COURSE TITLE: **SUGAR HIGH: Glycemic Index & Better Carb Choices**

WA CLOCK HRS: **60**
OREGON PDUs: **60**
PENNSYLVANIA ACT 48: **60**

NO. OF CREDITS: **6 QUARTER CREDITS**
[semester equivalent = 4.00 credits]

INSTRUCTOR: **Shaila Bora**
kharisma.bora@gmail.com

COURSE DESCRIPTION:
We've all heard the comment: "If you are fat, it's because you eat too much and you don't exercise enough" and yet for over 50 years low calorie diets and more exercise have not managed to curb obesity levels. Are you wondering why? In this course for K-12 educators you finally will uncover the secret everyone wants to know, the real cause of weight gain. Enhance student focus and learning by integrating Glycemic Index know-how essentials into your curriculum. When we select a wide variety of low glycemic index foods, students, everyone, can prevent excessive weight gain. Maintaining optimal weight does not mean eating less and exercising more, but eating better, in the lunchroom and at home.

LEARNING OUTCOMES: Upon completion of this course, participants will have:

1. Explained and summarized the nutritional paradox to understand why one-third of Americans are overweight/obese.
2. Learned about the relationship between two essential metabolic processes: glycemia and insulin secretion to uncover the real cause of weight gain.
3. Utilized the Glycemic Index and identified the food factors that modify Glycemic Index.
4. Learned how to limit weight gain by selecting carbohydrates based upon their Glycemic Index.
5. Reflected on their own nutritional choices and focused on how to include nutrition in their teaching.
6. Viewed a number of school lunch models that highlight how to eat and cook the low glycemic way.
7. Posed questions concerning nutrition as it relates to influencing students' motivation, attitudes, and by incorporating Glycemic Index guidelines into school lunches or classroom learning, to influence eating behaviors through healthier choices.

COURSE REQUIREMENTS:
Completion of all specified assignments is required for issuance of hours or credit. The Heritage Institute does not award partial credit.

HOURS EARNED:
Completing the basic assignments (Section A. Information Acquisition) for this course automatically earns participant's their choice of CEUs (Continuing Education Units), Washington State Clock Hours, Oregon PDUs, or Pennsylvania ACT 48 Hours. The Heritage Institute offers CEUs and is an approved provider of Washington State Clock Hours, Oregon PDUs, and Pennsylvania ACT 48 Hours.

UNIVERSITY QUARTER CREDIT INFORMATION

REQUIREMENTS FOR UNIVERSITY QUARTER CREDIT
Continuing Education Quarter credits are awarded by Antioch University Seattle (AUS). AUS requires 75% or better for credit at the 400 level and 85% or better to issue credit at the 500 level. These criteria refer both to the amount and quality of work submitted.

1. Completion of Information Acquisition assignments 30%
2. Completion of Learning Application assignments 40%
3. Completion of Integration Paper assignment 30%

CREDIT/NO CREDIT (No Letter Grades or Numeric Equivalents on Transcripts)
Antioch University Seattle (AUS) Continuing Education Quarter credit is offered on a Credit/No Credit basis; neither letter grades nor numeric equivalents are on a transcript. 400 level credit is equal to a "C" or better, 500 level credit is equal to a "B" or better. This information is on the back of the transcript.

AUS Continuing Education quarter credits may or may not be accepted into degree programs. Prior to registering determine with your district personnel, department head, or state education office the acceptability of these credits for your purpose.

ADDITIONAL COURSE INFORMATION

REQUIRED TEXT

Required text *Glycemic Index Diet for Weight Loss by Michel Montignac.* 2010. ISBN 978-2-35934-037-2 available from Amazon.com for approximately $1.99 used plus shipping.

None. All reading is online.

MATERIALS FEE

Text, Glycemic Index Diet for Weight Loss by Michel Montignac. 2010. ISBN 978-2-35934-037-2 available from Amazon.com for approximately $1.99 used plus shipping.

ASSIGNMENTS REQUIRED FOR HOURS OR UNIVERSITY QUARTER CREDIT

A. INFORMATION ACQUISITION

Assignment #1: Introduction.
Describe your current professional situation. State your motivation for enrolling in this course. Use your prior knowledge to explain how and why you think we gain weight.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #1.'**

Assignment #2: Insulin - The Key to Everything.
In the text *Glycemic Index Diet*, read the Introduction, pages 9-13.

- Watch this YouTube presentation:
- ***Insulin Levels are the Key to Everything*** WellBeingGPS.com: https://youtu.be/n0zRiiFGGyk

(The presentation is a bit dry but hang in there! Listen for key foundational knowledge you will want to consider when deciding how to change up your meals, so take your time and listen in segments if you must. Toward the end please find action-oriented questions with real answers!)

In a 1-2 page paper: Summarize the 3 nutritional paradoxes and explain the relationship between obesity rates in developed countries vs caloric intake & exercise. Be sure you understand the implications of caloric restriction and how to keep insulin levels controlled through what you eat.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #2.'**

Assignment #3: The Nature of Food & Insulin metabolism.
Continue reading the Introduction, pages 14-23.

- Describe in your own words, in three (3) paragraphs, the essential metabolic ideas: Glycemia, Insulin Secretion, and their relationship which is known as the Insulin Response.

- In another paragraph describe Hyperinsulinism and how it is the cause of weight gain. In a final paragraph describe how the nature of food can decrease blood sugar level.
- Create a graphic organizer entitled The Nature of Food: Storage or Burning. Use the bullets on p. 14 to illustrate the different factors.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #3.'**

Assignment #4: Book Review: Glycemic Index.
In the text read about the Glycemic Index, pages 25-33.

- Go to the Amazon website. Choose Books, type in the search box: glycemic index.
- Choose three (3) "Look Inside" Books to browse through.
- Write a Thumbs Up or Thumbs Down review *for each book* based on whether or not you would want to learn and share more by reading the actual book.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #4.'**

Assignment #5: The Weight of the Nation.
In the text read *Analyzing the GI Table*, pages 35-45.

- Go to the website: http://topdocumentaryfilms.com/weight-nation-children-crisis/
- Click on the YouTube and watch *The Weight of the Nation Part 3 Children In Crisis.* Start at 30:10 National School Lunch Program and end after the discussion of the *Healthy Hunger-Free Kids Act.*
- Take a position: Does the Act support what you have learned and know about high and low Glycemic Index carbohydrates? Compose a 1-2 page opinion paper.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #5.'**

Assignment #6: Why Are the French Slimmer?
Watch on YouTube:

1. https://www.youtube.com/watch?v=FGudF2imcvc French vs American School Lunch

2. https://www.youtube.com/watch?v=VLLZazy0R7Y Why French People Don't Get Fat: The REAL reasons!

3. https://www.youtube.com/watch?v=ovO18E-hgew France's Gourmet School Lunches

In a 1-2 page paper, compare and contrast the school lunch information in The Weight of the Nation with that of the French. Use specific examples relating to Glycemic Index to illustrate and support your comparison. What we can learn from the French?

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #6.'**

Assignment #7: GI Factors to Consider .
Read about the Factors That Modify Glycemic Index on pages 47-64.

- Design a visual presentation to introduce the Factors. See the conclusion on page 62-64 as an overview.
- Explain in age appropriate wording, how the carbohydrate structure changes:

  1) Heating & moisture retention
  2) Hydration & heat
  3) Pastification 4) retrogration 5) degree of ripening & aging 6) acidity 7) particle size.

- WInd up with a few slides that encourage easy to do modifications for cooking and storage of some popular carbohydrates.

Send to instructor: kharisma.bora@gmail.com. Subject line to read 'Sugar High #7.'

Assignment #8: Lunch Lesson.
Use the information from pages 20-23 and your visual presentation work from assignment #7 to complete **one (1)** of the following assignment options:

Option A)
Watch *Jamie's Dream School- Jamie Vs McNuggets* http://youtu.be/RKCYucvop1U

- Develop a lunch lesson to explain why the carbohydrates in a meal: French fries, bun, breading, soda, chocolate milk, ketchup cause weight gain. (one example is a McDonald's Happy Meal)

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #8A.'**

OR

Option B)
Watch the TED talk: *Ann Cooper: What's Wrong with School Lunches.*
https://www.ted.com/talks/ann_cooper_what_s_wrong_with_school_lunches

- Develop a lunch lesson which uses the Glycemic Index to determine whether a favorite school lunch meal will cause weight gain or not.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #8B.'**

Assignment #9: School/Personal Lunch Reform.
The *Rethinking School Lunch Guide,* published in 2004 and revised in 2010, is a downloadable pdf that explains the rationale for reforming school food and explores the 10 pathways that constitute this planning framework.
Go to http://www.ecoliteracy.org/downloads/rethinking-school-lunch-guide Roam around the links and sample some of the readings.

In a 1-2 page response:

- List and annotate your insights from the guide (a two column format: for example, column 1 Insight column 2 Annotation
- Conclude with a paragraph that answers this question: If you were going to share insights for reform suggestions from these sources with another person, who would that be and what would you suggest as a first step?

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #9.'**

ADDITIONAL ASSIGNMENTS REQUIRED FOR UNIVERSITY QUARTER CREDIT

B. LEARNING APPLICATION
In this section you will apply your learning to your professional situation. This course assumes that most participants are classroom teachers who have access to students. If you are not teaching in a classroom, please contact the instructor for course modifications. If you are a classroom teacher and start or need to complete this course during the summer, please try to apply your ideas when possible with youth from your neighborhood, at a local public library or parks department facility, (they will often be glad to sponsor community-based learning), or with students in another teacher's summer classroom in session.

Assignment #10: Live Longer the Low-Glycemic Way.
Lower blood sugar levels promote health, quality of life, longevity and weight loss.
Take a look at your lunches.

- Check and rate the carbohyrates using the glycemic lists (p.75-95.)
- Consider where *low GI* swaps are possible.
- Design a lower GI lunch menu for yourself, with some caloric restriction. Eat your super charged lunches for two (2) weeks or longer.

Share your story in a 1-2 page paper or in a short ppt. show. Conclude with three (3) easy to do suggestions for learners, suggestions that support healthier lunches, anywhere.

Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #10.'**

Assignment #11: Develop a Lesson.
Complete one (1) of the following assignment options:
(SEND commentary to Instructor)
Assignment #A:

- Develop a lesson to reflect what you've learned in this course.
- Implement your lesson with students in your classroom.
- Write a 2 -page commentary on what worked well and what could be improved.
-

Include any student feedback on your lesson.

OR

Assignment #B:

- (SEND lesson and summary to Instructor) *Use this option if you do not have a classroom available.*
- Develop a lesson to reflect what you've learned in this course. (Do not implement it.)
- Write a 2- page summary concerning any noteworthy success you've had as a teacher with one or more students.

Send to instructor: kharisma.bora@gmail.com. Subject line to read 'Sugar High #11 (A or B.)'

Assignment #12: (500 Level ONLY)
In addition to the 400 level assignments, complete **one (1)** of the following assignment options:

Option A)
Do We Really Need Grains?
Learn more about wheat and its impact on weight gain. Watch the two videos below on YouTube:

- William Davis - Wheat: The UNhealthy Whole Grain: http://youtu.be/UbBURnqYVzw
- 10 Reasons To Stop Eating Wheat: http://youtu.be/Psnn9ttL6A0

Write a 1-2 page paper summarizing your thoughts on this topic. Include how you might integrate your learning into your existing curriculum.
Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #12A.'**

OR

Option B)
Eat and Cook the Low Glycemic Way
Another assignment of your own design based on the title theme above.
Send to instructor: kharisma.bora@gmail.com**. Subject line to read 'Sugar High #12B.'**

C. INTEGRATION PAPER
Assignment #13: (Required for 400 and 500 Level)

SELF REFLECTION & INTEGRATION PAPER
(Please do not write this paper until you've completed all of your other assignments.)

1. What did you learn vs. what you expected to learn from this course?
2. What aspects of the course were most helpful and why?
3. What further knowledge and skills in this general area do you feel you need?
4. How, when, and where will you use what you have learned?
5. How and with what other school or community members might you share what you learned?

Send to your instructor at their email address. Subject line to read "(put c*ourse name here*) Integration Paper"

INSTRUCTOR COMMENTS ON YOUR WORK:
Instructors will comment on each assignment. If you do not hear from the instructor within a few days of posting your assignment, please get in touch with them immediately.

QUALIFICATIONS FOR TEACHING THIS COURSE:
Shaila Bora, M.A. is currently working toward her PH.D. in Philosophy. Courses offered by Shaila are designed to tap into the creative potential and intuitive knowledge that each of us carries within. Through light touch supervision, we will open a dialogue that encourages experimentation with new techniques, and ways of being and doing that are already latent and waiting to be called forth. Nurturing this unique artistic spirit entails reflecting on and acting from your own experiences, observations, suggestions, questions, relationships, and perhaps a gentle nudge from a supportive someone else. So go ahead and choose the adventure that commands your thoughts and liberates your energy. Are you ready to try something new now? Come on, jump in, and let the magic happen.

BIBLIOGRAPHY

SUGAR HIGH: Glycemic Index & Better Carb Choices

Calimeris, Dorothy, T*he Complete Anti-Inflammatory Diet for Beginners: A No-Stress Meal Plan with Easy Recipes to Heal the Immune System* (April 11, 2017), Rockridge Press,162 pages. ISBN-13: 978-1623159047. "I'm not even entirely sure that this book is related to the glycemic index. In the pages I viewed, I didn't see any mention of the glycemic index, however, it was the third book that popped up when typing in the search words, and it was even flagged as "Amazon's choice." Anyway, I really liked this book, and would give it a thumbs up review. It's colorful, with pictures, easy to read, and offers easy to follow recipes, a meal plan, and tips for maintaining a diet that reduces inflammation. The recipes sound and look really yummy too! The book offers lots of information regarding inflammation and lists out foods that help reduce inflammation. It even lays it out in an easy-to-read table with "foods to enjoy," "foods to consider with care," and "foods to avoid." I also really enjoyed how the book has a page offering tips for saving time and meal prepping in advance, which is great in a household like ours, where both adults work full-time."--- Lorissa Brose, course participant

LeBillon, Karen. *French Kids Eat Everything.* New York, NY. Harper Collins. 2012.
ISBN 978-0062103291
The title says it all.

Levine, Susan. *School Lunch Politics: The Surprising History of America's Favorite Welfare Program.* Princeton, NJ. Princeton University Press, 2010.
ISBN 978-0691146195
This book chronicles the fascinating history of perhaps the most popular social welfare program in the US: The National School Lunch Program.

Lieberman,M.D., Shari. *Glycemic Index Food Guide: For Weight Loss, Cardiovascular Health, Diabetic Management and Maximum Energy.* Garden City Park, NY. Square One Publishers. 2006. 160 pages.
ISBN-13: 978-0757002458
"This book is interesting and broke into two parts. Part One's information is *given in a very different approach* .... This section is designed as a question/ answer approach. It does begin with how we need to understand carbohydrates and the glycemic index and then talks about the health disorders associated with the glycemic index. It goes into details on diabetes, obesity, cardiovascular disease, metabolic syndrome, cancer, fatigue and how the glycemic index diet can help improve overall health." - Kathy Delvo, course participant

Montignac, Michael. *Glycemic Index Diet for Weight Loss. New York, NY.* HarperPerennial. 2010.
ISBN 978-2-35934-037-2.
Text for this course.

Oliver, Jamie. *Cook with Jamie: My Guide to Making You a Better Cook. New York, NY.* Hyperion. 2007.
ISBN-13: 978-1401322335
Learn cooking basics using quick and easy recipes with hints, pictures and techniques. Great for making simple meals at home on those working days or even in school with your students!

Perlmutter, M.D., David. *Grain Brain: The Surprising Truth about Wheat, Carbs, and Sugar--Your Brain's Silent Killers.* New York, NY. Little, Brown and Company, 2013.
ISBN 978-0316234801
This book explains how the current American diet rich in gluten and inflammatory foods is linked to brain diseases. Read about the correlation between modern wheat and diseases such as ADHD, Alzheimer's and dementia.

Pollan, Michael. *Food Rules: An Eater's Manual.* New York, NY. The Penguin Press, 2009.
ISBN-13: 978-0143116387
Pollan makes a passionate appeal in this skinny paperback: Eat food, not too much, mostly plants. If you are not eating as well as you'd like to, then this book is for you.

Film Clips

The Secrets of Sugar - the fifth estate - CBC News
Check out this video on YouTube:
http://youtu.be/xDaYa0AB8TQ

Is Sugar Toxic - 60 Minutes Investigates
Check out this video on YouTube:
http://youtu.be/6n29ZIJ-jQA

Sugar: The Bitter Truth
Check out this video on YouTube:
http://youtu.be/dBnniua6-oM

Cooking with California Food in K-12 Schools | Fed Up With Lunch
http://fedupwithlunch.com/2012/02/cooking-with-california-food-in-k-12-schools/

Websites

The Weston A. Price Foundation
www.westonaprice.org
A number of brochures for Wise Traditions are available.

McDonald's 4 Year Old Cheeseburger Video

http://www.youtube.com/watch?v=4lGtDPG4UfI&feature=channel
Whether it is true or not, it does make one pause and think.
A DVD and book, Food & Behavior, on the project in Wisconsin
How breathing and metabolism are interconnected | Ruben Meerman | TEDxBundaberg
https://www.youtube.com/watch?v=nM-ySWyID9o&t=6s
Ruben shares his knowledge on how to breathe yourself thin by explaining where fat goes when you lose weight. Ruben's research was published in the British Medical Journal and he is the author of *Big Fat Myths*.
Movies
Babbett's Feast
Babbett, a French maid to two Danish spinsters, wins the lottery and decides to create a French feast for her employers. A real window into the world of real food. It won the 1987 Academy Award for Best Foreign Language Film.
Food Inc.
"You'll never look at dinner the same way again."
The Future of Food
Before compiling your next grocery list, you might want to watch this eye-opening documentary, which sheds light on a shadowy relationship between agriculture, big business and government. By examining the effects of biotechnology on the nation's smallest farmers, director Deborah Koons Garcia reveals the unappetizing truth about genetically modified foods: You could unknowingly be serving them for dinner!
King Corn
Picking up where *Super Size Me* left off, *King Corn* examines America's health woes through the multifaceted lens of one humble grain that has successfully reproduced itself across the land. This film offers irrefutable proof that the American consumer is virtually drowning in the corn avalanche. A provocative and creative film appealing to everyone and particularly all science students.
Like Water for Chocolate
A tale of forbidden love--- this is the story of a young woman who learns to suppress her passions under the eye of a stern mother, but channels them into her cooking. Another film depicting the wisdom of cuisine and its sensual affects. Spanish with subtitles.
Never Say Die
A PBS documentary from Scientific American Frontiers which reviews research about the benefits of caloric restricted diets and the correlation to longevity.
The Real Dirt on Farmer John
Filmmaker Taggart Siegel paints a fascinating portrait of a man who refused to yield. By transforming his farm into an experimental haven in the late 1960s, John Peterson attracted hundreds of artists, hippies and other political radicals. But when the agriculture crisis of the late 1980s led to the farm's eventual collapse -- and his neighbors publicly branded him a devil worshipper -- most locals thought he'd call it quits. They were wrong.
Super Size Me
On the heels of recent lawsuits against McDonald's, director Morgan Spurlock takes a hilarious and often terrifying look at the effects of fast food on the human body. For one month, Spurlock eats nothing but McDonald's food, ordering everything on the menu at least once and "super-sizing" his order if asked. With obesity on the rise, Spurlock's film begs the question: Where does personal responsibility end and corporate responsibility begin?