

My best teachers
were not the ones
who knew all the
answers, but
those who were
deeply excited by
questions they
couldn't answer.

—Brian Greene





INTRODUCTION

Intro...

- **Chikezie O. Madu, Ph.D.**

EDUCATION

- Ph.D. Biomedical Sciences (Cancer Research)
- M.Ed. Education (Curriculum and Instruction)
- B.S Biochemistry (Protein Chemistry)

EXPERIENCE

- 26 years in combined teaching and research

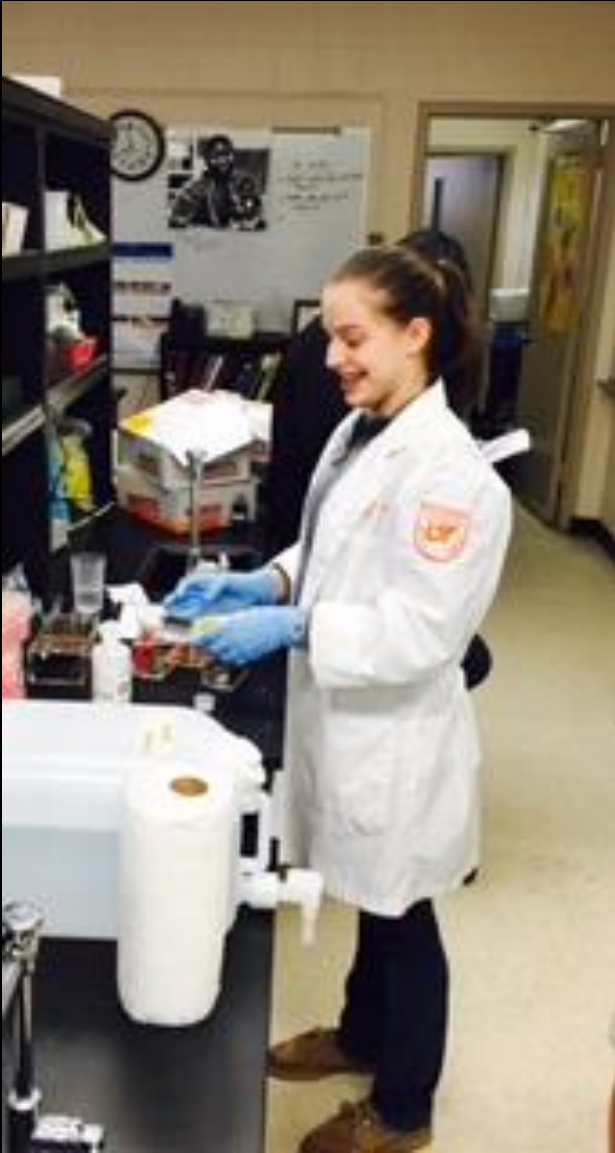
The background of the image shows the silhouettes of a group of graduates. They are holding up their black graduation caps and white diplomas against a clear, light blue sky. The scene is captured from a low angle, looking up at the graduates, creating a sense of achievement and celebration.

What AP Biology offers

-by former AP Bio Students



1. **PREPARATION FOR COLLEGE**



PREPARATION FOR COLLEGE

- Equivalent of a two-semester college biology course.
- Two classes in one (two grades)
- AP Biology exam in May and may earn a college credit if they pass the exam with a 4 or 5.
- Builds critical thinking skills, confidence, and the essential time-management and study skills needed for college success





PREPARATION FOR COLLEGE

TtGG™




Teaching the Genome Generation

...a new way to teach genetics and genomics through the lens of personalized medicine.

a collaboration between:

 **The Jackson Laboratory** and  **WHITE STATION**
Excellence For All

Funded by

 **LeBonheur Children's Hospital**  **THE ASSISI FOUNDATION OF MEMPHIS, INC.** &  **SEPA** SCIENCE EDUCATION PARTNERSHIP AWARD
Supported by the National Institutes of Health

 The Jackson Laboratory

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TEACHING THE GENOME GENERATION

Teaching the Genome Generation™ is a platform for individual teachers and schools to enhance their genetics instruction through partnership with JAX Genomic Education and The Jackson Laboratory.



THE OPPORTUNITY FOR ADVANCED TRAINING

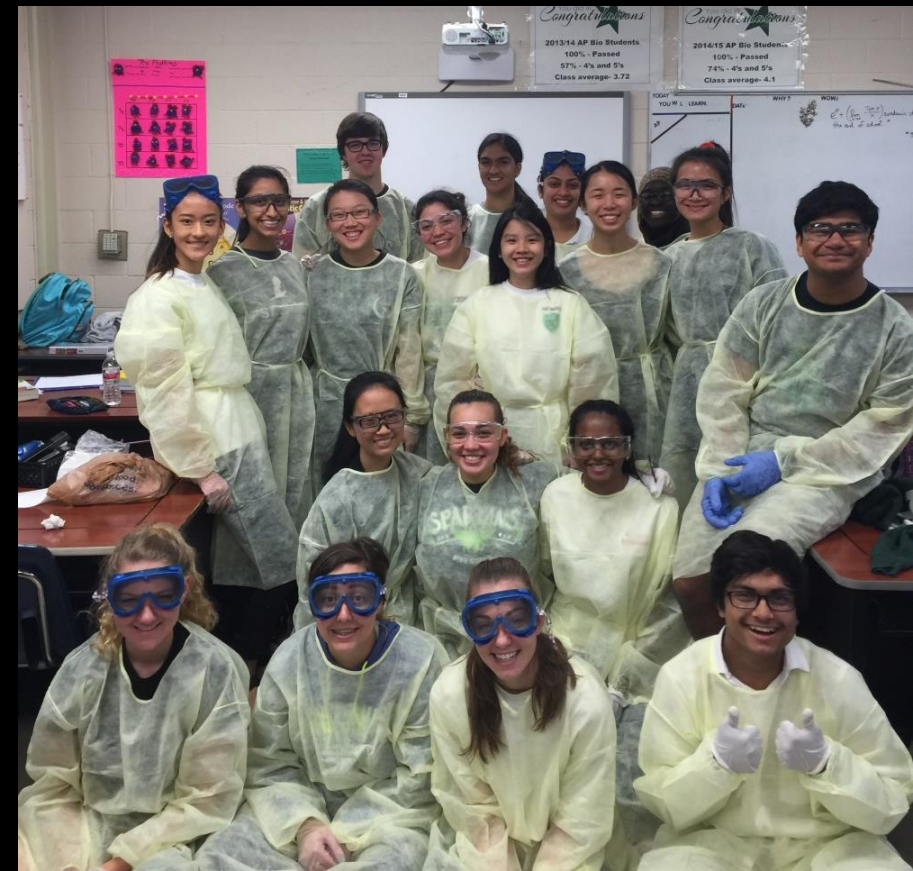


2.

**HELP TO GET INTO
A GREAT COLLEGE**

HELP TO GET INTO A GREAT COLLEGE

- 85% of selective colleges report that a student's AP Bio experience favorably impacts admission decisions into college and medical school
- Highly recommended by several professors at medical school that are involved in the admission process



HELP TO GET INTO A GREAT COLLEGE!"

- Publish a review paper

Anti-VEGF Therapy in Cancer: A Double-Edged Sword
Chapter 1
Victor Gardner, Chikezie O. Madu and Yi Lu
Additional information is available at the end of the chapter
<http://dx.doi.org/10.5772/66763>

Abstract
Vascular endothelial growth factor (VEGF) is a mitogen that plays a crucial role in angiogenesis and lymphangiogenesis. It is involved in tumor survival through inducing tumor angiogenesis and by increasing chemoresistance through autocrine signaling. Because

OncoMedicine
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OncoMedicine 2017; 2:52-60. doi:10.7150/oncm.19262

Immunological Role of Vitamin D in Skin Diseases and Carcinoma
Kelley Yuan¹, Chikezie O. Madu^{2,3}, Yi Lu^{3*}
1. Department of Biology and Advanced Placement Biology, White Station High School, Memphis, Tennessee 38117. USA.
2. Department of Biology and Advanced Placement Biology, White Station High School, Memphis, Tennessee 38117. USA.
3. Department of Pathology and Laboratory Medicine, University of Tennessee Health Science Center, Memphis, TN 38163, USA.

The Role of Melatonin in Cancer Development
Sarah Liu¹, Chikezie O. Madu², Yi Lu³
1 Departments of Biology and Advanced Placement Biology, White Station High School, Memphis, Tennessee 38117. USA. sb108vg@gmail.com
2 Departments of Biology and Advanced Placement Biology, White Station High School, Memphis, Tennessee 38117. USA. maduco@scsk12.org
3 Department of Pathology and Laboratory Medicine, University of Tennessee Health Science Center, Memphis, TN 38163. USA. yilu@uthsc.edu

BRCA 1/2 Tumors and Gene Expression Therapy for Breast Cancer Development and Metastasis
Anup P. Challa¹, Chikezie O. Madu¹, Yi Lu²
1. Department of Biology and Advanced Placement Biology, White Station High School, Memphis, Tennessee 38117. USA;
2. Department of Pathology and Laboratory Medicine, University of Tennessee Health Science Center, Memphis, TN 38163, USA.
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ne 2017; 2:132-137. doi:10.7150/oncm.20393

Special issues
Journal of Cancer
Theranostics

PDF
Twitter Facebook LinkedIn Google+

HELP TO GET INTO A GREAT COLLEGE!”

- Review your college essay, resume, and application process.
- Grant writing
- Community service





**3.
PASS THE AP EXAM!**

PASS THE AP EXAM!

- 2013/14
 - 100% pass
 - 57% 4s or 5s
 - average class score-3.7
- 2014/15
 - 100% pass
 - 75% 4s or 5s
 - average class score-4.2
- 2015/16
 - 97% pass
 - 75% 4s or 5s
 - average class score-4.0
- 2016/17
 - 100% pass
 - 84% 4s or 5s
 - average class score-4.3
- 2017/18
 - 100% pass
 - 90% 4s or 5s
 - average class score-4.2
- 2018/19
 - 100% pass
 - 86% 4s or 5s
 - average class score-4.2

4.
LOTS OF
LEARNING & FUN

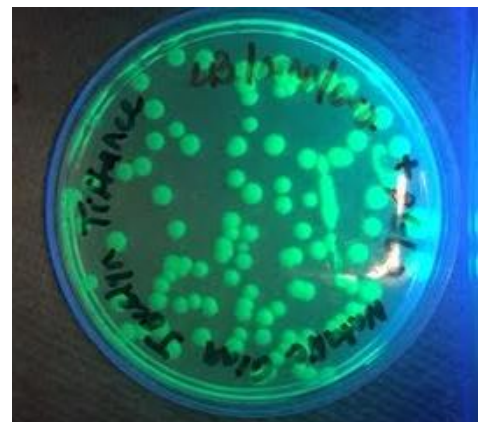


LOTS OF LEARNING & FUN

- **Explain intricate and complicated molecular biology and structural biology concept in an easy fun way**

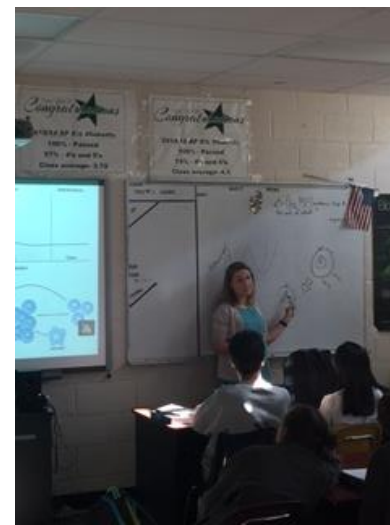
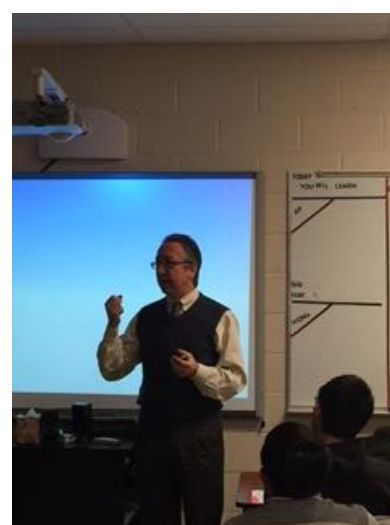
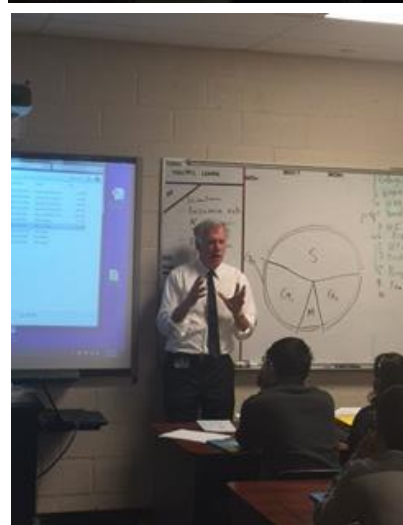
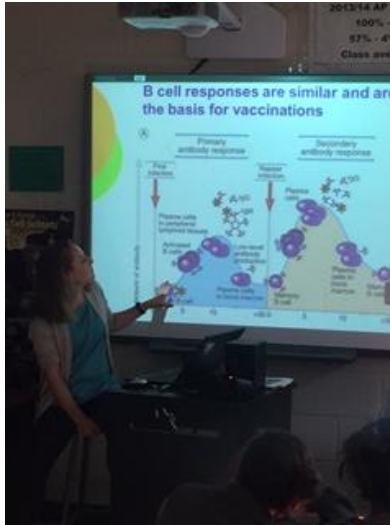
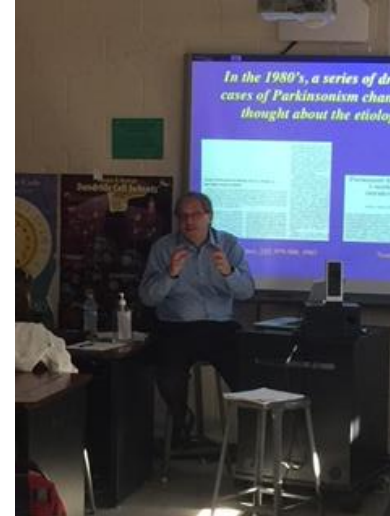
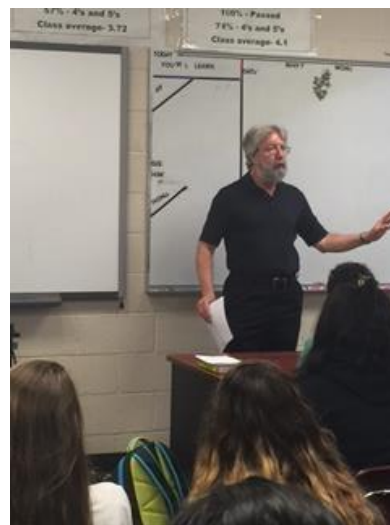
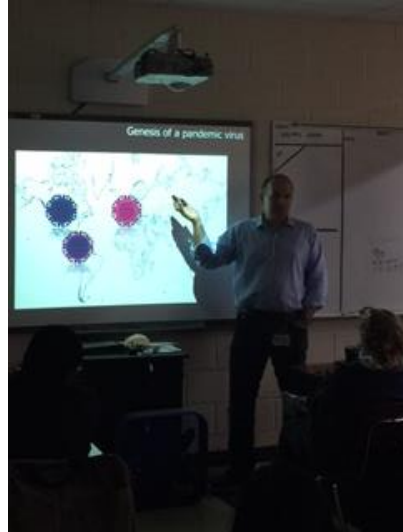
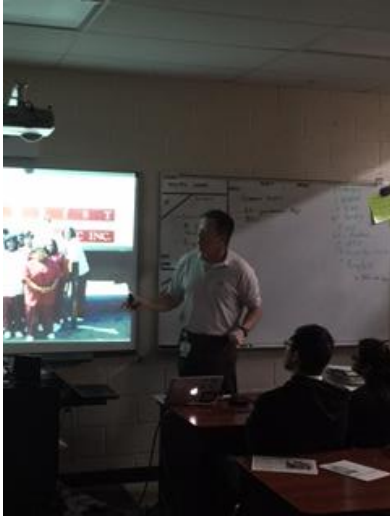
LOTS OF LEARNING & FUN

- ~65 awesome labs!!!
- Design Molecular Biology Experiment
- Interpret Review & Research Papers.



LOTS OF LEARNING & FUN

❖ Seminars-Faculty from UT and St Jude.





“IT IS A VERY FUN CLASS!!!!”

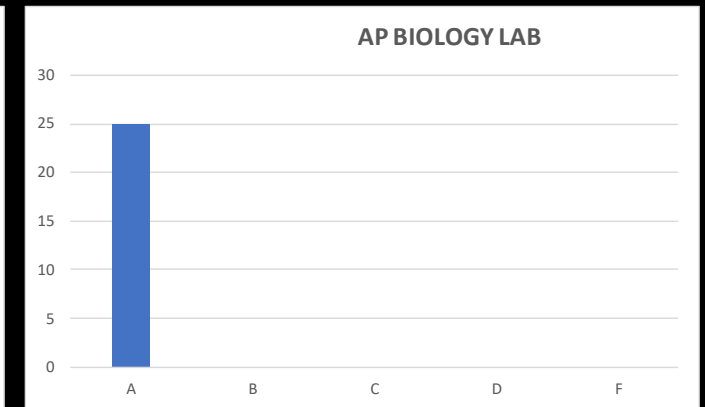
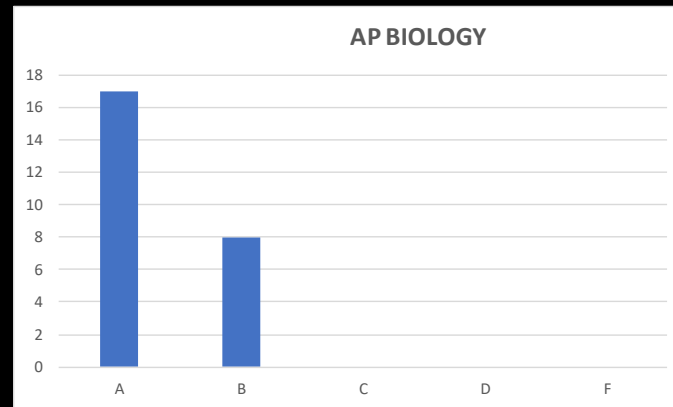
- **Informal teaching environment.**
- **We often have snacks during class.**
- **We go out for picnics**
- **We go to the zoo.**





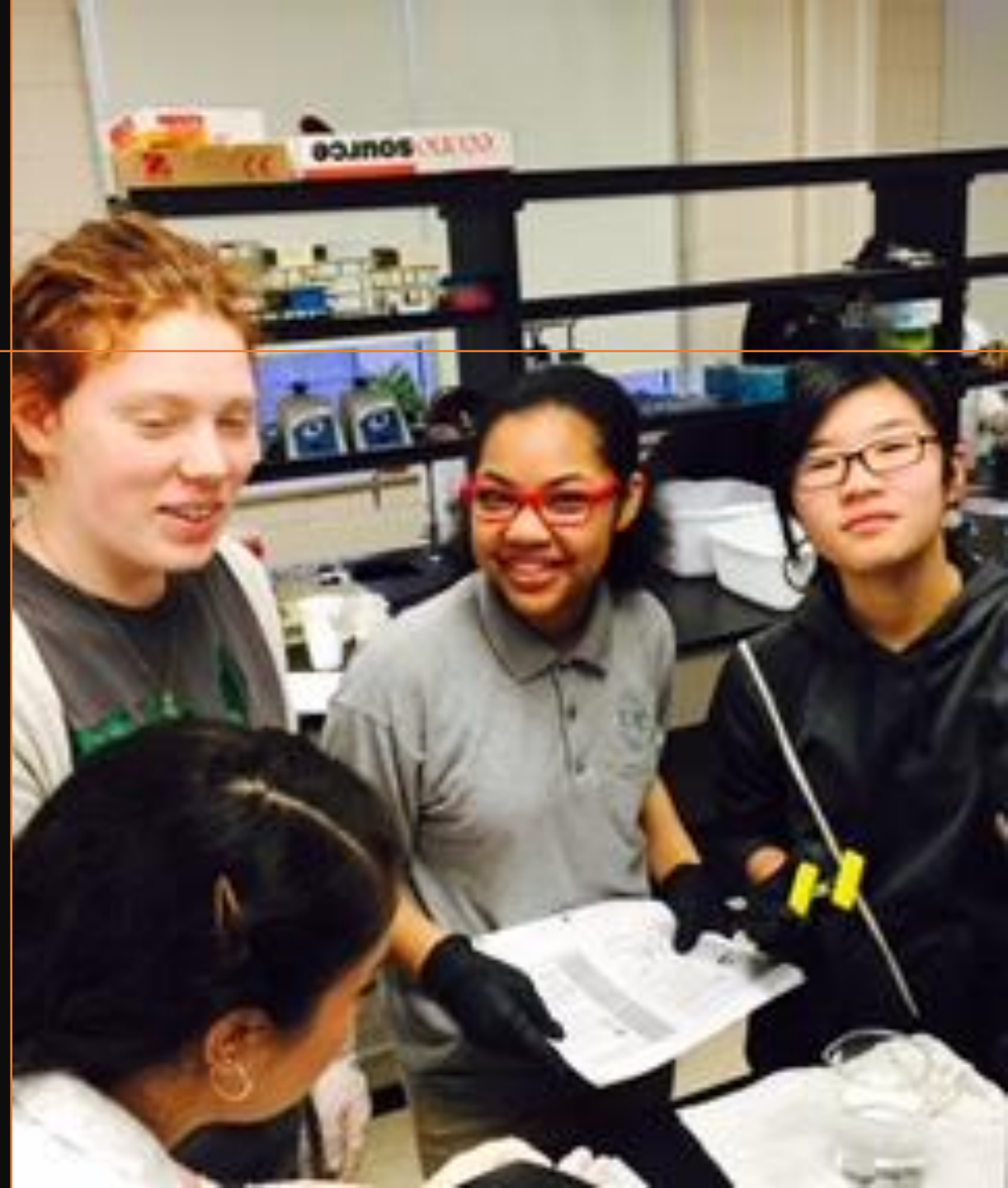
5.
**EARN A GREAT
GRADE**

NOBODY
FAILS



YOU WILL NOT FAIL!

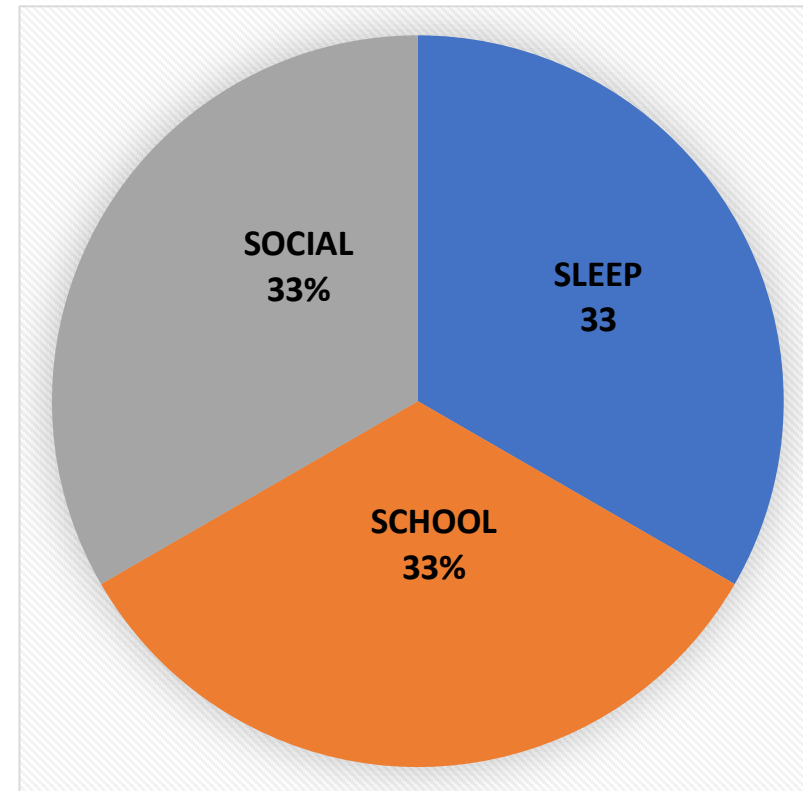
- We understand that you have
 - Other classes
 - Extra curricular activities
 - College applications
 - Social and family obligations
 - Different learning curves
 - Multiple girl friends (?)
 - etc.
- HOMEWORK
 - ~once a week
- DEADLINES
 - Decided by students
 - Spread out
- QUIZZES/ TEST
 - Multiple opportunities to make bonus points
- TEACHING
 - Various learning styles



**5 Reasons why students
struggle**
-by former AP Bio Students

“5 Reasons why I struggled in AP Biology”

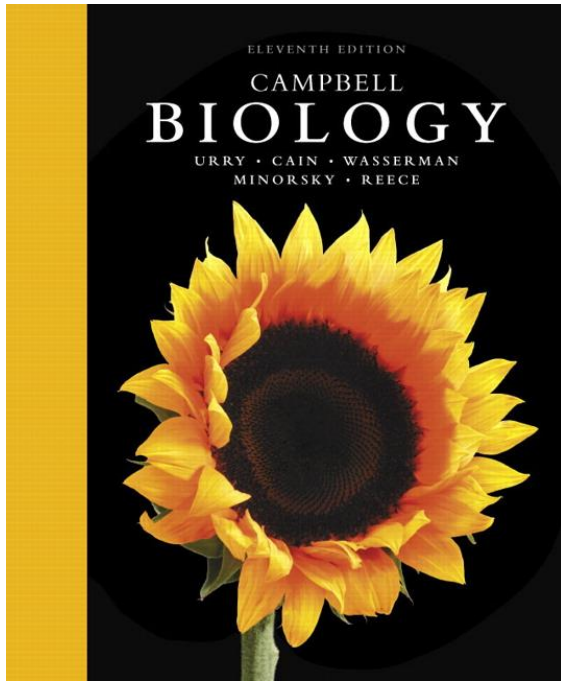
1. Procrastination or Laziness aka seniorities
2. Too many Extra curricular activities
3. Too many AP Classes
4. Learning curve
5. Wrong Goal/motive-took class just for AP credit



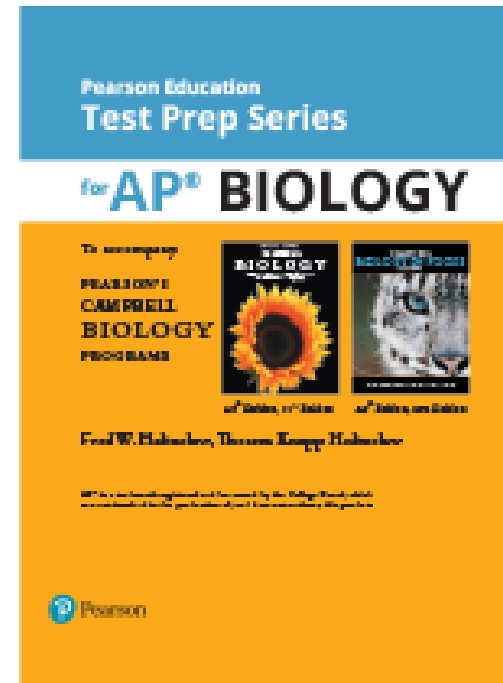
6 Things Required to get into AP Biology

- A or B in Biology
- A or B in Chemistry
- Instructors' approval
- Two teachers' recommendation
- For Juniors or Seniors.....
- Motivation and Passion!!!
-we make an exception for few sophomores who are willing and capability (ACT Science score)

Class Requirements

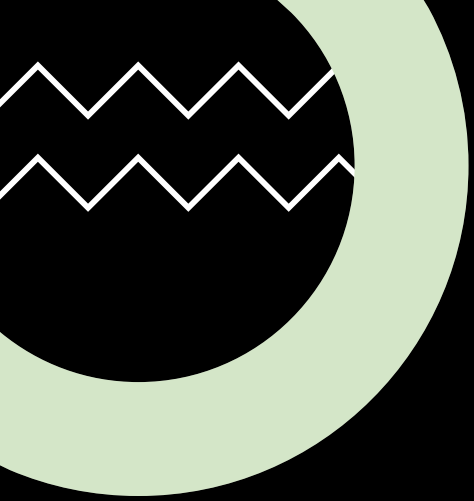


~\$105



~\$18

School provides for all students



THE REAL
QUESTION IS..

- ..WHAT REALLY
DO YOU WANT
FROM A CLASS?





Contact

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- (901) 416-8880 ext 85171. Work

