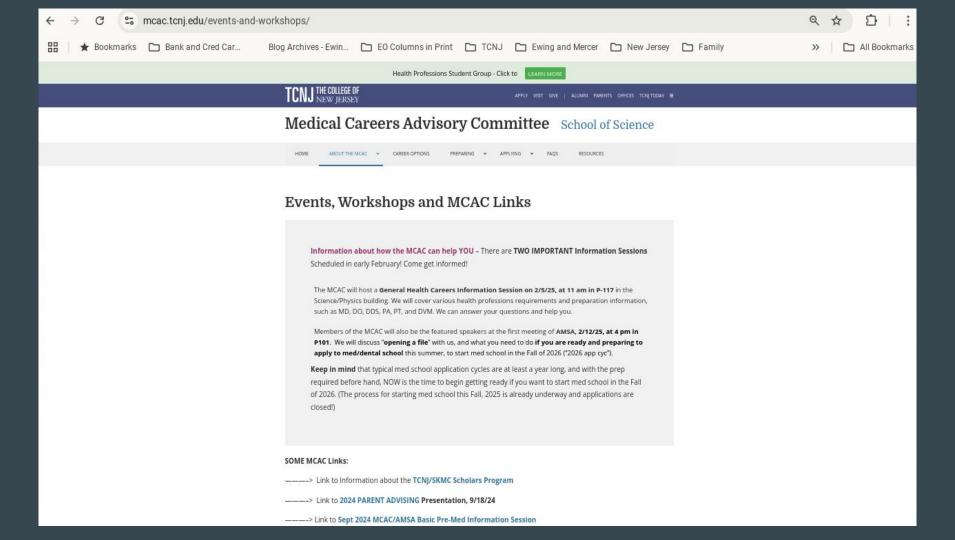
General Health Careers Advising

Ms. Helen Kull Sudhir Nayak, PhD Mitchell Sitnick, PhD

- What does the MCAC do? Do I need the MCAC? How do I get to medical (dental, optometry, etc.) school? How do I become pre-med? Where do I get reliable information? What do I need to apply? Am I a good candidate for medical school? What courses do I need? Do I have to be a biology major? Do minors help? Do I need to shadow more than one doctor? Do I need research? When should I get started? What are my chances of getting in? How important is the MCAT? Is the GPA more important than the MCAT? Does my major matter at all? Is my C in Orgo going to keep me out of medical school? What is the minimum GPA to apply? Is there a minimum MCAT to apply? MD vs DO?

- Can you talk to my parents?*
 - How long should I study for the MCAT?
 - Should I take an MCAT prep course?
 - When should I take the MCAT?
 - I want to stay (or leave) NJ?
 - Which schools? How many?
 - Does it help to be in state?
 - When should I apply?
 - Is it better to apply early?
 - How many letters of recommendation? Who gets a composite letter?
 - What happens if I don't get a composite letter? What are my chances of getting in?
 - Should I take the MCAT again?
 - Should I apply to MD, MD and DO, or DO only? What happens if I apply later in the cycle?
 - When should I think about a gap year(s)?
 - When will I know if I get in?
 - If I'm on the waitlist does it mean I'll get in?
 - What happens if I don't get in?
- Are post-bac programs worth it?



Medical Careers Advisory Committee (MCAC)

MCAC Chair

- Sudhir Nayak, PhD
- Professor of Biology
- >15 years at TCNJ

Allied Health Advisor

- Mitch Sitnick, PhD
- Clinical Lecturer
- >6 years Allied Health advising

MCAC Administrative Support

- Ms. Helen Kull
- General Advisor, Program Assistant, and Knower of Things
- Department of Biology
- >15 years at TCNJ

Ad Hoc MCAC Members (examples):

Biology: Dr. Jeffery Erickson, Dr. Tracy Kress, Dr. Keith Pecor

Chemistry: Dr. Benny Chan

Biomed Engineering: Dr. Christopher Wagner Kinesiology and Public Health: Dr. Anne Farrell

Psychology: Dr. David Blake in HSS (while Dr. Leynes on sabbatical)

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Allied Health Advisor

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MCAC Administrative Support

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Web: mcac.tcnj.edu

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- Kinesiology and Public Health:
 - Dr. Anne Farrell

Psychology:

- Dr. David Blake in HSS
- Dr. Shawn Wiley

Who are you?



Who are you?

- What year?
 - 1st year, 2nd year, etc.?
- What is your long-term goal?
 - O Physician: MD, DO
 - o Podiatrist: DPM
 - Dentist: DMD/DDS
 - Optometrist: OD
 - Veterinarian: DVM
 - Other?

- Physician Assistant: PA
- Physical Therapist: PT
- Occupational Therapist: OT
- Registered Nurse: RN
- O Nurse Practitioner: NP
- Other?

MCAC vs Allied Health at TCNJ

- MCAC aka "med careers" (Sudhir Nayak, PhD)
 - o Allopathic, osteopathic, podiatry, dental, optometry
 - MD, DO, DPM. DMD/DDS, OD
 - Typically take MCAT, DAT, OAT exams
 - Genetic counselling (MSGC)
 - Veterinary medicine (DVM/VMD)
- Allied Health (Mitch Sitnick, PhD)
 - Physicians assistant, physical therapist, occupational therapist, nursing / accelerated nursing, speech-language pathologist, and several others.
 - PA, PT, OT, RN/NP/DNP
 - Typically take GRE or PA-CAT exams

MCAC

- Assist **TCNJ** students and alumni applying to medical school and other health professional schools
 - Help students from any major
- Provide validated resources
 - Web: https://mcac.tcnj.edu/
- Presentations (like this one)
- Data-driven advising and mentoring
 - Group and individual
- Generate the composite (or committee) letter

Useful resources

- PAWS group for **everyone** (next slide)
 - QR code to sign up (get your phones ready!)
- Our Canvas non-credit Advising Courses
 - MCAC 101 for freshmen + sophomores (QR code)
 - MCAC 201 for students READY to apply to prgms
 - MCAT completed (or scheduled)
 - Updated mid-February for new app cycle
 - By request through mcac@tcnj.edu



Form to Join either/both:

- MCAC-Canvas "Basics" MCAC
 101 Course
- HEPR group in PAWS (Health Professions)



(For Fall 2024 - Spring 2025 Academic Year)

MD (Allopathic) -vs- DO (Osteopathic) Medicine

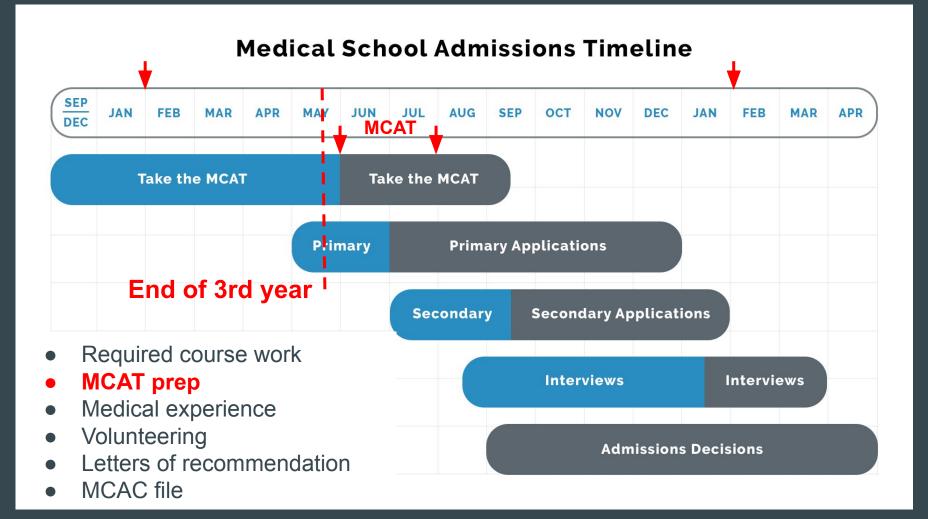
- Both programs = physician
- Similarities
 - 4 year course of study
 - Residencies programs vary Most programs are accepting either exam (USMLE or COMLEX)
- Differences
 - Philosophy
 - >60% of DO graduates are in primary care
 - <30% of MD graduates are in primary care
 - Criteria for acceptance

Timeline - 18 months, 18 months, 18 months

- Think 18 months ahead
 - The application cycle is 18 months
- What are you trying to achieve?
 - O MD, DO, DPM*, DDS/DMD, OD, PA, OT, PT
- Are you a good test taker?
 - Which test do you need?
 - Test prep is where things go terribly wrong
- Will you need summer courses at TCNJ?
 - O BIO 201, BIO 231, CHE 331/332, MAT 127, PHY* 201/202
- Will you need a GAP year? Years?

Timeline - In cycle (no gap year)

- Application cycle naming convention uses the intended start year at med school
 - E.g. this is the 2026 medical school application cycle
- MCAT
 - Ideal: Taken by the end of May <u>JUNIOR</u> year
 - Latest: Taken by the end of July
 - Your application does not exist without an MCAT
- Open a file with the MCAC
 - Spring of junior year (February 15th)
 - ≅18 months prior to intended start of med school
- Application cycle services open about 16 months prior to intended start date at med school



Paths to Medical School

- Complete 4-yr undergraduate degree (apply in your 3rd year!)
 - Traditional or standard route
- Nationally: >60% take gap year(s)
 - Med school start age: 24-26
 - Overwhelming majority go this route
- Others
 - RWJMS early assurance
 - First-generation college and low-income (PELL-eligible) students
 - Jefferson early assurance (Dr. Keith Pecor)
 - First-generation college and low-income students
 - Rowan SOM early assurance (DO, 4+4 pending)
 - St. George's University (MD, 4+4 pending)

What do I need to apply?

- Undergraduate degree*
 - Accredited college or university
 - Required coursework (application -vs- matriculation)
- Appropriate **standardized test** examples
 - More important for MD/DO programs
 - Look out for minimums!
 - Minimum -vs- competitive scores
- Experience with patients
 - Direct patient contact > shadowing
- Demonstrated service to others
- Letters of recommendation

Required Coursework MD/DO

- Standard
 - 2 semesters of Biology with laboratory
 - BIO 201 and BIO 211
 - o 2 semesters of Inorganic Chemistry with laboratory
 - CHE 201 and CHE 202
 - o 2 semesters of Organic Chemistry with laboratory
 - CHE 331 and CHE 332
 - 2 semesters of Physics with laboratory
 - PHY 121/201 and PHY 122/202
 - Most do not require calculus based physics
- Your grades in these courses are important
 - The MCAT is more important

Required Coursework MD/DO

- Most medical schools also require:
 - 2 semesters of English or writing intensive courses
 - Any TCNJ major covers this
 - 1-2 semesters of Math
 - MAT 127 and STA 215 (or MAT 128)*
 - Non-STEM majors need to address this
- Other considerations
 - Courses have prerequisites
 - Examples: MAT 127, CHE 201
 - Recommended: Biochemistry*, genetics, Psych/Soc, public health, microbiology*, advanced courses, etc.
 - Will vary for MD, DO, dental, optometry, etc.

Which test do I need to take?

- Allopathic, osteopathic, podiatric
 - \bigcirc MD, DO, DPM = MCAT
- Optometry
 - \circ OD = OAT
- Dental
 - \circ DMD/DDS = DAT
- Physicians assistant
 - \circ PA = GRE, PA-CAT

Letters of recommendation

- 3-5 **STRONG** letters
 - STEM professor x2
 - Other professor
 - Volunteer
 - o Professional in the field (DO, DVM/VMD, DPM, OD)*
- Personal statement
 - Consistent?
 - On't overthink this and don't spend too much time on it
- Target schools?
 - Look for school specific requirements

Exceptions you should look out for

- Biochemistry
 - Some medical schools require a second course in biochemistry
 - BIO 211 counts as the first
 - With organic chemistry as a prerequisite
 - Examples: Arizona, Arkansas, Florida State, etc.
- Specific course requirements
 - Microbiology (e.g. Duke)
- Calculus B
 - A couple of medical school require/recommend calculus B
- Odd English course requirements
 - 2-3 English courses taught by the English department
 - FYW, FYS, mid-level writing, and senior seminar do not count
- Minimum MCAT or grade requirements

Is research critical?

- No.
 - There is no difference between the admission rates
 - Can doing research help? (Positive)
 - Strong letter if you do a good job
 - Problem solving skills
 - Can doing research hurt? (Negative)
 - What if you do not do a good job because it is a secondary activity?
 - Takes time away from medically relevant opportunities
 - EMT, volunteering, shadowing, MCAT prep
- Exceptions
 - MSTP (medical scientist training programs) aka combined degree
 - o MD / PhD, DO / PhD, OD / PhD, DMD / PhD

Do I need research?

- American Medical Association (AMA) Position
 - Research isn't required to secure a residency position (or for admission to medical school)
 - Research is not required for admission to medical school
 - Survey of program directors conducted by the National Resident Matching Program
 - 12 other factors were seen as more important over "involvement and interest in research"
- Really, the answer is **NO**
- You should do research if you like it

There are a lot of applicants

- NJMS: **≅7000**
- RWJMS: **≅6000**
- Hackensack Meridian: >6000
- Sidney Kimmel Medical College (Jefferson): >10,000
- Penn State: **>9,000**
- Rowan (Osteopathic): >6000
- Most MD/DO program get between 5000-10,000 applicants

Are you a candidate or a good candidate?

- Do you exceed the averages of the school?
 - In state -vs- out of state bias*
 - Public -vs- private
- Strong GPA*
 - 3.6 is OK, >3.7 is better
- Strong test score*
 - o MCAT 510 is OK but 512 (>80%) for MD is better
 - DAT 20 or better (>75%)
 - OAT 330 or better (>75%)

Reflect: Are you a good candidate?

- Academics
 - GPA, coursework, **MCAT**
- Service and/or clinical experience
 - Shadowing vs direct patient contact
- Strong letters of recommendation
 - Please, please, please, select your writers carefully
- Strong communication and people skills
 - The interview is important
- Long term commitments: "Ask them if they are just checking boxes or actually committing to things."
 - George Heinrich, MD NJMS

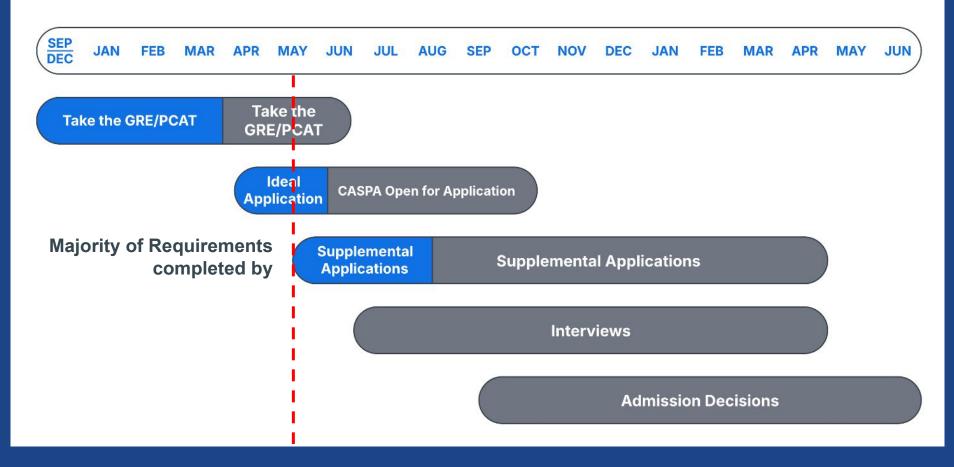
Timeline - PA

- As soon as you decide you want to be a PA look at the different programs you might be interested
 - No clear consensus on what you need
- You want to submit everything when the portal opens
- **≅16-18 months** prior to the desired start date is when your application should be ready
 - Required Coursework*
 - \circ Experiences
 - Letters of Recommendation
 - Standardized Tests

Timeline - No gap year

- GRE/PA-CAT
 - Ideal: Taken by winter/early **spring <u>JUNIOR</u> year**
 - Retake by mid summer
- CASPA opens ~April (check your schools)
 - Submit your applications by May of your junior year
 - Applications need to be VERIFIED by application deadline
 - Most programs are filled by summer
- Look for secondary applications around May/June of junior year
 - ~1 month after submission of application
- Remaining prerequisites Fall semester senior
 - Limit to 1-2 course

Physician Assistant School Admission Timeline



Required Coursework PA

- "Common Core"
 - 2 semesters of Biology with laboratory
 - BIO 201 and BIO 211
 - 2 semesters of Inorganic Chemistry with laboratory
 - CHE 201 and CHE 202
 - 2 semesters of Anatomy & Physiology with laboratory
 - BIO 301 and BIO 302
 - 1 semester of Microbiology
 - BIO 312
 - 1 semester of Statistics
 - STA 215
 - 1 semester of psychology
 - PSY 201
- Your grades in these courses are important

Required Coursework PA

- Other classes you might see
 - Biochemistry
 - Should confirm whether BIO 211 will count
 - INFO on BIO 211 name change and course content: https://biology.tcnj.edu/resources-for/current-students/regarding-the-name-change-for-bio-211/
 - 1-2 Semesters of Math
 - STA 215 and some Calculus (MAT 120/127)
 - Genetics
 - BIO 231
 - Medical Terminology
 - KHS 200
 - Other random gen ed classes (social sciences, other health, public health etc.)
- These classes do not consider prerequisite courses

PA things to consider

- Major doesn't matter as long as you have the courses
- Rigor Matters
 - If there are multiple versions of a class, be sure it is of an "acceptable" level
 - E.G. At TCNJ there are 3 versions of A&P
- When you need to finish classes before application
- When you took/take your course matters
- How many times you took a class

PA activities you need

- Each school has different requirements regarding activities that are required vs. recommended
- Patient Facing is good
 - Volunteer or paid, if it has a clinical aspect it is good
 - Shadowing
 - Clinical research
- Research is good
- Things to consider regarding activities
 - Hours matter but so does quality*
 - Absolutely should have PA specific experience
 - Some schools allow virtual shadowing/healthcare

Are you a good candidate? - PA edition

- Do you meet the minimum requirements for ____?
 - Minimum means they will not immediately reject your application
- Competitive means you are **WELL** above the minimum
 - o GPA
 - o GRE/PA-CAT
 - Experience Hours
- Most schools want at least a 3.0 cumulative GPA
 - Minimum is 3.0 cumulative GPA, 100-300 hrs of experience.
 - Competitive/Matriculated average: 3.6 4.0, Thousands of hours of experience, >300 on GRE

Things to be aware of

- Your GPA in PAWs is not necessarily your application GPA
 - As part of verification you need to input the grades for all attempts of your classes
 - Where, when, grade etc.
 - This includes repeated attempts
- CASPA then will categorize and calculate your GPAs during verification
 - Cumulative
 - Science
 - Prerequisite
 - Year
- Repeating the class doesn't remove the grade
- Not all A's are created equal
 - RIGOR matters!
- Need a minimum grade for class to count as a prerequisite

PA - CAT

- It's coming
- The PA MCAT
- 3hr test, 180 multiple choice based on 12 general PA requirements

0	Anatomy & Physiology	26%	
0	Gen. Biology	13%	
0	Microbiology	9%	←
0	Gen Chemistry	11%	←
0	Org. Chemistry	9%	
0	Biochemistry	12%	
0	Statistics	3%	
0	Medical Terminology	1%	
0	Sociology	4%	◆
0	Psychology	8%	
0	Genetics	4%	

Required Coursework PT

- 2 semesters of Biology with laboratory
 - BIO 201 and BIO 211
- 2 semesters of Inorganic Chemistry with laboratory
 - CHE 201 and CHE 202
- 2 semesters of Anatomy & Physiology with laboratory
 - BIO 301 and BIO 302
- 2 semesters of Physics
 - PHY 201 and PHY 202
 - Most do not require calculus based physics
- 1 semester of Statistics
 - STA 215
- 2 semester of behavioral sciences
 - o psyc/soc/public health
- Your grades in these courses are important

Take home messages

- Everyone has their own path
 - Apply when you are ready
 - There is no guarantee of admission
- The **MCAC** is here for advice and support
 - O Have a schedule and a plan, but be flexible
- Our advice
 - Focus on your undergraduate studies
 - Build measurable skills
 - You cannot repeat your college career
 - Academic damage is difficult to undo
 - Be self reflective and realistic
 - Know when to consider other medical careers

Homework: What is your pathway?

- Consider the things we covered in this presentation
- What schools are you going to target?
 - Are you a good candidate? Minimums -vs- competitive?
- What standardized do you need to take?
 - When do you need the score?
 - When are you going to study?
- What courses do you need specifically at TCNJ?
 - When are you going to take them? Do you need them for a standardized test?
 - BA or BS? Summer?
- How are your STEM grades? Overall GPA?
 - Are they consistent with your long term goals?
 - o MD, DO, etc.
- What experiences are you going to seek out?
 - Volunteering, patient care, etc.
- Are you planning a gap year?
 - o Or more?

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