

Welcome to Science in the Evening (SIE) The University of Maryland (UMD)



Topics for consideration

- Introductions
- Overview of program
- Courses and schedules
- Career goals
- Expectations of students
- Common questions from students
- Special discussion for pre-meds regarding the 2015 Medical
- College Admission Test (MCAT)
- **Follow-up appointments with Dr. Joelle Presson may be booked here: go.umd.edu/pressonadvising**



Introduction

- Dr. Joelle Presson, Assistant Dean, CMNS
 - SIE Director and Academic Advisor
 - Email: jpresson@umd.edu
 - Advising appointment link: <https://go.umd.edu/pressonadvising>
- General Information
 - Science in the Evening. Website: sie.umd.edu
 - CMNS Undergraduate Academic Programs Office
 - Elaine Shaw-Taylor, Program Manager
 - Email: estaylor@umd.edu
 - Telephone: 301-405-6892
- Admission, Registration, Billing
 - Extended Studies [website](#)
- The Reed-Yorke Health Professions Advising Office
 - Website: prehealth.umd.edu
 - Support for SIE medical and dental school applicants with 24 UMD science credits



Nature of program

- Started in 1996
- Administered by the College of Computer, Mathematics and Natural Science (CMNS)
- Part-time evening program. Take courses you need and have pre-requisites for
 - Program follow UMD rules, schedules
 - SIE students are UMD, part-time, non-degree seeking
- UMD science courses
 - Same as those taken by undergraduate UMD pre-health students
 - SIE is NOT accelerated – the curriculum for medical or dental school takes five to six academic semesters plus one summer
 - Sections reserved for SIE students are small
 - Carries reputation of UMD undergraduate courses and curriculum – UMD transcript
- Most students in SIE are interested in health professions. We serve students with a wide range of career goals
- Course staffing
 - Faculty are UMD instructors & adjuncts
 - Teaching Assistants (Tas) are usually undergraduate degree seeking science majors
- Cost
 - In-state per credit tuition rate plus pro-rated fees



Admission to SIE is provisional

- SIE is a non-degree, part time, post baccalaureate program
- A Bachelor's degree from an accredited university and an official transcript are required
- GPA 2.5
- Once admitted students must pass a math test for full admission
- International students...more challenging
 - SIE will accept foreign credits as pre-requisites
 - Many professional programs do not accept foreign credits as pre-requisites
 - Many professional schools do not accept non-citizens/non-residents



Math test

- Science courses at UMD require high degree of math proficiency
- Math readiness is assessed by the Math Placement Exam (MPE)
- SIE students must earn 90% on arithmetic and algebra sections, and 50% on trigonometry section
 - Arithmetic – 11 questions
 - Algebra 1-18 questions
 - Algebra 2 – 25 questions
 - Trigonometry – 14 questions
- Students must email Dr. Presson after they have taken the test to find out their results. Include your UID information in the email
- The test can be taken twice in preparation for registration in any given semester. If after two attempts the scores are not adequate, the students must defer SIE admission for a semester and retake the math test before registering in that next semester



SIE courses

- Undergraduate Biology (BSCI), Biochemistry (BCHM), Chemistry (CHEM), and Physics (PHYS)
 - Recommended courses maximize Medical College Admission Test (MCAT) and Dental Admission Test (DAT) performance and competitiveness for admission
- Basic courses offered every semester
 - Biology 1, general microbiology, cell biology
 - General chemistry 1 & 2, organic chemistry 1&2, biochemistry
 - Physics 1&2
- Other courses offered once a year
 - Genetics, physiology, immunology, special topics
- SIE does not offer
 - English, math, statistics, social science
- All course pre-requisites must be met before registration



Course schedule

- Students can start SIE in fall or spring semester
- SIE does not run in summer
- Two courses a semester is typical
- CHEM course Mondays and Wednesday
 - BSCI course Tuesdays and Thursdays
 - PHYS often taken in summer school which is not SIE–
 - Out of state students pay out of state tuition for summer courses
 - Talk with Dr. Presson if this affects you
 - You cannot take courses out of pre-requisite sequence
- Information about course requirements for health related programs may be found on the website: prehealth.umd.edu
- For other career paths contact Dr. Presson



Typical schedule for a student needing all courses.

Discuss your specific course requirements with Dr. Presson

Plan 1. Optimal preparation for MCAT with coursework starting any Fall semester			
Semester	#	Courses	
Fall	1	BSCI170 & 171 Principles of Cellular and Molecular Biology	CHEM131/132 Gen Chem 1
Spring	2	BSCI222 Genetics	CHEM231/232 Orgo 1
Summer Term	3	PHYS121	PHYS122
Fall	4	BSCI223 General Microbiology	CHEM241/242 Orgo 2
Spring	5	CHEM271/272 Gen Chem 2	BSCI330 Cell Biology
Fall	6	BSCI Scientific Readings or other upper level BSCI	BCHM463 Biochem
Spring	7	BSCI440 Physiology	STAT464 Biostat; Prepare for MCAT Consider UMD MCAT Prep Program
		take MCAT in May; Apply in June	
Glide year		Consult with Dr. Presson	



What classes should take first?

- If you have NO undergraduate science courses – for *most* career paths
 - BSCI 170/171
 - CHEM 131/132
- If you have already taken science courses
 - Start in a place to ensure success
 - If you have Cs in past courses, you should retake these courses before moving on to the next course
 - We do NOT recommend taking a course if you had the pre-requisite more than 3 years ago.
 - Retake the pre-requisite
- You will discuss your first semester courses with Dr. Presson before you register.



Day, Summer, Winter courses available to SIE students...with restrictions

- In-state tuition for out-of-state SIE students DOES NOT apply in day classes, Summer, and Winter semesters. Out-of-state SIE students will pay out of state tuition for non SIE classes,
- Day courses
 - SIE students can register first day of classes if seats are open
- Summer
 - Open registration to all students, but few courses are in the evening
 - PHYS 1, 2 offered in the Summer in evening and are manageable
 - Biology courses in Summer meet during the day
 - I do NOT recommend chemistry in the Summer
- Winter
 - Miscellaneous upper-level biology and online genetics courses
 - Winter session is only 3 weeks long and very hard to keep up with if you work





Is SIE right for you?

SIE is ideal for students who:

- Are career changers and need all of the course pre-requisites for their graduate or professional school program
- Have taken some but not all courses and need a flexible program to take just the courses they need
- Have completed most lower-level pre-requisite courses and wish to take upper-level biology courses
- Are not working more than 40 hours a week
 - Minimal personal and work travel and taking work home



Is this the right time for you to start the program?

- Other commitments
 - Job
 - Family
- Financial situation
- Academic preparation
- Maturity
 - **Students with low undergraduate GPAs benefit from taking a year or two off from school before coming to SIE**
 - **before coming to SIE**



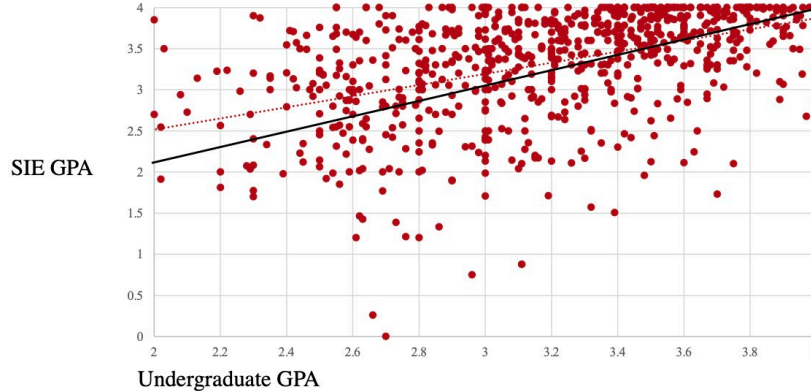
SIE is not as useful for students who:

- Have taken many science courses and are looking to increase their GPA by repeating courses. These students can enroll in SIE but...
 - A GPA based on 120 undergraduate credits is hard to raise
 - Students typically do better in SIE than they did as undergraduates, but often not good enough to get into professional school
 - Professional schools are sometimes not impressed by repeated courses



How successful will you be in SIE courses

- Most SIE students do better than they did as undergraduates, but often not a lot better
- Data from SIE students Fall 2016 through Spring 2021
- You want a SIE GPA above 3.5, which is less likely with an entering GPA below 3.0
 - Undergraduate vs SIE GPA. 795 students with 7 or more SIE credits. Black line represents When undergraduate vs SIE GPA are equal Dotted line is trend line



Advising resources

- Website: [SIE.umd.edu](https://sie.umd.edu)
 - Plans of study for pre-med, pre-dent
- Academic adviser – Dr. Presson
 - Pre-health, pre-vet, graduate school, others
 - Advising appointment link: <https://go.umd.edu/pressonadvising>
 - Website: [Prehealth.umd.edu](https://prehealth.umd.edu)
 - **HPAO has restrictions on who it will serve. Check SIE or pre-health website or email Dr. Presson**



Student Group

- Science in the Evening Non-Traditional Student Society (SIENTSS)
- <https://sites.google.com/view/sientss>
- <https://twitter.com/SIENTSSUMD>
- https://www.instagram.com/sientss/?utm_medium



Rules, regulations

- Follows the same rules as all UMD programs
- Policies for repeats, drops, adds, withdrawals are dictated by UMD rules
- Exceptions to policy petitioned are the same rules that govern all UMD students
- Courses are the same as those taken by degree seeking students, same rules, same content
- If you have special circumstances that need to be addressed email Dr. Presson



Expectations of Students

- Courses are UMD CMNS undergraduate courses
- Expect to be treated like you are 19 years old
 - Follow the rules
 - Pay attention to the expectations
 - Respect your instructors and TAs
 - Be mindful of academic integrity
- The best predictor of success is class attendance
 - Don't miss class
 - Don't come late
 - Don't expect special treatment "because I work"
 - Medical schools will not honor and respect our courses if we make exceptions to the undergraduate standards and rules



More expectations...grading

- Grading is determined by faculty, just like it was when you were an undergraduate
 - Don't expect a better grade than you earned because "you worked so hard"
 - Don't expect a better grade because your grade will keep you out of medical school
 - Don't expect me to override faculty grading.
- SIE courses are challenging and difficult
 - You can be successful if you put in enough time to master the material
 - SIE provides extensive advice and reference material on how to study and be successful



Academic Honesty

- Do Not Cheat!
- Do your own work
- Do not copy from any other source
- Make sure your work is in your own words, paraphrased, not quoted
- Pay attention to what each instructor considers cheating
- All cases of suspected academic dishonesty will be handled by the UMD Student Judicial Review Office



Tuition, financial aid, deadline dates and exst.umd.edu

- SIE students pay in-state tuition for SIE courses- not for day, summer, or winter courses
 - Part-time per credit rate charged at UMD in-state rate (unclear)
 - Out of state per credit rate charged for Summer, Winter and daytime courses
 - No financial aid
 - Student Financial Services and Cashiering
 - Website: <https://billpay.umd.edu/TPPSupplement>
- SIE program follows all UMD undergraduate policies
 - Office of the Registrar
 - Website: [Testudo.umd.edu](https://testudo.umd.edu).
 - **Information on academic deadlines, drop/add dates, repeat policy, etc.**
 - CMNS Students Services Office, 1300 Symons Hall.
 - Website: <https://cmns.umd.edu/undergraduate/current-students/advising-academic-planning/academic-policies>.
 - Exceptions to academic policy request must be submitted to this office
- Special rules for paying tuition applies to SIE students . Consult website and keep track of all EXST emails





General questions about program

To schedule an appointment with Dr. Presson, please use the link on [SIE.umd.edu](https://sle.uvm.edu)

Can I take more than two courses a semester?

- Usually no because of:
- nightly course schedule
- course pre-requisites
- if you have questions consult Dr. Presson



Can I speed up my progress by taking summer courses?

- Not usually
- SIE does not run in the Summer
- Most students take two physics courses in the regular Summer session, which does not leave room for more
- Summer courses are mostly in the daytime, except for physics
- Taking chemistry courses in the Summer is almost always a mistake. Most students end up with a C grade or lower.



Can I take just the courses I want or need?

- Yes
- As long as you have taken the pre-requisites
- Check with Dr. Presson because you probably need more than you think you do



How can I catch up from low grades?

- If you get a C grade or even a B- grade in a course you should repeat it. This will slow your progress, but it is the only path to success.
- If you forge ahead to the next course you will be even further behind
- If you earn a B- grade or lower in any course consult Dr. Presson about your overall progress and next steps
- SIE provides a student resources page with considerable information on how to study.



Can I only take the required courses for my profession, not the recommended courses?

- Yes, but that will decrease your chances of success
- You may take what you choose and have the pre- requisites for
- Remember that recommended courses are based on decades of UMD experience with who is successful and who is not

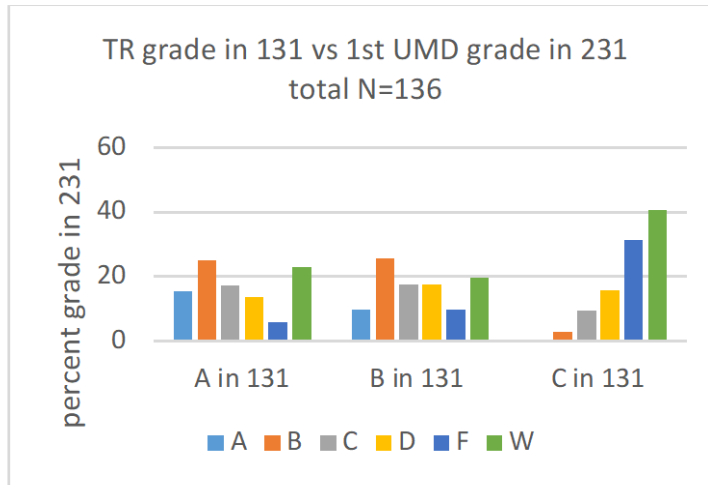
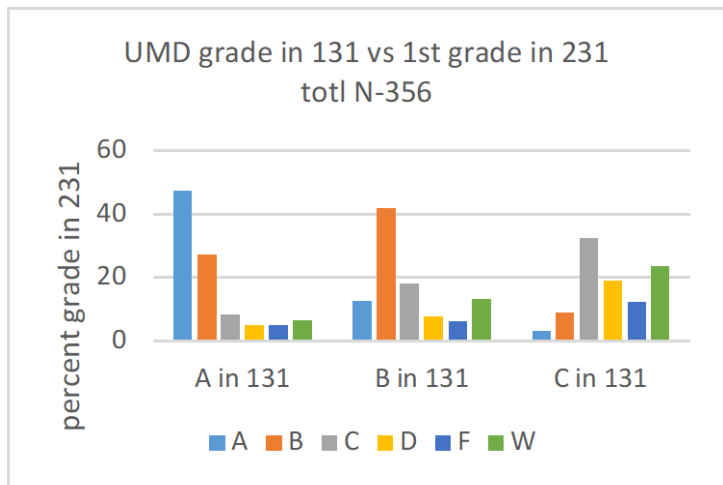


Why should I repeat a course in which I earned a C grade, rather than moving on to a higher-level course to earn an A grade?

- It is very unlikely you will earn an A grade in a higher-level course with a C grade in the pre-requisite. This is especially true for chemistry- see data in next slide
- At UMD the chem sequence goes:
 - Gen chem 1>>orgo 1>>orgo2>> gen chem 2<<biochem
 - Below are data on grades in gen chem 1 vs orgo 1, for gen chem at UMD and gen chem at a transfer institutions
 - The conclusions are self evident.



Grades in organic vs gen chem 1





Information for pre-med and pre- dent students

The application cycle, medical and dental school

- Take all recommended courses - not just those required
- Take MCAT or DAT in late May or early June
- Apply through central portal in June
- Do secondaries over the Summer
- Glide year, September through the following Summer
 - Interviews and acceptances September through April
 - Correct any deficiencies in your application in case you have to re- apply



MCAT, DAT, application

- Best time to take MCAT or DAT May – June
 - Late test dates reduce chances of admission
- Only one time to apply – June
 - Late application dates delay chances of admission
- MCAT tends to be conceptual, DAT tends to be fact oriented
- Practice, practice, practice
 - Should you pay for a prep course? It depends...
 - Yes, if you need the discipline of a regular schedule
 - Yes, if you need someone else to do content review for you
- SIE students have access to a document that summarizes all aspects of applying and preparing for MCAT and DAT



The glide year

- Assume you will have to apply again
 - Take more courses
 - Get more relevant experience
- Correct any weaknesses



Success factors for professional


- Grades, Grades, and did I say Grades?
- Test scores
- Passion for your chosen field
- Relevant experience
- Community service
- A pleasant, congenial presence
- Being special



Selling yourself

- Motivation for your new field
 - Why do you want to be...
 - Personal experience with your new field... A close relative or friend was sick, etc.
 - Emphasize what you learned not a negative experience with health care
 - Clinical experience, what you learned
 - Criticisms of the health care system - ok not too strongly. This cannot be your only motivation
 - Do you find meaning and personal accomplishment in helping others?
 - Are you comfortable around patients?
- Link your accomplishments in your current field to clinical skills
- Making up for past academic mistakes
 - Rule of thumb - two or more years of mostly A grades in rigorous science courses





Medical Schools and MCAT 2015

The medical school landscape

- Admission requirements & MCAT preparation
 - 5 CHEM courses
General chem 1, organic chem 1, organic chem 2, general chem 2, and biochem
 - Minimum of two biology courses but should take four or five for MCAT preparation
Introduction to cells & molecules, genetics, general microbiology, upper-level cell biology, mammalian physiology
 - Two semesters of physics
- **Choosing schools use Medical School Admission Requirements (MSAR)**
 - <https://apps.aamc.org/msar-ui/#/landing>



The medical school landscape

- MCAT 2015
- First offered January 2015
 - Based on Howard Hughes Medical Institute (HHMI) Scientific Foundations for Future Physicians & input from medical school faculty
- Broad and integrative
- Passages test ability to read and interpret scientific studies
- Biology section includes lots of biochemistry as applied to biology
- Physics and chemistry passages often in life sciences context
- Social science section
 - Includes neurobiology, biological basis of behavior
- CARS is logic of critical reasoning
- Normalized scores
 - 472 – 528



MCAT resources

- Association of American Colleges (AAC&S) is number one
 - Create PDFs of what is on the MCAT
 - Create section bank questions
 - Practice tests
 - Take at least two full length practice tests in a setting that comes close to the actual test situation
- Kahn Academy worked with AAC&S to develop review and practice material
- Read your own textbooks for content review. These are written by scientist educators. Use them
- Take prep course if you need the discipline
 - Look carefully as each offers different approaches



Acceptance to medical school

- Probabilities
- Best chance
 - Undergraduate GPA over 3.0
 - SIE GPA 3.5 or higher
 - The more SIE credits the better, especially if low undergraduate GPA
 - MCAT score 510 or higher, the higher the better



- AAMC best place for everything about medical school admission

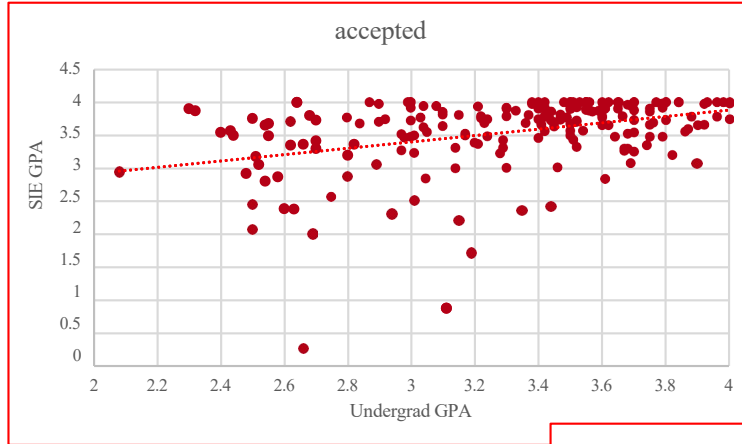
- Aamc.org

Acceptance Rate for Applicants		Total MCAT Scores									All Applicants	
		Less than 486	486-489	490-493	494-497	498-501	502-505	506-509	510-513	514-517		Greater than 517
Total GPA												
Greater than 3.79	Acceptees	2	7	44	297	1,002	2,466	5,092	7,630	7,790	8,819	33,149
	Applicants	169	327	793	1,741	3,541	6,127	9,251	11,044	10,046	10,473	53,512
	Acceptance rate %	1.2	2.1	5.5	17.1	28.3	40.2	55.0	69.1	77.5	84.2	61.9
3.60-3.79	Acceptees	5	5	60	299	938	1,917	3,433	4,924	3,984	2,573	18,138
	Applicants	460	650	1,334	2,605	4,414	6,437	8,228	8,426	5,784	3,463	41,801
	Acceptance rate %	1.1	0.8	4.5	11.5	21.3	29.8	41.7	58.4	68.9	74.3	43.4
3.40-3.59	Acceptees	9	10	39	260	701	1,244	1,963	2,386	1,647	872	9,131
	Applicants	689	855	1,574	2,702	3,989	5,084	5,842	5,026	2,875	1,357	29,993
	Acceptance rate %	1.3	1.2	2.5	9.6	17.6	24.5	33.6	47.5	57.3	64.3	30.4
3.20-3.39	Acceptees	3	9	31	150	411	700	882	957	628	280	4,051
	Applicants	823	898	1,468	2,057	2,790	3,154	2,993	2,418	1,259	509	18,369
	Acceptance rate %	0.4	1.0	2.1	7.3	14.7	22.2	29.5	39.6	49.9	55.0	22.1
3.00-3.19	Acceptees	3	4	16	95	248	348	405	352	203	121	1,795
	Applicants	903	743	985	1,416	1,623	1,684	1,542	1,095	479	230	10,700
	Acceptance rate %	0.3	0.5	1.6	6.7	15.3	20.7	26.3	32.1	42.4	52.6	16.8
2.80-2.99	Acceptees	3	5	9	25	86	137	137	106	56	35	599
	Applicants	686	528	607	679	765	777	601	367	173	75	5,258
	Acceptance rate %	0.4	0.9	1.5	3.7	11.2	17.6	22.8	28.9	32.4	46.7	11.4
2.60-2.79	Acceptees	0	4	3	14	38	45	49	35	18	7	213
	Applicants	523	325	350	346	383	273	210	146	59	25	2,640
	Acceptance rate %	0.0	1.2	0.9	4.0	9.9	16.5	23.3	24.0	30.5	28.0	8.1
2.40-2.59	Acceptees	0	0	2	5	6	7	19	7	4	3	53
	Applicants	383	171	169	152	127	102	77	38	17	10	1,246
	Acceptance rate %	0.0	0.0	1.2	3.3	4.7	6.9	24.7	18.4	23.5	30.0	4.3
2.20-2.39	Acceptees	0	0	0	3	5	3	8	3	-	-	24
	Applicants	229	76	75	65	48	36	33	18	-	-	584
	Acceptance rate %	0.0	0.0	0.0	4.6	10.4	8.3	24.2	16.7	-	-	4.1
2.00-2.19	Acceptees	0	0	0	0	0	0	-	-	-	-	4
	Applicants	109	36	37	10	11	13	-	-	-	-	235
	Acceptance rate %	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	1.7
Less than 2.00	Acceptees	0	1	0	-	-	-	-	-	-	-	1
	Applicants	50	13	10	-	-	-	-	-	-	-	90
	Acceptance rate %	0.0	7.7	0.0	-	-	-	-	-	-	-	1.1
All Applicants	Acceptees	25	45	204	1,148	3,435	6,867	11,988	16,402	14,334	12,710	67,158
	Applicants	5,024	4,622	7,402	11,780	17,692	23,690	28,791	28,582	20,701	16,144	164,428
	Acceptance rate %	0.5	1.0	2.8	9.7	19.4	29.0	41.6	57.4	69.2	78.7	40.8

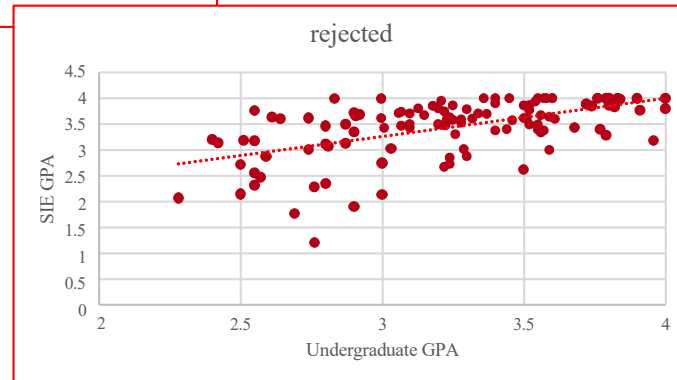


GPA's of SIE medical school accepted and rejected.

Data from from AAMCAS 2016 to 2021 database



	rejected	accepted
Mean Undergrad GPA	3.22	3.29
Mean SIE GPA	3.41	3.54
all SIE rejected	37%	
all SIE accepted	63%	



Medical school acceptances

50 SIE students who applied through UMD prehealth services

2019 - 2021

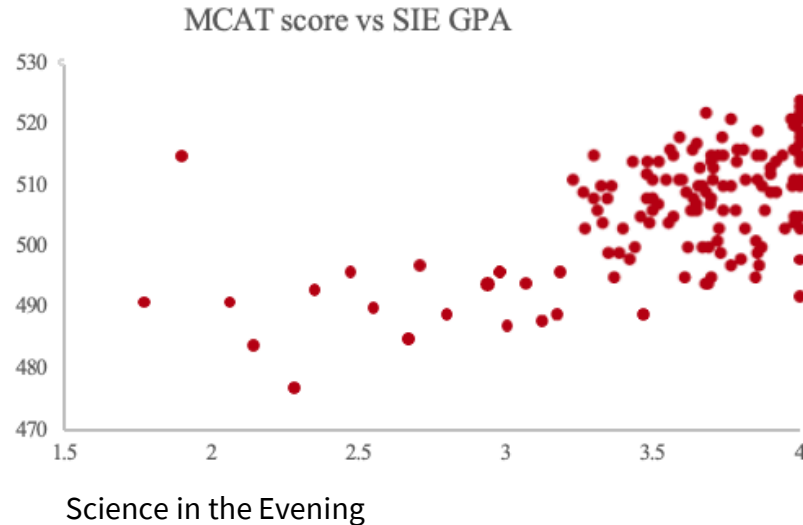
total # students	admits	rejects	re-apply	re-apply admits
50	40	10	5	4
	80%			80%
mean mcat	510	501		
range MCAT	500 522	484 519		
mean SIE GPA	3.77	3.4		
range SIE GPA	3.33 4.0	2.6 4.0		
mean UG GPA	3.5	3.11		



UMD SIE data on MCAT and admissions

- 147 SIE students
- Data from AAMC

MCAT score	% acceptance
< 500	17.6
500 - 505	41
506 - 510	80
511 -- 515	78.1
516 -- 520	87.5
> 520	100
mean	67



A vibrant campus scene featuring a large green lawn, trees with autumn foliage, and a building in the background. The text 'FEARLESSLY FORWARD' is overlaid in a white, bold, sans-serif font. The letters are cut out, revealing the background scene through them. The text is slightly tilted to the right.

FEARLESSLY

FORWARD