management Course is a problem-based course with small groups that work on cases. About 75% of the cases have nutrition implications and faculty attend and provide contributions for 6 cases.  2-3 Special Qualifications and Nutrition students do special assignments in nutrition on various clerkships. Nutrition is integrated into various clerkships and specialty rotations, such as endocrinology (IM), FCM and surgery (where there is a faculty interest which can be cultivated by nutrition faculty and/or Special Qualifications and Nutrition students).	Electives are cross-listed in Internal Medicine and Family Medicine. The enrollment is primarily our Special Qualifications in Nutrition students; about 5-7% of our medical school students with other interested health profession students participating. The 662 elective usually has 10-15% of fourth year medical students who enroll. These electives are described as follows:  a. Independent Study in Clinical Nutrition, IMED/FCM 691 b. Nutrition Clinic Elective, IMED/FCM 668 c. Advanced Clinical Experiences in Nutrition, FCM 662.	Lectures to Residents in IM, FCM (Reno and LV) are offered throughout the year. 1-3 Medical Residents enroll in the SQIN Resident Fellowship each year.  The Special Qualifications and Nutrition extends to other students and has enrolled 2 nursing, 1 health ecology, 1 psychology and students in the public health program.

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Contact	2 000 2		2 002 5		Residency and/or Nursing)
Northwestern University Feinberg School of Medicine  Contact: Linda Van Horn, PhD.  Email: lvanhorn@north western.edu	Nutrition is integrated within the first year Structure/Function course for first year students. Introduction to normal nutrition recommended dietary guidelines, spotting fad diets and general awareness of nutritional assessment are introduced. Problem Based Learning (PBL) course involving case study review also incorporates nutrition issues.	10 hours of Nutrition Education are embedded within the Scientific Basis of Medicine Course (SBM) Evidence bases for dietary assessment prevention and treatment are presented for most chronic diseases including obesity cardiovascular disease, diabetes, cancer, osteoporosis and also major strategies in maternal, pediatric and geriatric nutrition. Additional topics include use or abuse of vitamins, minerals, supplements, and one session covers GI problems, (e.g., short bowel syndrome, GERD, Crohn's disease).	The third year students learn clinical nutrition concepts during the surgical, medicine, primary care and interdisciplinary clerkships. All third year students meet once per month. Both didactic lectures on clinical nutrition issues plus student led case studies precepted by RD (registered dietitian) or MD's are conducted. Also, students begin third year with "Introduction to Hospital Diets and Diet Orders conducted during Introduction to Clinical Clerkship week. Students see, taste, and hear about the different prescription diets, when to consult an RD and how to make appropriate counseling decisions.	Nutrition electives/self-study is available to fourth year students.	CME nutrition lectures and seminars occur as time and funding allow.
University of Pennsylvania School of Medicine Contact: Lisa Hark, Ph.D, R.D Email: <a href="mailto:lhark@mail.medu.upenn.edu">lhark@mail.medu.upenn.edu</a>	Introduction to Clinical Medicine, Biochemistry, History Taking, and Counseling courses.	Nutrition is integrated into the Integrative Systems and Disease course: Cardiology, Renal, GI/Nutrition, Brain/Behavior, Psychiatry, Geriatrics, Pulmonary, Endocrine, Reproduction, and Hematology courses.	Nutrition is integrated into Clinical Clerkships: Medicine, Family Medicine, Surgery, OB/GYN, and Pediatric clerkships.	Nutrition is integrated into Frontiers in Medicine course: Complementary and Alternative Medicine Elective.	None

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University of	a) Nutrition in Epidemiology	Nutrition in Ambulatory Care	Clinical Clerkships: Nutrition	Nutrition Electives.	a) RN curriculum:
Rochester	and Biochemistry: Biochemistry	Medicine and Pathology.	in pediatrics, surgery,		Includes lecture
School of	and molecular genetics-includes	Students are instructed in	psychiatry and internal		on disease
Medicine	lectures on cholesterol synthesis,	clinical history physical	medicine.		prevention, a
	macronutrient, and nutrition	examination and counseling			semester-long
Contact:	assessment. (13 hours of	methods. Summer electives in	Nutrition research electives.		course.
Thomas Pearson	instruction; 6 hours of PBL	nutrition research.			
	cases)				b) Post doctoral
Email: Thomas-					fellowship in
pearson@urmc.	b) Mastering medical				preventive
rochester.edu	information: Includes				cardiology.
	introduction to Nutrition Theme,				
	4-day diet diaries, problem-				c) Post graduate
	based learning case, food-borne				training in clinical
	outbreak and biopsychosocial				research.
	effects in chronic diseases. (4				
	weeks)				d) Preceptorships
					in nutrition for
					Residents.
					e) Lectures to
					cardiology
					fellows.
					10110 W.S.
					f) Continuing
					Professional
					Education
					Programs.

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Stanford School	Fall Qtr:	Fall Qtr:			
of Medicine	Unit 1: Nutrition Basics	Unit 8: Nutrition Therapy for			
	Unit 2: Carbohydrates	Gastrointestinal Disorders			
Contact:	Unit 3: Proteins & Amino Acids	Unit 9: Nutrition Modifications	None	None	None
	Unit 4: Lipids	for Cancer Therapy			
Email:	Unit 5: Energy	Unit 10: Enteral and Parenteral			
nutrition@sum	Unit 11: Nutritional Status	Nutrition Therapy			
mit.standord.ed	Assessment	Winter Qtr:			
<u>u</u> .	Fall Qtr:	Unit 2: Nutrition During			
	Unit 6: Vitamins I	Pregnancy			
	Unit 7: Vitamins II	Unit 3: Nutrition During			
	Unit 8: Minerals: Electrolytes	Infancy, Childhood, and			
	Unit 9: Minerals: Calcium,	Adolescence			
	Phosphorus, Magnesium,	Unit 4: Nutrition for Older			
	Fluoride.	Adults (50 years and older)			
	Unit 10: Minerals: Iron, Zinc,	Unit 11: Contemporary Trends.			
	Selenium, Copper				
	Spring Qtr:				
	Unit 1: Role of Nutrition in				
	Maintaining Overall Health				
	Unit 5: Prevention and				
	Treatment of Obesity				
	Unit 6: Prevention and				
	Treatment of Cardiovascular				
	Disease (CVD)				
	Unit 7: Nutrition Therapy for				
	Diabetes Mellitus.				

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University of Texas Medical School Houston, Texas  Contact: Marilyn Edwards  Email: marilyn.s.edwar ds@uth.tmc.edu	Introduction to Clinical Medicine (Web-based Module: Nutrition in Preventive Medicine).	Physical Diagnosis (Nutrition in Medicine; standardized patients), Reproductive Biology (nutrition lecture), Pharmacology: nutrient and herbal supplements; Problem Based Learning cases including obesity, diabetes, cardiovascular disease, gastrointestinal/liver disease, cancer, cystic fibrosis, failure to thrive, and AIDS.	Internal Medicine Core Curriculum nutrition lecture; Technical Skills: Writing a Hospital Diet Order.	Internal Medicine Clinical Nutrition Elective: Metabolic Syndrome (4 weeks).	None
University of Texas Southwestern Medical Center Contact: Jo Ann S. Carson, PhD, RD. LD. Email: joann.carson@u tsouthwestern.e du	Nutrition is integrated into the biochemistry curriculum. Topics discussed include metabolism, fad diets, fat and water soluble vitamins (5 contact hours).  Nutrition Elective covers Macronutrients and Dietary Guidance with illustrations from cases of management of obesity and CHD risk. [20% of all first year students (n=40) students complete the course.] (12 contact hours).	Assessing Nutritional Deficiency Signs in Pathology (1 contact hour).  Nutrition in Cancer Risk Reduction is part of a new Cancer Prevention Elective (1 contact hour).  [Non-NAA faculty teach vitamin D and calcium in endocrinology and bone lecture; 0.5 contact hour].	Nutrition is integrated into Family Medicine, Pediatrics Ambulatory Care and OB-GYN. Introduction of WAVE, obesity and nutrition guidelines (3 contact hours).  Nutrition Primer on basic nutrition and diet orders is provided in Internal Medicine rotation  [Non-NAA faculty provide Surgical Metabolism lecture in Surgery rotation—1 contact hours].	Nutrition is integrated into Ambulatory Care Rotation, (Internal Medicine, Family Medicine, and Women's Health.) (approximately 6 contact hours).	Physician Assistant students also participate in the computerized cases for OB- GYN and Ambulatory Care. (Approximately 8 contact hours) Dietary Supplements and use of WAVE have been a topic in Internal Medicine Ambulatory Care Residency Rotation (2.5 contact hours).

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Tufts University School of Medicine  Contact: Margo Woods  Email: margo.woods@t ufts.edu	Nutrition and Medicine course, twenty-seven hours required course.	None	Clerkships in Internal Medicine and Family Medicine have 4-6 hours of nutrition and a standardized patient exercise on CVD and Weight Loss.	None	Internal Medicine Residents: 6 nutrition sessions. Family Medicine Residents: 8 nutrition sessions. Family Medicine Faculty: 4 nutrition sessions based on a standard approach to nutrition intervention based on the DASH diet.
University of Vermont  Contact: Mark Levine  Email: mark.levine@vt mednet.org	Nutrition, Metabolism, Gastrointestinal (GI) Course includes:  — Iron metabolism.  — Calcium metabolism and osteoporosis.  — Eating disorders, breast feeding. Convergence Multidisciplinary PBL (Problem Based Learning) approach to case discussion) — diabetes, alcoholism, liver disease, and nutrition issues.	Nutrition topics include: Nutrition screening and assessment, hospital diet components and sampling, weight management in the overweight patient, diet in cancer prevention, practical use of dietary guidelines, dietary requirements in health and disease, diet and end stage renal disease, nutrition and hydration at the end of life, malnutrition in chronic disease setting, intrabridge curricula during outpatient primary care block, screening, hyperlipidemia, diet and cardiovascular disease prevention, curricula during OBGYN/Surgery block (e.g., perioperative nutrition, nutritional assessment of surgical patients).	(Same as in Year 2)	None	All Three years of Internal Medicine Residency pre-clinic curricula (modules developed around nutritional curricula objectives such as prevention and management of cardiovascular disease (lipids, hypertension, diabetes, obesity). Motivational interviewing training for residents.

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University of Washington School of Medicine  Contact: Robert Knopp  Email: rhknopp@u.was hington.edu	Nutrition in Standardized Patient Exams.	Core Course in Obesity, Standardized Patient Exams, Pediatric, Obstetric, Elderly, and Diabetes.	Obesity Taste and Tour Elective.	Taste and Tour Elective.	None
University of Wisconsin  Contact: Gail Underbakke, Ph.D.  Email: pem@medicine. wisc.edu	Nutrition as part of the interviewing course.	Clinical nutrition in second semester, one credit, twenty hours.	Nutrition integrated into medicine clerkship.	Nutrition integrated into primary care preceptorship.	CME preceptors resident physicians and established physicians