

Article for NEVMATYC, Fall 2018
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How Students Succeed: From the Student Voice

I recently taught a fast-paced summer course and was surprised at the student success rate. I don't mean to sound skeptical, however a course normally taught over 15 weeks was jammed into a 5-week summer course. Even so, most of the approximately 30 students that stayed with the course, passed with a C or higher.

The course was Stat 152, a one semester introductory course in statistics. As for the content, students performed most of the calculations on those wonderful TI 83/84 calculators. That left a lot of the course to the conceptual understanding of concepts, interpretation of statistical results and understanding the vocabulary of the world of statistics.

So I asked the students what they did to be successful in this fast-paced statistics course. I would like to share their thoughts with you.

I have shared these same writings with my current students. I hope they take these fantastic pieces of advice from their fellow students.

My email to the A and B students:

“Hello,

I want to congratulate you on your excellent job in Stat 152 summer 2018 class. I wonder if you would let me know what behaviors you did that made you so successful in this course? I would like to pass your advice on achievement to other Stat students.

Feel free to email me with what you did to be very successful in this course. I am also interested in your feedback on this online course.

Sincerely,

Dr. Gail Small”

And here are some of the student responses:

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Hello Professor Small,

Thank you very much! I am so relieved and extremely happy to see that I received an A in statistics 152! I feel that I overcame and accomplished this class. This was a very challenging course due to the summer condensed session, as well as the amount of work required. I spent almost 90 hours on this course in the 5 weeks. I feel that completing all of the homework (until all attempts are 100%), quizzes and reviewing the homework before the final is what helped me become successful. I did watch you-tube videos on how to work my calculator when it seemed I did not have enough resources, and I also attended tutoring when absolutely necessary. I do feel that there is a lot of work required for this course in such a short time; however, it did seem that the work was all beneficial for successfully completing the final exam. Also, I am living proof that even while taking other classes, and working a full time job, an A in this class is extremely challenging, yet possible.

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Hi Professor Small,

Thank you for your email, it was a very nice to receive and be recognized for the work I put into the Stat 152 course.

I would say the most vital part to success in this course and other courses I have taken since returning back to school and making sense of the material by understanding how it is used in real life, and not just memorizing formulas. For me, having those connection makes the material more interesting and easier to understand.

However, the biggest part for me with this course was understanding how to use my calculator (Ti-83+) for the material in this course. I watched lots of videos and referred to the technology section of each chapter to make sure I knew how to use calculator, because I knew that was going to be my main weapon on the final.

My general approach to the course was to read each chapter, not skim over but actually read and try and make sense of the book. Being an online course, there

was not a personal interaction with a professor that is an expert in the field to make sense and give real life examples for concepts in class. So reading the book became a crucial part of not only doing well on the homework and quizzes, but being able to understand why I was learning what I was learning. Beyond reading the book, I would look up videos online if I could not completely grasp the concept. My wife also was a big help since she has a masters in economics and stats is kind of her thing!

Understanding the homework assignments was very important to my success as well. Making notes on each step of each problem really helped me on quizzes and studying for the final. I found with this course that a problem would seem fairly easy to approach when the material was fresh, but going back to problems that I had not reviewed for a little bit was hard to remember exactly how to attack the problems. So having a step-by-step guide was nice to help me study and reinforce concepts.

I also would go back through each chapter after taking the chapter quiz and create an outline for the entire chapter just to help me review and hopefully have the course material stick in my head.

For the final, I went over each review homework and created an outline for each of those assignments. After creating the outline and reviewing the review problems a few times each, I created my formula sheet based off of those outlines. It was really going over the review problems and homework assignments a couple times so each problem seemed relatively fresh in my mind for the final.

Hope that helps, and thank you for a fun course!

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Dr. Gail Small

I have never gotten an email like this from an online instructor, and I know you are doing it for feedback- but I just want you to know that it really means so much to me to have my effort acknowledged by you! Thank you!

I am about to start my second semester of nursing school at TMCC. I took Stats online in summer school in anticipation of enrolling at Boise State University after I complete the nursing program. It is a transferable towards my BSN. I owe my success to reading the chapter using the etext and taking notes before starting the assignments. I also used Statshowto.com to learn the

ti83. I would say I definitely worked in this class many more than 10 hours a week- whether researching on you tube how to enter into the ti83 or just reading the etext. I also know that if I would have given myself another day or two to prepare for the final I could have figured out the 4 questions I felt stumped on. I have had to 'let this go' and am happy with my grade! I worked hard for this. Math has never been a strong subject for me- so if I can basically teach myself Stats and how to use a ti83 online at my kitchen table in 5 weeks and earn a solid B- others can too! Thanks again, this class was great.

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Good evening,

This course was tough for me because a lot of the concepts were abstract and math is a difficult subject for me overall! What I did to prepare myself for the weekly quizzes and homework was that I read the whole chapter and made notes of the concepts that I found to be important to that chapter. After that, I practiced all of the odd numbered problems that are found at the end of the chapter and checked my answers in the back of the book. I kept this routine throughout the course.

I thought this course was scheduled at a pace that was challenging but was not impossible to do. I enjoyed that you kept the class updated for the final along with making the option of tutoring available. However, I would have felt a little more prepared having a study guide specific to the final because there were many formulas to keep track of. Stat 152 was a definite challenge but I enjoyed learning some of the concepts I was presented with in the text and the structure of the class.

Thank you

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Dr. Small,

Thank you so much for the email. It was quite a surprise and very much appreciated. I am more than happy to share all that I did for this class.

I rented the textbook and read through each chapter and took notes. I found my notes from the chapter weren't always effective and at times more in depth information than I needed to remember for the homework. While doing the homework, I used the "show me an example" button with all the problems I

didn't know how to complete. I additionally wrote down these problems so I could review them later to be prepared for the quiz.

I began using StatCrunch for homework problems, but when I realized I couldn't use it on the final and even quizzes, I started using my calculator. Since I have a casio calculator, I had to use youtube quite a numbers of times to figure out how to complete problems using my specific calculator. For the final, I reviewed all the homework reviews and wrote down any problems I really didn't remember or wanted to spend more time looking at during later review sessions. I also wrote down calculator procedures I had forgotten so I could retain them.

This was my first online class. I had used mymath lab previously so was already comfortable completing homework and quizzes online. As mentioned previously, I made use of the examples of problems that were provided on mystat lab. My only frustration with the examples provided in mystat lab was the lack of completion of a problem when it simply stated to "use technology". Using the book and online program was ample information to complete the course except for help with calculator use since I own a casio. I had found a page online at one point (in mystat lab?) that provided videos on calculator use. Later on, I couldn't remember where I had found this page so found it easier to use youtube. Although it took time finding exactly what I needed, for the most part (I think only one time I couldn't find what I needed), youtube provided the information I was looking for.

I am self motivated and performance driven. Additionally, this was the last prerequisite I needed to start grad school. All of these factors as well as the hours and hard work I put into this class, I believe contributed to my success.

Thank you so much for asking and please let me know if you have any additional questions. I would be happy to answer them.

In closing, I will say that Stat 152 is a less demanding course than the algebra-based courses, and that certainly helped with the student success. However, I know other of my students do not apply these rigorous study techniques, and it shows. Feel free to pass these study tips onto your students as well!