

# Undergraduate Research Methods

APK 4050 | Class # 10563 | Section 1B39 | 3 Credits | FA 22

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## Course Info

### INSTRUCTOR

**Diba Mani, Ph.D.**

Email: [dmani@ufl.edu](mailto:dmani@ufl.edu)

Method of Contact: Canvas Messaging for presently enrolled students

Preferred pronouns: she/her

### OFFICE HOURS

Virtual; details posted on Canvas

### MEETING TIME/LOCATION

Access course through Canvas on UF e-Learning

(<https://elearning.ufl.edu/>) and the Canvas mobile app by Instructure.

There are no in-person meetings for this course.

## COURSE DESCRIPTION

The course provides an understanding of basic concepts and techniques used in applied physiology and kinesiology. Students will demonstrate their knowledge of the course materials by analyzing, interpreting, and summarizing research, writing for professional journals, and by planning/evaluating research studies.

## PREREQUISITE KNOWLEDGE AND SKILLS

Some background in math and science. Students enrolling in this course must have at least the following minimum technical skills to succeed:

- General computer literacy is expected in this course. Ensure that your internet browser and extension are up to date before taking any exams.
- Using the learning management system, Canvas
- Using e-mail with attachments
- Microsoft Office: Word, PowerPoint
- Using Zoom video conferencing
- Downloading and installing software such as Google Chrome with extension for HonorLock
- Problem solving any download issues for software used in the course
- Incorporating applications associated with Canvas, such as Flipgrid and VoiceThread
- Critical thinking in using web resources

## REQUIRED AND RECOMMENDED MATERIALS

The required textbook for this course is Ian Jones and Chris Gratton's, "Research Methods for Sports Studies" (Third Edition by Taylor & Francis Group). Print ISBN: 9780415749329. Ebook ISBN: 9781317749899.

You may access this book for free through the UF Libraries or purchase your own. Information on acquiring this textbook via UF may be found via ProQuest Ebook Central on <https://ebookcentral.proquest.com/lib/ufl/detail.action?docID=1883912>. Additional information for Distance Learning and UF Online Students is available on <https://guides.uflib.ufl.edu/distancelearners>.



Additional content will be accessible through online resources, which are provided at no cost to you if you sign in with the UF VPN. Additionally, you will have access (via internet) to John H. McDonald's "Handbook of Biological Statistics" (3rd edition) and several reports on topics such as bioethical issues in biomedical sciences. Access to the internet, a computer with functioning webcam, microphone, and speaker (or headphones/earbuds) are required. Please refer to "UF Computing Requirements" below for additional information on this. All additional material will be provided online through Canvas.

## **COURSE FORMAT**

This class is 100% online. Pre-recorded lectures and assigned readings are organized within modules. The class is designed to be flexible to your schedule. Assignments are due throughout the semester, with at least one work week to complete each. There are two examinations (one midterm and one final) and one "research project". The research project will focus on a research problem you are interested in. This research project will comprise a research plan you will work to develop throughout the semester. This is a scaffolded assignment, meaning the larger project is broken into smaller assignments that focus on skills or types of knowledge required to successfully complete the larger assignment. It will cumulate in a poster presentation (which includes a recording < 3 minutes in duration – video and audio are required in the grading scheme for the recording).

The Canvas course will open at least 24 hours before the start of the semester, and close about one week after the last day of class.

## **COURSE LEARNING OBJECTIVES**

Upon completion of this course, students will be able to:

1. Discuss issues related to research ethics, responsible conduct of human and animal research, and data collection, as well as recognize how to avoid plagiarism.
2. Utilize effective techniques for conducting a literature search using online databases and managing references.

3. Critique research articles and determine the quality of publications, identifying issues related to methodology and guidelines to improve scientific rigor and reproducibility.
4. Identify and apply the steps involved in the scientific method by formulating a research question, building effective scientific aims, generating a research hypothesis, and designing an experimental plan (study) to address the question.
5. Generate and store data in an effective format and then select and perform appropriate statistical calculations to analyze data.
6. Interpret visual representations of data (e.g., tables, graphs).
7. Utilize scientific principles and inductive reasoning to translate and interpret results.
8. Present aspects of the scientific method, including experimental design and results, in an accurate and professional manner.
9. Outline the processes related to manuscript reviews, writing, authorship, and journal impact factors.
10. Demonstrate a clearer understanding of possible careers and how acquired skills and interests match up to a given career path.

## Course & University Policies

### ATTENDANCE POLICY

As an asynchronous online course, there is no specific attendance policy. However, the midterm exam must be completed within the designated assessment time (48 hrs, typically spanning a weekday and weekend) and assignments must be submitted by posted deadlines.

### PERSONAL CONDUCT POLICY

Students are expected to exhibit behaviors that reflect highly upon themselves and our University:

- Read and refer to the syllabus.
- Arrive to live sessions (e.g., scheduled office hours), if applicable, on time.
- Follow the guidelines for appropriate behavior in virtual environments (e.g., name visible, non-offensive background (whether virtual or not), appropriate dress during live sessions).
- Submit assignments by the deadlines. If you miss a deadline, please recognize that requesting an exception is unfair to your classmates and instructor.
- Show respect for the course instructor and classmates in engagement.
- Use professional, courteous standards for any web exchanges (e.g., proper greetings and titles in emails).
- Communicate through the preferred means (Canvas), reserving communication through official UFL email addresses for emergencies.
- UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies several behaviors that are in violation of this code and the possible sanctions.
- You are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult the instructor in this class.
- The use of software to promote academic integrity through plagiarism detection is advocated for. Although not required, Turnitin is an excellent resource for this and reference/citation assistance.

## STUDENT COMPUTING POLICY

Since this course is fully online, and per the UF student computing requirements, UF does not recommend students relying on/regularly using tablet devices, mobile phones, or Chromebook devices as their primary computer, as these may not be compatible with specific platforms used in this course or other UF courses (<https://it.ufl.edu/policies/student-computing-requirements/>). Access to a fast, secure internet network will be necessary for this course. If a student is in an area with limited internet access, UF students can access eduroam for free with their GatorLink log-in credentials. If you have any problems connecting to eduroam, you can contact the UF Computing Help Desk.

There are more than 100 Wi-Fi hotspots in Florida, including several state university campuses and community colleges. You may connect to eduroam in other states as well. You don't have to sit in a car: many locations have open spaces and communal rooms available so you can get online while socially distancing and following CDC guidelines in an air-conditioned space. In Florida, all UF/IFAS Research and Education Centers (REC) are equipped with eduroam, so if you live in a rural area of your county, you can visit an REC to securely watch course videos and take care of your academic needs.

If you have any problems connecting to eduroam you can call (352-392-HELP/4357) or email the UF Computing Help Desk.

## ASSESSMENT PROCTORING POLICY (HONORLOCK SYSTEM REQUIREMENTS)

Exams will be proctored using HonorLock. You will not need to sign-up or schedule a testing time, nor will you need to create an account. To ensure your device is compliant with HonorLock, a series of pre-assessment checks must be performed before gaining access to the exam. Please do so in advance of the exam; we are unable to further accommodate for individual technological issues that may detract from your exam time. Specifications necessary for HonorLock to work are listed below:

- You need to open Canvas on the Google Chrome internet browser and to download the HonorLock Chrome Extension. Other internet browsers will not be compatible with HonorLock. You must use a PC or Mac.
- Make sure you have a stable Internet connection wherever you are taking the exam.
- Students must install the HonorLock Extension within Chrome
- HonorLock will not support Windows 8, Windows 8.1, Mac OSX 10.11 and Mac OSX 10.12. You can find the updated Minimum System Requirements and a system compatibility test at [www.honorlock.com/support](http://www.honorlock.com/support).
- You will need to take the exam on a desktop computer or laptop with a webcam and microphone set up on your chosen device. This will not work on mobile devices or tablets, including iPads and smart phones.
- You need to make sure that the camera is always facing YOU – if the camera does not stay facing you or if you are out of frame, the exam will pause, preventing you from continuing, even midway through.
- A 360-degree scan of your testing room/environment will be required. If you are using a laptop, you will need to pick up your laptop and rotate it for the room scan, including your examination surface (e.g., desk, table), floor space, your lap, etc. The testing environment should be cleared of any clutter, no notes, or textbooks laying out. These could constitute a violation of the Honor Code (e.g., academic dishonesty).

- Cell phones, tablets, smart watches, calculators, earphones, and other external electronic devices must be removed from the vicinity of the testing space (ideally outside the room).
- Make sure the room you are taking the exam in is well-lit and that you are by yourself (private space). Rooms that are not bright enough may get flagged as “blurry” or “unclear”. Avoid posters or photographs on the wall behind you; try to minimize noise, including talking aloud. These will also flag your exam, which will be reviewed by a member of the instructor team for the course to confirm or refute any academic dishonesty.
- You must have a valid and clear photo identification (ID) card (Gator ID, driver’s license, passport) to show at the start of the exam. Make sure the image is clear.
- Only one screen - you cannot have multiple monitors - and one tab, which is that is being used for the exam) in Chrome is allowed. HonorLock has an integrity algorithm that can detect search-engine use, so do not attempt to search for answers, even if it is on a secondary device.
- An HonorLock Practice Quiz will be set up under Quizzes in Canvas. Please go through this practice test well in-advance of taking the exam. This practice quiz allows you to go through all the pre-assessment checks so you will know what to expect when taking the exam itself. Take the practice quiz on the device you intend to take the exam on, in the same environment (building, room, lighting).
- Failure to meet the items above may result in a 0 grade. If you encounter any issues with the testing platform or the exam, you should immediately contact HonorLock for assistance. If this fails, you need to email your course instructor right away with specific details (e.g., screenshots of your chat conversation with HonorLock with time stamps) of what occurred so that they can assist you as quickly as possible.

## MAKE-UP POLICY

Make-up assessments and assignments will be given at the discretion of the instructor. To request and possibly schedule a make-up quiz or exam (with valid explanation), please contact me, and provide relevant information, including documentation. Requests should be made in advance, sooner than 1-2 business days prior to the original deadline. Ideally, make-ups should be completed before the next assignment deadline.

Unexcused (including “inappropriate excuses”) material cannot be made up and will result in a zero on that item. Please do not ask for an accommodation for inappropriate excuses, which include:

- Extracurricular activities
- Out of town/vacation
- Sleeping in
- Sports
- Technological issue due to procrastinated assignment upload
- Volunteering
- Work

If you have a serious emergency or life event, please contact the Dean of Students Office ([www.dso.ufl.edu](http://www.dso.ufl.edu)) and they will contact your instructor so that you do not have to provide documentation to individual instructors for a make-up. The requirements for make-ups in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

## ACCOMMODATING STUDENTS WITH DISABILITIES

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations. Students registered with the DRC: It is strongly recommended that you submit your accommodation requests through the DRC in the first week of classes to ensure that they are approved in time.

In the case of situations that may impede learning throughout the semester, students may reach out to the Dean of Students Office to provide documentation that will then be directed to the course instructor.

## COURSE EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the e-mail they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>.

## Getting Help

### HEALTH & WELLNESS

- U Matter, We Care: If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 352-392-1575
- Sexual Assault Recovery Services (SARS) - Student Health Care Center, 392-1161
- University Police Department, 392-1111 (or 9-1-1 for emergencies) <http://www.police.ufl.edu/>

### ACADEMIC RESOURCES

- E-learning technical support, 352-392-4357 (select option on 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu). <https://lss.at.ufl.edu/help.shtml>
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>
- On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>

### INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY RESOURCES

All individuals, irrespective of their gender, gender identity, gender expression, sexual identity, sexual orientation, race, ethnicity, religious affiliation, physical or mental ability, political affiliation, or any other perceived generalized differentiator, are welcome in this course. It is expected that we treat each other with

respect and as equals. Treat one another as you want to be treated so that we can have valuable discussions in this course. Intolerant, inflammatory, or insulting behavior or speech is not acceptable and may lead to dismissal from the course. Please do reach out for assistance regarding accommodations – I do not want inaccessibility to keep anyone from the opportunity to learn and grow.

## PREFERRED NAME

It is important to the learning environment that you feel welcome and safe in this class, and that you are comfortable participating in class discussions and communicating with me on any issues related to the class. I would like to acknowledge your preferred name, and pronouns that reflect your identity. Please let me know how you would like to be addressed if your name and pronouns are not reflected by your name on the class roster. Please kindly correct me if I forget or make a mistake.

You may also change your “Display Name” in Canvas. Canvas uses the "Display Name" as set in myUFL. The Display Name is what you want people to see in the UF Directory, such as "Ally" instead of "Allison." To update your display name, go to [one.ufl.edu](http://one.ufl.edu), click on the dropdown at the top right, and select "Directory Profile." Click "Edit" on the right of the name panel, uncheck "Use my legal name" under "Display Name," update how you wish your name to be displayed, and click "Submit" at the bottom. This change may take up to 24 hours to appear in Canvas. This does not change your legal name for official UF records. Please keep your preferred name (first and last, if possible) visible when engaging in course activities online (e.g., virtual office hours).

## PRIVACY

Aspects of course content may be audio and visually recorded for students in the class to refer to. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. By enrolling in this course, you will be required to have audio and video enabled for your poster presentation and various Discussion posts. If you do not want your image in any recording pertaining to course content (e.g., Flip), please let me know within the first couple weeks of class so that we may seek an accommodation. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

## Grading

The following table outlines the point-accruing components of the course.

Evaluation Components	Allocation to Final Grade
Assignments	25%
Engagement (Flip)	10%
Exams (2)	25%
<b>Research Project</b>	
Proposal: Literature Review & Specific Aims	10%
Methodology	10%
Discussion: Translation & Application	10%
Poster Presentation	10%

**Assignments** – Assignments include discussion posts, peer evaluations, literature compilation and review, and reference management. “Participation” activities are included in this grading segment: for example, students will be asked to create a short post to introduce themselves to the class. This activity will require the use of audio and visual recording tools. To retain all participation points, students must upload their post and comment on that of a classmate by the set deadline (for this assignment).

**Engagement (Flip)** – Ten percent (10%) of your final grade is earned through activities designed to augment our online community. These activities include video posts and peer comments through Flip, a simple and free discussion experience designed for learners, and developing practice exam questions on Canvas Discussion Boards. The assignments contributing to your Engagement grade include four unique posts and comments on at least one peer’s post via Canvas > Assignments > Flip.

**Exams** – This course comprises two closed-book exams comprising multiple choice, multiple answer, matching, fill-in-the-blank, and short answer questions on course content (on lectures, readings, and assignments). Students will have access to the exams for 48 hours, each, with unlimited time. However, each exam must be completed in one sitting. Honorlock will be used for the proctoring of examinations. Examinations will span comprehension and knowledge retention but also application and interpretation of material.

**Research Project** – Each student will develop an independent research project. This project will be worked on throughout the semester with scaffolded assignments due throughout the term, separating by parts: (1) proposal, which comprises a literature review, specific aims, hypothesis, purpose; (2) methodology, which includes statistics (including sample size) and experimental protocol; (3) discussion, which comprises translation of findings and clinical application of research project. The final component of the research project is a (4) poster presentation, which will comprise creating a poster and recording a short recording (audio and visual) via VoiceThread or some other audio/video program with slide share.

The experiment designed in the research project of this course will not actually be implemented. The act of developing the research project and then analyzing and interpreting hypothetical data is the focus of research methods and methodology.

## GRADING SCALE

Any discrepancies with points displayed in the gradebook must be brought to the attention of the instructor as soon as possible, or before the last day of class. There are no re-grades or re-submissions in this course. If there is something that you believe is incorrect, a re-evaluation of the score may be made. Please recognize that doing so will result in a stricter evaluation of your submission, which may result in additional deductions.

There is **no** curve for this course and final grades will **not** be rounded up. Any requests for additional extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (e.g., asking for preferential treatment) and will be handled accordingly. More detailed information regarding current UF grading policies can be found here:  
<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.



Letter Grade	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A+*	97.00-100%	4.0
A	93.00-96.99%	4.0
A-	90.00-92.99%	3.7
B+	87.00-89.99%	3.3
B	83.00-86.99%	3.0
B-	80.00-82.99%	2.7
C+	77.00-79.99%	2.3
C	73.00-76.99%	2.0
C-	70.00-72.99%	1.7
D+	67.00-69.99%	1.3
D	60.00-66.99%	1.0
E (F)	0-59.99%	0

\*An A+ appears as an "A" with the UF Registrar

## MY LEARNING ANALYTICS

MyLA has been added to the Canvas course for this class. MyLA allows you to check your course performance and view your progress toward learning goals. Three visualizations use data from Canvas to provide a look into effective study habits and how you can manage your progress (please note there is an activity data delay of about 24 hours; see the timestamp on the display). Find out more about using MyLA on the My Learning Analytics website: <https://elearning.ufl.edu/myla/>. Please contact me with interpretation, grading, and assignment questions, or the UF Computing Help Desk for technical support: <https://helpdesk.ufl.edu>.

## Weekly Schedule

Specifics, such as content covered within each module, are available on Canvas. Additional assignments beyond those posted below have variable deadlines, although all assignments and assessments are due at 11:59 PM EST on the date marked unless otherwise noted or mentioned in Canvas via announcements (all assignments are not included in this summarized table). Please review all announcements for updates – you are required to receive Canvas announcements and respond to Canvas messages promptly. Again, the schedule below does not include all assignments – only the Research Project components and Exams are posted here.

Note that numbered modules are named after chapters in our required textbook but there are usually additional lectures and activities within these modules. Check Canvas for elaborations on these to avoid missing anything!

Please reach out in advance for accommodations, including special observances, such as holidays – I am happy to assist however I am able to.

Week	Dates	Canvas Module	Content
1	August 22 – 26, 2022	Orientation Research Project	Semester Begins Wednesday Syllabus & Introductions Research Project Introduction <i>Flip Engagement Post #1 DUE Sun, Aug 28<sup>th</sup> at 11:59 PM EST</i>

2	August 29 – September 2	Module 1 Module 2	What is Research? Research Traditions
3	September 5* – 9	Module 3 Module 4	<a href="#">Monday is Labor Day</a> The Research Process Research Questions, Aims, and Objectives
4	September 12 – 16	Module 5 Module 6 Module 7	Reviewing the Literature Theories, Concepts, and Variables Research Designs <i>Flip Engagement Post #2 DUE Sun, Sept 18<sup>th</sup> at 11:59 PM EST</i>
5	September 19 – 23	Module 8 Module 9 Module 10	Collecting Data I: The Questionnaire Survey Collecting Data II: Interviews Collecting Data III: Unobtrusive Methods
6	September 26 – 30	Module 11 Module 12	Collecting Data IV: Ethnographic Research Sports Research and the Internet
7*	October 3 – 7*	Exam	<i>Midterm Exam: Wed, Oct 5<sup>th</sup> 11:59 PM EST – Fri, Oct 7<sup>th</sup> 11:59 PM EST</i> <a href="#">Friday is Homecoming</a> <i>Research Project Proposal DUE Sun, Oct 9<sup>th</sup> at 11:59 PM EST</i>
8	October 10 – 14	Module 13	Analyzing Data I: Quantitative Data <i>Flip Engagement Post #3 DUE Sun, Oct 16<sup>th</sup> at 11:59 PM EST</i>
9	October 17 – 21	Module 14	Analyzing Data II: Qualitative Data
10	October 24 – 28	Module 15 Module 16	Writing the Research Report Practical Issues
11	October 31 – November 4	Research Project	<i>Research Project Methods DUE Sun, Nov 6<sup>th</sup> at 11:59 PM EST</i>
12	November 7 – 11*	Applying Research Methods	Marketing Yourself <a href="#">Friday is Veteran's Day</a> <i>Flip Engagement Post #4 DUE Sun, Nov 13<sup>th</sup> at 11:59 PM EST</i>
13	November 14 – 18	Research Project	<i>Research Project Discussion DUE Sun, Nov 20<sup>th</sup> at 11:59 PM EST</i>
14	November 21 – 25*	Research Project	<a href="#">Thanksgiving Wednesday – Friday</a> <i>Research Project Poster DUE Sun, Nov 27<sup>th</sup> at 11:59 PM EST</i>
15	November 28 – December 2	Research Project	Presentation Showcase

16	December 5 - 9	Exam	Thursday and Friday are Reading Days
17	December 12 - 16	Exam	Final Exam Week FINAL EXAM: Mon, Dec 12 <sup>th</sup> 11:59 PM EST – Wed, Dec 14 <sup>th</sup> 11:59 PM EST

## SUCCESS AND STUDY TIPS

Recognizing that people learn in different ways and with no judgement on how they study (e.g., highlighting text, using YouTube, drawing figures), here are some tips for success and studying in this course that haven't been proven useful for many:

- This course is designed so that if you ethically do the assignments, work hard at your research project, and complete all the lectures, you should earn a good grade.
- Concentrate on the material and get as much as you can out of material to prepare yourself for a professional life rather than becoming anxious about a high grade. This is a skills-acquisition class; not a “weed out” class. Again, most students who do what is asked of them do very well.
- Look up material that inspires you. If you come across something that connects to class content, share as a Discussion on Canvas. We're lucky to have so many resources through the internet.
- Check Canvas for announcements! Adjustments to the schedule and edits/clarifications to topics discussed in class will be posted there.
- Things happen; that's life. If there are some majorly overwhelming things happening during your semester, send me a message and even schedule a live virtual meeting with me. We'll work together to figure out what steps we should take in hopes of wrapping up successfully wrapping up the course. Swing by and chat academia (grad school!?), sports, and aspirations to travel the world some time – I've met some fantastic folks in this class, each with their own stories of success and challenge that have been quite inspiring to hear.

*“Every student can learn, just not on the same day, or the same way.” –George Evans*