

Retaking the MCAT

Today's Info Session

- ▶ Welcome to this Info Session!
- ▶ Introduction
- ▶ Retaking the MCAT
- ▶ How to diagnose and treat weak areas
- ▶ How Can Next Step Help?
 - ▶ (Coupon codes for the course & free 2 hour tutoring session)
- ▶ Questions?

Next
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TEST PREP

MCAT
Medical College
Admission Test

WHAT IS YOUR NEXT STEP?

Introduction

Hi, I'm Phil!

- ▶ **MCAT Content writer**
 - ▶ **Tutored and taught for 9+ years**
 - ▶ **Attended University of Nebraska Medical Center as an MD/PhD student.**
- ✓ **Next Step is a team of test prep and educational experts committed to excellence.**



Who Is Next Step?

Next
Step
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- Began in 2009 as a tutoring company
- Focus on graduate admissions tests only
- Team of educational experts
- First company to have materials built from ground up for 2015 MCAT format
- Now the first company to have new 2018 MCAT Interface

✓ **We never stop improving our materials!**



Retaking the MCAT

Not as big a deal as it may seem.

Every year, thousands of students are blindsided by the MCAT, and it doesn't mean anything about their intelligence levels.

Difficulty

The MCAT is the hardest test most people have taken at this point of their life. It has to be difficult, because the competition is skilled.

Retaking the MCAT

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Prep intelligently

I've worked with hundreds of students and my advice for them is very divergent. You need to work on YOUR weak areas.

Diagnose & Treat

The first step in moving forward is figuring out your weak areas.

Diagnosing

Not just “I need to work on Physics”

Need to read between the lines

There can be several reasons to miss a question

- A student recently came to me and reported that they bombed Physics on their test.

Tale of two students

Chem Phys	123
CARS	128
Bio	122
Psych	126
Chem Phys	123
CARS	128
Bio	125
Psych	126

Chem/Phys

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1. Content

Need to know what a fluid is

2. Calculations

Math errors

Know what equations to use

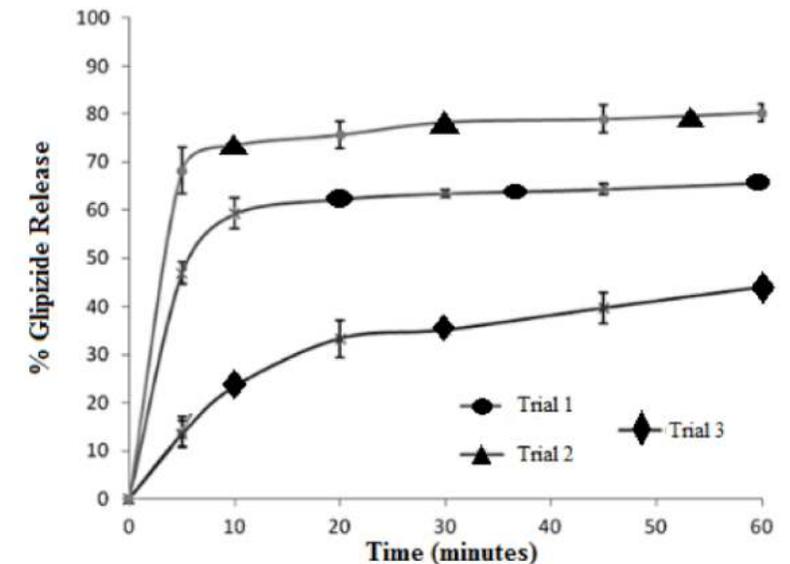
Know *when* to use what equation

3. Data interpretation

Lots of diagrams, tables of values ,

Takes practice

		Drug to Polymer Ratio		
Drug	Bulk Density	Trial 1	Trial 2	Trial 3
Glipizide	0.2 g/mL	1:1	1:4	1:8
FDDS Polymer		gelucire	β -cyclodextrin	Polaxemer-188
gelucire	0.6 g/mL			
β -cyclodextrin	0.3 g/mL			
Polaxemer 188	0.1 g/mL			



1. Content

Need to know what ADH is

2. Jargon

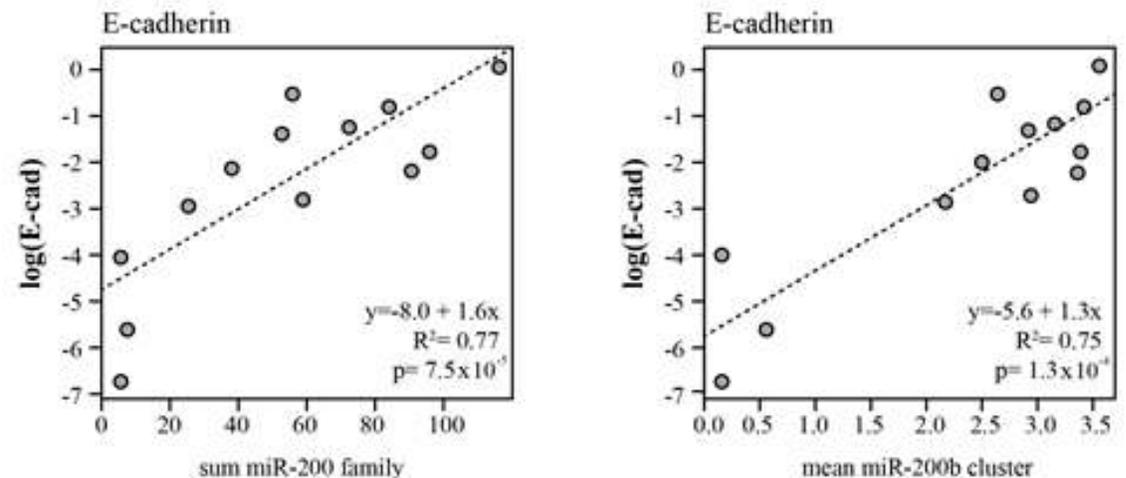
Particularly rough in Bio

3. Data interpretation

More graphs & stats

Need to be comfortable with experiments

“Studies have demonstrated that the miR-200 family inhibits EMT by negatively regulating the transcription factors ZEB1 and ZEB2. Studies have also shown that the tumor suppressor protein E-cadherin regulates EMT through its role in cell adhesion and maintenance of cell polarity. Experiments were conducted to assess whether miR-200 family expression correlates with the epithelial phenotype in PDAC cell lines...”



Psych/Soc

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1. Content

Heavy vocab

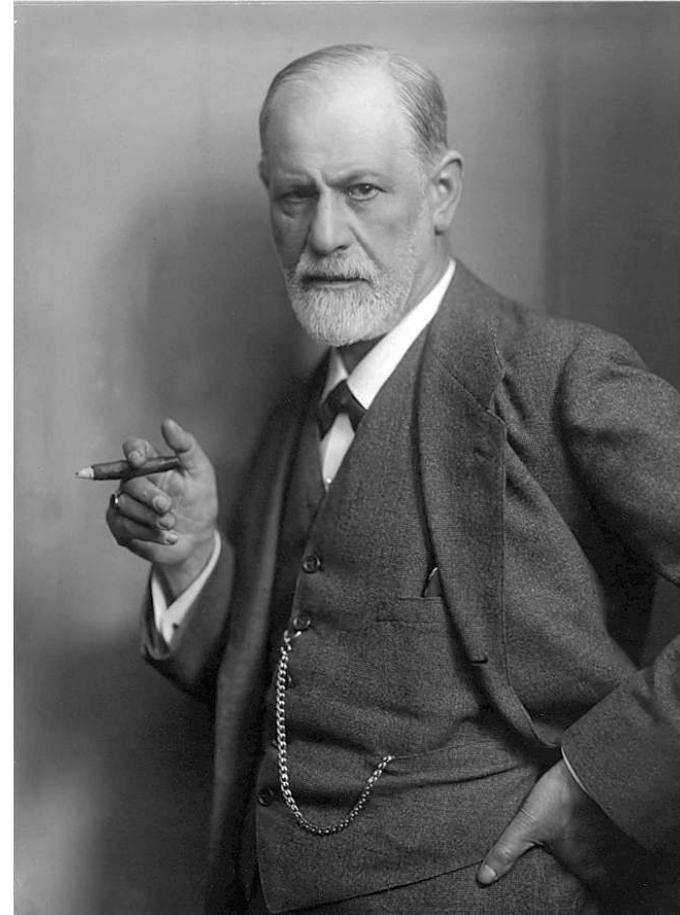
- ▶ schizoid personality disorder
- ▶ schizotypal personality disorder
- ▶ schizophreniform disorder
- ▶ schizophrenia

2. Experimental design

Ethics, variables, biases

3. Fatigue

...burnout...



CARS

CARS is an ENTIRELY different Beast.

Test of skill rather than knowledge, and there is only 4 reasons to miss a question!

- 1. Timing**
- 2. Passage**
- 3. Question**
- 4. Answers**

CARS

Passage difficulty

Olav Hammer's scathing critique of anthroposophy centers primarily on his assertion that anthroposophy is not science, but scientism - the inappropriate application of the methods of empirical science to all areas of life and the assertion that the only true knowledge or facts that can be discovered are those revealed through typical scientific methods. Both in subsuming the natural sciences under the umbrella of spiritual "science" and in its unjustifiable defense of fringe sciences such as biodynamic agriculture, anthroposophy places itself firmly in the realm of the delusional, holds Hammer.

Patterns in passages you do poorly on. (economics...)

CARS

Question types.

18. Those who defend anthroposophy rely on each of the following EXCEPT:

- A. Reasoning by analogy based on other worldviews
- B. A demonstration of apparent hypocrisy by critics
- C. A proof that scientism is irrelevant to the good works done based on a view
- D. A utilitarian argument about positive outcomes

19. Had Steiner's writings never addressed the concept of evolution, which one of the following would likely have occurred?

- A. Organic farming would never have been developed.
- B. Anthroposophy would have received less criticism from some scientists and philosophers.
- C. Anthroposophy would have developed a view of humanity as consisting of three components instead of four.
- D. Biodynamic agriculture would have developed along different lines.

CARS

Wrong answer types

1. Out of scope

Tempting for problem solvers or when you know about the topic

2. Opposite

Usually means you misread the question or the passage

3. Distortion

Close to the answer, but a little off. (often extreme)

4. Incorrect use of a passage idea (True but wrong)

Particularly problematic for people that like to cross off answers.

Tackling content

Chemical and Physical Foundations

30% general chemistry

25% physics

25% biochemistry

15% organic chemistry

5% biology

Bio and Biochemical Foundations

65% biology

25% biochemistry

5% organic chemistry

5% general chemistry

Psychological and Sociological Foundations

65% psychology

30% sociology

5% biology

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“High-Yield”

Warning: anything on the AAMC MCAT outline is fair game!

However, some topics are more likely to appear than others...

Topic	Number of questions
Biology	45
Biochem	30
Physics	15
Gen Chem	20
Organic Chem	11
Psychology	38
Sociology	18
CARS	53
Total	230

Takeaways:

Biology and biochemistry are about 1/3 of the test!

You have more psychology questions than physics and chemistry combined.

Organic chemistry is about 5% of your questions.

Things to think about

- **Content**

LOTS of stuff you need to know

- **Strategy**

Strategy is important in every area, but ESPECIALLY in CARS.

- **Timing / endurance**

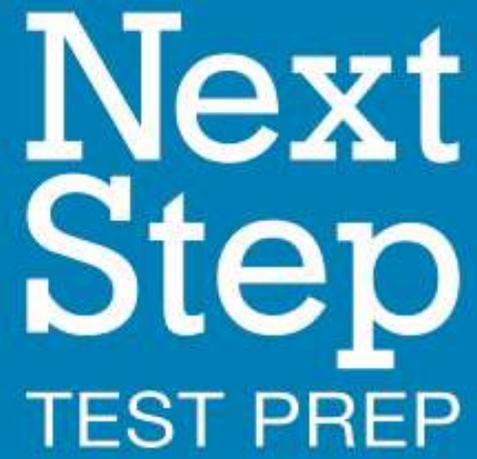
Many students are exhausted by the time they get to the Psych section.

How many FLs should you take?

- **MYTH:** The more practice FLs you take, the better.
- In reality – thorough review is most important!
- # of FLs should vary based on prep timeline, endurance, etc.
 - “Typical” student: takes 7-8 FLs
 - If you have endurance of timing problems: take more
 - If you’re confident/crunched for time: 4-5 may be enough!
- Remaining FLs can be taken as separate sections

Finally : remember breaks!

- Breaks are absolutely essential to staying at your best throughout your prep.
- How should a break be spent?
 - ▶ Exercising; keeping a normal routine
 - ▶ Catching up with other obligations (and even having fun)
 - ▶ NOT thinking about the MCAT!
- For longer prep plans, set aside 1 day for a break per week
- For shorter timelines, set aside 1 half-day per week

The logo for Next Step Test Prep is centered in a blue square. The words "Next" and "Step" are stacked vertically in a large, white, sans-serif font. Below them, the words "TEST PREP" are written in a smaller, white, all-caps, sans-serif font. The background of the slide is dark blue with a repeating pattern of small white plus signs. A white inverted triangle shape is positioned at the bottom of the slide, pointing upwards towards the logo.

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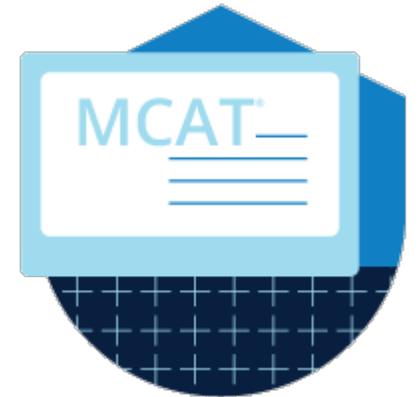
Q&A

Personalized Options

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✓ No matter your study style, subject expertise, or MCAT goal, Next Step has an option for your personal needs and lifestyle.

- **Self-Prep Materials and Planning**
- **Guided Online Study with Free Extra Help**
- **One-on-One Tutoring**



Next Step: Educate Every Da

✓ Start your prep with high-value FREE practice to build a study plan suited to your goals, needs, and schedule.

Industry's Best Free MCAT Practice Bundle

- Half-length MCAT diagnostic
- Full-length MCAT exam
- 500+ Question Science Content Diag exam
- Test Review Videos
- Multiple QBank Samples
- 16 Test & 4 Content Review Videos
- Proprietary Study Plan Generator
- Aligned to new MCAT 2018 Interface

Get your
**FREE MCAT Practice
Bundle**

<https://nextstestprep.com/>

Additional Free Resources

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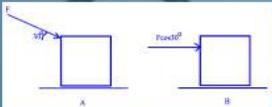
✓ Supplement your prep with additional support tools

- Question of the Day Quick Prep
- YouTube, Facebook and Instagram Content
- Ongoing Public Webinars and Q&A Sessions
- MCAT Blog: Content and Admissions
- Next Step MCAT Forum

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Question of the Day

Two people push a box along a frictional surface. One pushes the box at an angle of 30° to horizontal with force F while the other pushes the box horizontally with force $F\cos 30^\circ$. Which person does the most work?

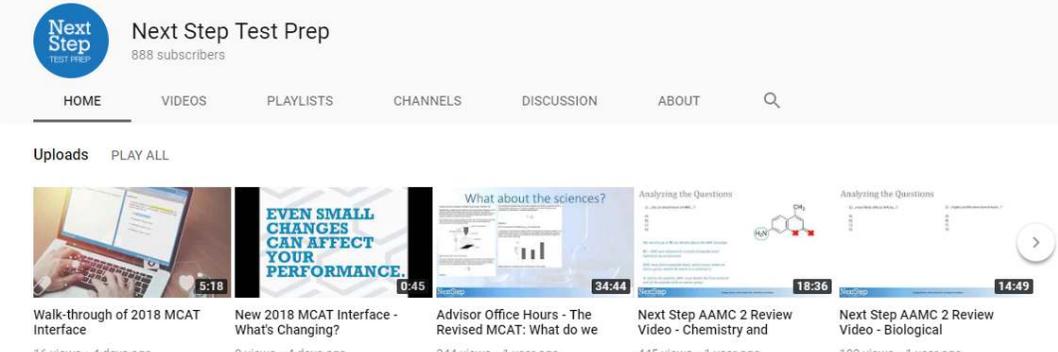


A) Person A
B) Person B
C) Person A and B do equal amounts of work
D) cannot be determined

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Walk-through of 2018 MCAT Interface
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NEW 2018 MCAT Interface - What's Changing?
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Advisor Office Hours - The Revised MCAT: What do we
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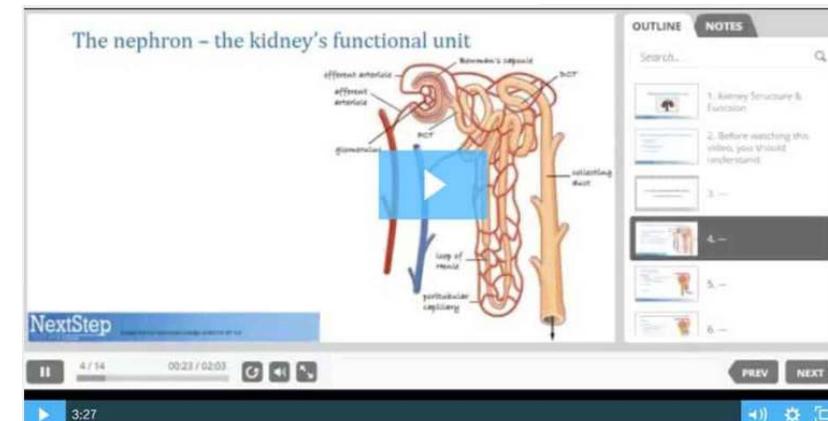
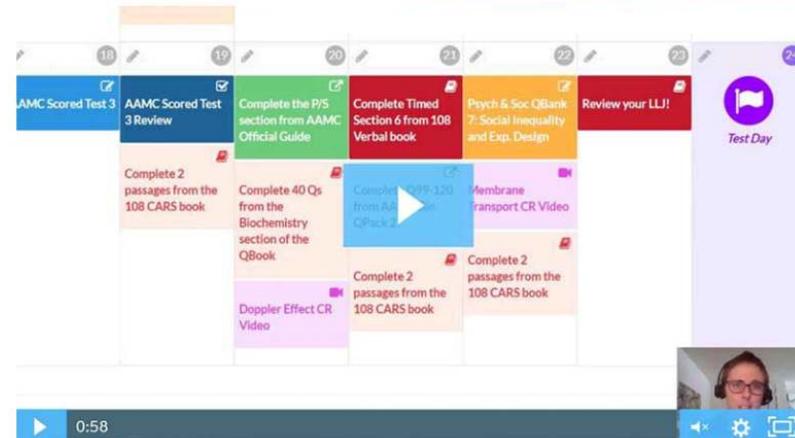
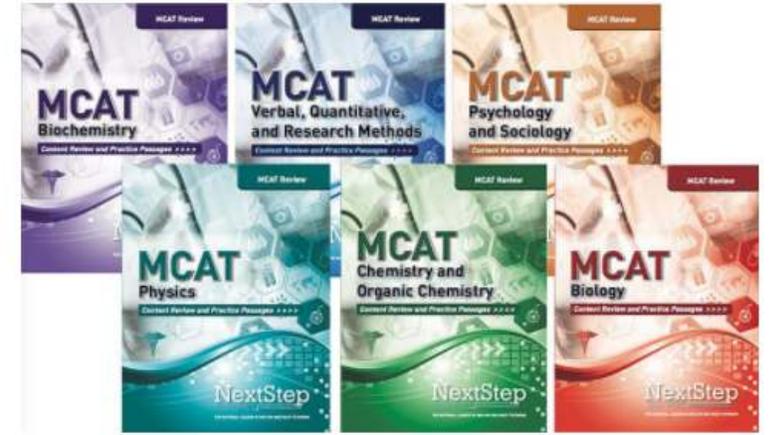
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Next Step AAMC 2 Review Video - Biological
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Take the Best Next Step

✓ Others say it. We deliver it.

- Most up-to-date Lesson Review Books in 4-color
- QBank with passage and discrete question types
- Exclusive Study Plan Generator personalized for you
- Hundreds of hours of videos
- Private, small-group Office Hours 5 days a week
- Direct access to MCAT Content Team
- Affordable prep options: from books to tutoring



MCAT Study Options

- **Best-in-Class MCAT Tutoring Packages**
 - Variety of packages: Crash Course to Elite
 - Choices include our MCAT Online Course
 - Personalized Study Plan for each student
 - Top-scoring tutors
- **Most up-to-date MCAT Course**
 - All new books in 4-color, all online AAMC resources
 - 10 full-length exams aligned to new interface
 - Live online office hours for any Q&A held 5 days per week
 - Study Plan Generator to match each student's strengths, weaknesses and schedule needs.
- **MCAT Practice Test Bundles**
 - Available in 4-, 6-, and 10-pack bundles

✓ **All aligned to new 2018 interface**

Looking for free resources, or interested in signing up for future webinars?

nextsteptestprep.com/

MCAT Retake Campaign!!!

AAMC studies show that many students improve just 2-3 points on a retake.

Retaking isn't difficult; it's figuring out what to do differently this time around

From now until May 24, 2019, receive 2 free hours of one-on-one tutoring when you send us your official MCAT scores and sign-up for Next Step's Online MCAT Course or Private Tutoring Package

Coupon codes

\$300 of the course:

MAY300

2 hours of tutoring with a course purchase:

2free

✓ **Let our tutors create a custom retake action plan for you!**

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Step

CALL 888-530-6398 FOR A FREE CONSULT

Electricity and Magnetism

$$F = kQ_1Q_2 / r^2$$

$$F = qVB\sin\theta$$

$$F = iLB\sin\theta$$

$$V = IR$$

$$P = IV$$

$$R = \rho L / A$$

$$V_{rms} = V_{max} / \sqrt{2}$$

$$I_{rms} = I_{max} / \sqrt{2}$$

Resistors in series:

$$R_{tot} = R_1 + R_2 \dots$$

Resistors in parallel:

$$1/R_{tot} = 1/R_1 + 1/R_2 \dots$$

Capacitors in series:

$$1/C_{tot} = 1/C_1 + 1/C_2 \dots$$

Capacitors in parallel:

$$C_{tot} = C_1 + C_2 \dots$$

$$C = Q/V$$

$$\text{Energy} = (1/2)QV$$

$$F = qE$$

$$V = Ed$$

$$\text{Energy} = qEd$$

$$E = kQ/r^2$$

$$\text{Energy} = kQq/r$$

$$V = kQ/r$$

$$\Delta G = -nFE$$

$$E_{cell} = E_{cath} - E_{an}$$

Waves

$$v = f\lambda$$

$$T = 1/f$$

Light

$$n_1\sin\theta_1 = n_2\sin\theta_2$$

$$\sin\theta_c = n_2/n_1$$

$$E = hf$$

$$m = -d_i / d_o$$

$$P = 1/f$$

$$f = (1/2)r$$

$$n = c/v$$

$$1/f = 1/d_i + 1/d_o$$

Sound

$$d\beta = 10 \log(I/I_0)$$

$$L = n\lambda/2 \quad (n=1, 2, \dots)$$

$$L = n\lambda/4 \quad (n=1, 3, \dots)$$

$$f_{beat} = |f_1 - f_2|$$

$$f = f_e[v \pm v_d] / [v \pm v_s]$$

Fluids

$$\rho = m/V$$

$$P = F/A$$

$$P = P_{atm} + \rho g d$$

$$F_b = \rho g V$$

$$Q = Av$$

$$P + \rho g y + (1/2) \rho v^2 =$$

constant

Gases

$$PV = nRT$$

$$\text{Boyle: } PV = k$$

$$\text{Guy-Lussac: } P/T = k$$

$$\text{Charles: } V/T = k$$

$$\text{Avogadro: } n/V = k$$

$$R_1/R_2 = \sqrt{m_2/m_1}$$

$$P_A = X_A \times P_{tot}$$

Solutions

$$pH = -\log(A^-/HA)$$

$$M = \text{mol} / L$$

$$m = \text{mol} / \text{kg}$$

$$N = M \times \# \text{ of } H^+$$

$$pH = -\log[H^+]$$

$$M_i V_i = M_f V_f$$

$$\Pi = MRT$$

$$\Delta T_f = i k_f m$$

$$\Delta T_b = i k_b m$$

$$X_A = \text{mol}_A / \text{mol}_{tot}$$

Thermo

$$\Delta U = Q - W$$

$$\Delta U = (3/2)nRT$$

$$W = P\Delta V$$

$$Q = mc\Delta T$$

$$Q = mH_L$$

$$\Delta G = \Delta H - T\Delta S$$

$$\Delta H_{rxn} = \Delta H_{prod} - \Delta H_{react}$$

Kinematics

$$v_f = v_o + at$$

$$d = v_o t + (1/2)at^2$$

$$v_f^2 = v_o^2 + 2ad$$

$$a_c = v^2 / r$$

$$F_c = mv^2 / r$$

$$v_x = v_o \cos\theta$$

$$v_y = v_o \sin\theta$$

Mechanics

$$F = ma$$

$$F_{a \text{ on } b} = -F_{b \text{ on } a}$$

$$F_{fric} = \mu F_N$$

$$F_g = GM_1 m_2 / r^2$$

$$F_g = mg$$

$$F = kx$$

$$\tau = rF\sin\theta$$

$$P = W/t$$

$$W = Fd\cos\theta$$

$$E_K = (1/2)mv^2$$

$$U = mgh$$

$$U = -GM_1 m_2 / r$$

Inclined Plane

$$F_{incline} = mg\sin\theta$$

$$F_N = mg\cos\theta$$

$$F_{fric} = \mu mg\cos\theta$$