Neuroscience Premed Concentration

Dr. Wilson Chung
Associate Professor
Director Neuroscience program
Department of Biological Sciences

Contact information: wchung@kent.edu
330-672-3641

• What Medical Schools Require
• Building your Resume to impress Medical Schools
• Preparing to Apply
• Alternative Career Pathways
Prerequisites for Medical Schools

Each Medical School is Unique in their Requirements!

Degree from a 4-year University

- 1 year of General Chemistry + labs
- 1 year of Organic Chemistry + labs
- 1 year of Physics + labs
- 1 year of Biology + labs
Neuroscience
Premed
Concentration

Neuroscience major requirements 42
Premed requirements 40
Neuroscience electives 14
Additional KSU requirements 24

SOC 12050 INTRODUCTION TO SOCIOLOGY (DIVD) (KSS) 3
MATH 11022 TRIGONOMETRY (KMCR) 3
MATH 12002 ANALYTIC GEOMETRY AND CALCULUS I (KMCR) 5
BSCI 30130 HUMAN PHYSIOLOGY 3
or BSCI 40430 ANIMAL PHYSIOLOGY
BSCI 30171 GENERAL MICROBIOLOGY 4
CHEM 20481 BASIC ORGANIC CHEMISTRY I 4
or CHEM 30481 ORGANIC CHEMISTRY I
CHEM 30475 ORGANIC CHEMISTRY LABORATORY I (ELR) 1
CHEM 20482 BASIC ORGANIC CHEMISTRY II 2
or CHEM 30482 ORGANIC CHEMISTRY II
CHEM 30476 ORGANIC CHEMISTRY LABORATORY II 1
### Neuroscience Premed Concentration

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroscience major requirements</td>
<td>CHEM 30284</td>
<td>INTRODUCTORY BIOLOGICAL CHEMISTRY</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or CHEM 40245</td>
<td>BIOCHEMICAL FOUNDATIONS OF MEDICINE</td>
<td></td>
</tr>
<tr>
<td>Premed requirements</td>
<td>PHY 13001 &amp; 13021</td>
<td>GENERAL COLLEGE PHYSICS I (KBS) and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>or PHY 23101</td>
<td>GENERAL UNIVERSITY PHYSICS I (KBS) (KLAB)</td>
<td></td>
</tr>
<tr>
<td>Neuroscience electives</td>
<td>PHY 13002 &amp; 13022</td>
<td>GENERAL COLLEGE PHYSICS II (KBS) and GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>or PHY 23102</td>
<td>GENERAL UNIVERSITY PHYSICS II (KBS) (KLAB)</td>
<td></td>
</tr>
<tr>
<td>Additional KSU requirements</td>
<td>Neuroscience Electives</td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>
NOTE!!

- Premed requirements for your MAJOR are set by Kent State University

- Completion of the premed requirements does NOT guarantee that you will have fulfilled all the prerequisites required by a particular medical school!!!

- It is your responsibility to KNOW the prerequisites for each school you apply to!
Medical Schools: Select for Excellence in 3 Categories

1: Academic Metrics
- GPA
- MCAT Percentile
  - Superior: 3.8-4.0, 98-100%
  - Outstanding: 3.65-3.79, 93-97%
  - Strong: 3.45-3.64, 80-92%
  - Acceptable: 3.2-3.44, 50-79%
  - Concerning: <3.2, <50%

2: Experiences
- Health-related research
- Working in groups
- Leadership

3: Attributes
- Compassion
- Communication
- Critical thinking
- Independence
- Resilience
- Self aware
- Collegial
1: Academic:

GPA: study, study, study, ask professor questions, join study group, supplemental instruction, summer courses

MCAT: explore content, study while taking each course, take practice tests & develop a strategy

2: Experiences and 3: Attributes:

Medical Experience: spend time interacting with patients and doctors (EMT, hospice, County Health Department, medical mission trips, nurse aid, hospital volunteer, free clinics, shadowing)

Empathy/Compassion: if you like helping people, then DO it! (Crisis Hotline, Habitat for Humanity, Big Brother-Big Sister, Red Cross, Food Bank, Peace Core, alternative spring break trip, Hattie’s House)

Science Research: hands-on experience in biomedical research

Leadership: be engaged in what you do
Preparation Time-Line for Application

Start Early!
Be organized!

Freshman Year:
General Chemistry + Labs
Foundations
General Psychology

Sophomore Year:
Organic Chemistry + Labs
Genetics & Cell Biology
Introduction to Sociology

Junior Year:
Physics + Labs
Biochemistry
Physiology & Microbiology

Get involved!
Explore career options.
See your faculty advisor & ask for their advice

Deepen your involvement
Shadow & internships
Begin MCAT prep!
Ask your faculty advisor if you are on track!

Leadership position
Continue shadowing
Prepare to apply!
Ask your faculty advisor about weakness of your application
Preparation Time-Line for Application

Start Early!
Be organized!
Junior and Senior Years

1: Fall of Junior Year
• 2-3 hour/wk MCAT prep
• Write personal statement
• Generate list of 15 experiences

2: Spring of Junior Year
• 4-5 hour/wk MCAT prep
• Apply to Premed Committee

3: Summer of Senior Year
• Take MCAT (May-July)
• Apply to Medical School (June-July)

4: Fall/Spring of Senior Year
• Complete Secondary Applications
• Interview

Begin Medical School the following Fall!
Consider: Premed Committee

Stress test your application before sending it in

Apply for a Premed Committee Letter from Kent State

- Complete Application
- Personal Statement
- 15 Experiences
- 3-5 Letters of Recommendation
- Transcripts

A. Interview with members of the Premed Committee
B. Receive feedback on ways to improve application, interview skills, pathways to medical school

https://www.kent.edu/cas/pre-med-committee
What If You Don’t Get In?

Re-evaluate your application

What was the problem?

- Low GPA
- Lack of medical experience
- Little-to-no community service
- Low passion for science and research
- Introvert

Create a plan to address weaknesses before reapplying
Keep mind open to alternative careers. Leave Kent State with at least two career options!

Consider why you want to enter Medical School?

Do you like working with & helping people? (Physicians Assistant, Occupational Therapist, Physical Therapist, Social Worker)

Do you like diagnostics & problem solving? (PhD program, Lab Technician, Pathologist Assistant, Cytotechnologist, Medical Technician, Radiology Technician)

Do you like the hospital atmosphere & being part of a health care team? (Cardiovascular Perfusionist, Anesthesiologist Assistant, Pharmacist)