



Marshall B.  
KETCHUM UNIVERSITY



MARSHALL B. KETCHUM UNIVERSITY  
**COURSE CATALOG**

23 / 24

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# CHAPTER I: INTRODUCTION

## VISION, MISSION, CORE VALUES AND INSTITUTIONAL LEARNING OUTCOMES

### Vision

We seek to reimagine the future of health care education.

### Mission

The mission of Marshall B. Ketchum University is to educate caring, inspired health care professionals who are prepared to deliver collaborative, patient-centric health care in an interprofessional environment.

### Core Values

Marshall B. Ketchum University is guided by the values of: Accountability, Caring, Excellence, Innovation and Respect.

#### Accountability

We are committed to honesty, fairness and responsibility for our words and actions.

#### Caring

We strive to address the needs of our university community and others by nurturing a spirit of compassion.

#### Excellence

Consistent with our legacy, we are committed to achieving outcomes of the highest quality.

#### Innovation

We have the courage to dream and experiment with creative and unique ideas.

#### Respect

We value the unique talents and diversity of people, strive to work collaboratively, and honor the open exchange of ideas.

## Institutional Learning Outcomes [ILO(S)]

### Domain 1: Communication

MBKU graduates demonstrate competence in listening, reading, speaking, writing and interpersonal skills.

### Domain 2: Analytical reasoning and problem solving

MBKU graduates demonstrate competence in assimilation, evaluation and interpretation of evidence from multiple sources; and the application of that information to achieve optimal patient outcomes.

### Domain 3: Interprofessional health education

MBKU graduates demonstrate competence as members of the healthcare team to provide quality health care services in an interprofessional environment.

### Domain 4: Health information Literacy and Lifelong learning

MBKU graduates demonstrate ongoing competence to identify and analyze evidence-based health information in formulating successful outcomes for patients.

### Domain 5: Professionalism

MBKU graduates demonstrate their professional competence with published standards of practice and codes of conduct as health care providers.



## UNIVERSITY ACCREDITATIONS

MBKU is regionally accredited by the WASC Senior College & University Commission (WSCUC), 1001 Marina Village Parkway, Suite 402, Alameda, CA 94501; 510.748.9001; Email: [wascsr@wascsenior.org](mailto:wascsr@wascsenior.org).

The Doctor of Optometry program at SCCO is accredited professionally and nationally by the Accreditation Council on Optometric Education of the American Optometric Association, 243 North Lindbergh Boulevard., St. Louis, MO 63141-7881.

The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) has granted **Accreditation-Continued** status to the **Marshall B. Ketchum University Physician Assistant Program** sponsored by **Marshall B. Ketchum University**. Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA *Standards*. Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards. The approximate date for the next validation review of the program by the ARC-PA will be **March 2029**. The review date is contingent upon continued compliance with the Accreditation *Standards* and ARC-PA policy.

Marshall B. Ketchum University College of Pharmacy's Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE), 135 South LaSalle Street, Suite 4100, Chicago, IL 60603; Phone: 312.644.3575; Fax: 866.228.2631; Web: [acpe-accredit.org](http://acpe-accredit.org).

## HISTORY

### About Marshall B. Ketchum University

The health care university known today as Marshall B. Ketchum University evolved in response to the growing need to provide health care education in an interprofessional setting. Tracing our roots to the founding of the Los Angeles School of Ophthalmology and Optometry in 1904, we have become a new kind of health care university in response to changes in health care delivery. At MBKU, we focus not only on expert specialty training but also prepare practitioners to work in a multidisciplinary, collaborative practice environment.

### Our Beginnings

The history of MBKU begins in 1904 with the founding of the Los Angeles School of Ophthalmology and Optometry that, over the years, became the Southern California College of Optometry (SCCO). As the third oldest school of optometry in the United States, SCCO has always been a leader in health care education. As the delivery of health care evolved to emphasize practitioners working together as a team, it was clear to the leadership of SCCO that the approach to health care education needed to change.

### MBKU Founded

In 2013, the SCCO Board of Trustees approved a university structure that would allow for additional programs, naming it after the founder of SCCO, Dr. Marshall B. Ketchum. Soon after, under the leadership of President Kevin L. Alexander, a Physician Assistant (PA) program was added and later a College of Pharmacy. Our approach to health care education includes: 1) world-class education within each discipline, 2) interprofessional training opportunities and 3) learning that combines advanced clinical training with innovative teaching methods. In short, at MBKU, we train you for the future of patient care.

## PROGRAMS

MBKU offers the following degrees and programs:

- Doctor of Optometry (OD)
- Doctor of Pharmacy (PharmD)
- Master of Medical Science (MMS)
- Master of Science in Vision Science (MS)
- Master of Science in Clinical Optometry (MS)
- Honorary Degrees
- Optometric Residency Programs
- Continuing Education

## Continuing Education

The MBKU Department of Continuing Education promotes lifelong learning through presentation of current and clinically relevant broad-based continuing education to health professionals primarily directed at optometrists, PAs and pharmacists. MBKU continuing education programs encompass a full scope of health-related evidence based courses designed to enhance patient care. Programs are delivered in approved formats that include live, hands on and online education courses.

## Honorary Degrees

Honorary degrees may be conferred by the MBKU Board of Trustees upon those who merit recognition for distinct contributions or outstanding service to society, the university and/or the profession. The honorary degrees granted are Doctor of Ocular Science, Doctor of Humane Letters and Doctor of Laws. Honorary degrees shall not be conferred in absentia, nor shall an honorary degree be awarded as an earned degree.

## COMPLIANCE STATEMENT

MBKU makes every effort to comply responsibly, and in a timely manner, with every state and federal government regulation involving the welfare of its students. Following are items of importance that address MBKU's ongoing efforts.

### Use of the Catalog

The University Catalog is an annually published reference piece for prospective and matriculated students. The Catalog contains all programs offered by MBKU. Matriculated students will also be referred to the University Student Handbook and individual program student handbooks.

MBKU assumes no responsibility for errors in, misrepresentation of, or misinterpretation of these policies. Please read the information carefully and be sure to contact Admissions, if you are a prospective student, or University Student Affairs, if you are a current student, for clarification or more information.

Every effort has been made to verify the accuracy of information contained in our Catalog, however, Marshall B. Ketchum University reserves the right to change without notice degree requirements, curriculum, courses, teaching personnel, rules, regulations, tuition, fees, and any published information herein.

The information in the Catalog is intended to serve only as an announcement. The University Catalog should not be regarded as a contract.

### Non-Discrimination Statement

MBKU is committed to providing an environment in which all individuals are treated with respect and professionalism. In accordance with applicable federal and state laws, it is University policy to prevent the unlawful discrimination against students, applicants for admission, employees, applicants for employment and patients requesting treatment on the basis of race, color, national origin, sex, disability, age or any other characteristic protected by applicable law. The University also prohibits sexual harassment and harassment on any of the above bases (refer to the [Prohibited Discrimination, Unlawful Harassment & Sexual Misconduct Policy](#)).

Inquiries regarding the University's equal opportunity policies should be directed to the Vice President for Enrollment and Student Services at [studentaffairs@ketchum.edu](mailto:studentaffairs@ketchum.edu) for students and the Vice President for Human Resources at [humanresources@ketchum.edu](mailto:humanresources@ketchum.edu) for employees.

For further information on notice of non-discrimination, please contact the Office for Civil Rights at [ocrcas.ed.gov/](http://ocrcas.ed.gov/) for the address and phone number of the office that serves your area, or call 1.800.421.3481.

### Prohibited Harassment and Retaliation Policy

The University is committed to being a community in which individuals, including students, faculty, staff and administration, are free of prohibited harassment. The University will not tolerate any type of harassment against individuals on the basis of race, color, national origin, ancestry, sex (including pregnancy, childbirth, related medical conditions, and breastfeeding), gender, gender identity, gender expression, sexual orientation, age, religion (including religious dress and grooming practices), physical or mental disability, medical condition, marital status, military or veteran status, genetic information, citizenship, primary language, or immigration status, or any other basis protected by applicable federal, state, or local law ("a protected category"). The University also prohibits harassment based on the perception that an individual has the characteristics of someone in a protected category or is associated with a person who has or is perceived as having the characteristics of someone in a protected category. Violence, or intimidation by threat of violence, because of political affiliation, position in a labor dispute, or on account of a protected category is prohibited as well. This policy applies at all University locations, University-sponsored social or other events, as well as activities at which individuals represent the University.

Harassment includes expressly or impliedly conditioning a benefit (or the absence of a detriment) on sexual favors, or the creation of a hostile university environment through visual, verbal, or physical conduct. Prohibited conduct includes any of the following when related to a protected category: making slurs, innuendos, or potentially offensive comments or jokes; the display of potentially offensive cartoons, posters, or other materials; distributing potentially offensive pictures or words in written, pictorial, or electronic form; touching, or other unwanted attention; threats, intimidation, or other abusive behavior.

Harassment is prohibited if it is related to a protected category, is unwelcome, and is severe or pervasive enough to create an intimidating, hostile, or offensive environment that alters conditions at the University. The University does not allow anyone to harass University students, employees, applicants, independent contractors, or volunteers on the basis of a protected category.

Additionally, the law prohibits unlawful harassment (and discrimination and retaliation) (e.g., Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title III of the Americans with Disabilities Act, Unruh Civil Rights Act, Ralph Civil Rights Act). Harassment can be a form of unlawful discrimination. To report prohibited harassment and/or unlawful discrimination, please contact the MBKU Title IX Coordinator ([titleix@ketchum.edu](mailto:titleix@ketchum.edu) or 714.449.7423) or use the "Report a Concern" form found on the Community Tab of [my.ketchum.edu](http://my.ketchum.edu).

## **Student Right-to-Know and Campus Security Act**

MBKU continuously strives to provide a safe and secure environment for classroom, work, study and after-hours activities at all university-owned facilities. In accordance with Public Law 101-524, MBKU maintains and provides a complete record of all crimes committed on University and Security-owned property. More information is available on the University's website, [ketchum.edu](http://ketchum.edu), along with the Annual Safety Report.

## **Privacy of Records**

MBKU complies fully with the Family Educational Rights and Privacy Act of 1974, which protects the privacy of students' education records, establishes the right of students to inspect and review their education records and provides guidelines for the correction of inaccurate or misleading data through informal hearings. Students also have the right to file complaints with the U.S. Department of Education, Washington, D.C. 20202, concerning alleged failure by the university to comply with the Act, Education Code, Section 94312 (f). Any questions or problems concerning this institution which have not been satisfactorily answered or resolved by the institution should be directed to the Superintendent of Public Instruction, State Department of Education, Sacramento, CA 94244-2720.

## **Complaint Disclosure Notice**

MBKU is committed to addressing student complaints timely and effectively, in accordance with the University's Student Grievance Procedures. If a student believes that the University's procedures have not adequately addressed their concerns, students may also file external complaints with the agencies identified below.

### **Bureau for Private Postsecondary Education**

A complaint may be filed by writing or calling the Bureau's Enforcement Section at the following address and telephone number:

Bureau for Private Postsecondary Education  
P.O. Box 980818  
West Sacramento, CA 95798-0818

For more information see [How to File a Complaint](#).

An alternative avenue for filing a Complaint is to utilize the California Department of Consumer Affairs' (DCA) online Complaint [Form](#). The DCA will forward the Online Complaint to the Bureau.

Anyone may file a complaint if they believe an approved institution has violated the laws governing the institution's operation. Complaints are most often received from students, their families, other members of the private postsecondary education industry, law enforcement agencies, and other regulatory agencies.

# CHAPTER II: UNIVERSITY POLICIES AND PROCEDURES

## ACADEMIC POLICIES

The objective of MBKU is to provide a premier educational experience with emphasis on the needs of the students as individuals while they pursue a rigorous course of study. In addition to the academic learning opportunity, it is expected that the faculty, staff, curriculum, and atmosphere will combine to foster the growth of the student, as a person, with understanding and maturity as well as technical expertise. Students are admitted with the expectation that all academic and clinical requirements will be completed within the Program's timeframe. All faculty and staff embrace the responsibility for educating, supporting, and assisting students whenever possible and within reason.

Graduation requirements as well as academic standing/progression vary according to the Program and may be found in each Program Student Handbook. For student support type services offered, please see the University Student Handbook and Program Student Handbook.

### Academic Integrity

Academic integrity is simply defined as honest work. As aspiring health care providers, you have already made a commitment to upholding yourself to high standards. As a student practitioner, you will take a student oath and commit yourself to your profession and future patients. Honest academic work is essential to quality patient care. Academic integrity maintains the high value in the educational process and ultimately to your degree and professional license.

Faculty shall work to enhance a culture of academic integrity at the University. Faculty members shall state in their course syllabus that the course will adhere to this Academic Integrity Policy and the Student Conduct.

Course instructors may choose to address academic integrity as it applies to their course components, such as homework, written assignments, lab work, group projects, quizzes, and exams. Course instructors shall decide which course components will use an honor code commitment. For those course components, the course instructor shall provide the opportunity for students to sign an affirmative honor code commitment. The honor code commitment shall include one of the following statements and may be expanded according to instructor, department, or college practices and policies:

#### Honor Code Commitment

I have not given and will not give, receive, or use any unauthorized assistance. I will hold myself and others accountable for upholding this commitment.

Academic misconduct (see Student Conduct) undermines the educational experience at MBKU, reduces confidence in the quality of education, and negatively affects the faculty student relationship.

Faculty/Instructors are expected to use reasonably practical means of preventing and detecting academic misconduct.

Any student found responsible for having engaged in academic misconduct will be subject to academic penalty and/or University disciplinary action, up to and including suspension or expulsion.

Students are encouraged to positively impact the academic integrity culture of MBKU by reporting incidents of academic misconduct.

Instructors shall follow the following procedures when they feel academic misconduct has occurred:

- If faculty members have evidence that a student has engaged in an act of academic misconduct in their course, prior to assigning any academic penalty, the course instructor shall notify the student of the concern and include the college's Conduct Officer. The program Conduct Officer shall follow the procedures outlined in the Student Conduct chapter of University Student Handbook.

### Academic Dismissal, Probation, or Warning

Rules for academic dismissal, probations, or warning vary according to the academic Program and may be found in the Program Student Handbooks. Students who are not making satisfactory progress may not be eligible to receive loan monies through programs of the federal government (refer to the Financial Aid Policies section of the catalog for more detailed information).

### Attendance

Marshall B. Ketchum University expects regular attendance at all lectures, laboratory and clinic sessions to which the student is assigned. Each program determines the specific attendance policy and procedures (see Program Student Handbook). The record of attendance is the responsibility of each individual instructor. Permission to be absent must be obtained from the dean/director of the program or the Program designee. Instructors are not obligated to provide special consideration in the case of unexcused absences. Repeated unexcused absences may result in a student being placed on professional probation. In addition, students wishing to

participate in off-campus meetings during the academic year must receive academic approval from the dean/director and may not be on academic probation.

The academic credits at MBKU are described in terms of quarter credit hours. One credit hour represents one hour per week in the classroom during a 10-week quarter, two hours per week devoted to the laboratory, or four hours per week of clinical work or equivalent contact hours.

Examinations are held in each course and are required of all students taking the course. All students must take all examinations, including final examinations, at the assigned time, unless prior arrangements have been approved by the instructor of record. Each program determines the procedures for reporting if a student must miss an exam because of an emergency (see Program Student Handbook). All missed exams must be made up as specified by the Program. Course grades are assigned by the instructor of record.

Occasionally students may need to miss scheduled assignments due to special circumstances or minor illnesses. This type of time off request is reported to the student's Program through their procedures, which may be found in the respective Program Student Handbook/course syllabus. Specific request procedures/forms vary by Program. Make up for time-missed assignments/examinations will be at the discretion of the course instructor.

The amount of time away from both the didactic and clinic portions of the curriculum vary by the Program. The Dean/Director, in consultation with the appropriate faculty, will evaluate student absences on an individual basis. Decision regarding the necessity for an extended absence (see below) will depend upon the quantity and quality of material missed during the absence.

## Audit Policy

Auditing a course typically occurs when a student is either encouraged to repeat courses that were successfully completed or has a personal desire to repeat these courses. The intent to audit courses is to review course information to enhance one's proficiency in the curriculum.

Active MBKU students may audit a course only with the Instructor of Record's (IOR) and Program's consent. Students may not audit a course if they have not completed the prerequisites or if they have previously failed the course. Student participation is at the discretion of the IOR. Enrollment status in that course may not be modified (i.e., changing from auditing the course to receiving credit for the course). Audited courses will not be printed on the transcript.

To audit a course, students must meet the following eligibility criteria:

- The student must be an active student with the University. If the student is on Withdraw with Intent to Return (WIR) or Leave of Absence (LOA), then the student is still considered an active student with the University. Students are not eligible to audit classes if they have been suspended, dismissed, or expelled for academic or disciplinary reasons.
- The student must have completed all required prerequisites.
- The audit request must be approved by the Program and IOR.

To audit an eligible course, the student must complete the Audit Form & submit to Registration & Records at [registrar@ketchum.edu](mailto:registrar@ketchum.edu) for approval. There is no fee for auditing courses.

## Course Delivery Method Definition

A course may be classified as a distance education course, a hybrid education course, or a face-to-face education course and the "principally" will be interpreted as 70–75% or greater.

- A distance education course is offered principally by distance delivery methods.
  - Distance delivery means that the student and instructor are not both physically present at the same time and place. Examples are course activities offered through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing.
- A face-to-face education course is offered principally by face-to-face delivery methods.
  - Face-to-face delivery means that the student and instructor are both physically present at the same time and place.
- A hybrid education course is one in which there is a blend of distance delivery and face-to-face delivery methods. The course meets neither the distance education nor the face-to-face definition.

## Course Drop and Withdraw Policy

Due to the nature of the curriculum, students do not have the option of dropping or withdrawing from courses in the required curriculum. The Program may drop or withdraw students from a course.

Students may, with special permission, drop or withdraw from an elective course determined by program policy. Please note, COP does not allow students to withdraw from elective coursework because they are a degree requirement. The Program will alert its students of the electives offered and will notify the Registration and Records Office of the elective courses and student enrollment. Once the Registration and Records Office has received notice from the Program, the student is considered enrolled in the course,



regardless of when the course starts. If the student wishes to drop the course, the student is required to contact the instructor and obtain the necessary approval. Program policies will determine if the student will be allowed to drop the elective course and will designate if the drop is permitted and if it is to be recorded as a “drop” or “withdraw.”

A “drop” means the student is no longer enrolled in the course and there is no indication of registration on the student’s transcript. A “withdraw” means the student is no longer enrolled in the course; however, the course is on the student’s transcript and a “W” is noted in place of a grade, indicating the student withdrew from the course. This does not affect a student’s GPA.

Per University policy, no student may drop an elective course after the 2nd week in the quarter and no student may withdraw from the course after the 10th week in the quarter, unless the student is withdrawing from the University.

## **Elective Curriculum**

Electives provide options to enhance student learning and allow for more individualized (self-directed) professional development. Some Programs may require completion of a certain number of elective courses to complete degree requirements. Elective courses have administrative requirements for development and delivery that include both minimum and maximum enrollment numbers and early registration dates. Generally, students apply to the course instructor for approval/admittance into an elective course. The Registration and Records office will enroll approved students into elective courses.

Students that complete an elective course will receive a grade on their transcript. Grades may be pass/fail or a letter grade, with the course instructor determining the grading criteria. Elective courses can only use one grading modality (i.e., the instructor cannot grade some students on a P/F basis and other students on a letter-graded basis). No credit for auditing a course is available. Credit hours acquired during the completion of elective courses will add into the cumulative units in the Program. Failing grades may/may not affect the student’s Cumulative Grade Point Average (CGPA), depending on whether the elective was given as a P/F or letter-graded course.

General admittance criteria:

- Programs may require students to be in good academic standing to enroll in optional elective coursework. In addition, individual instructors may set specific GPA standards.
- Prerequisites are determined by individual faculty and may include (but are not limited to) general course grades, course grades in an individual track and student motivation (possibly assessed by a statement of interest and/or an interview).

## **Emergency Contact and Address Update**

Every student must update an “Emergency Contact Information” form and “Student Address Update Form” within the first two weeks of fall quarter each year whether the information changed or not; however, if the information changes during the year, it can also be updated on the online form tab of the portal.

## **Enrollment Status**

Professional program students enrolled in 10 or more credit hours per quarter are considered full time. For a Master of Science in Vision Science, eight or more credit hours per quarter is considered full time. For an international program (Master of Science in Clinical Optometry), eight or more credit hours per semester is considered full time.

## **Examination Review Policy**

Examinations are a part of a student’s record (see Education Records); therefore, students have access to review their examinations. Students must follow the procedures outlined by their respective program and/or faculty instructor for the course. In general, students are expected to attend examination review sessions if they are offered by a faculty member. If a formal exam review is not offered, students may schedule an appointment with the faculty member to review the examination. It is expected that students will not copy or replicate any part of the examination. Nor will students distribute any information from the examination to other students either in the form of actual test questions or in the form of tips or study guides. Any such action is considered a violation of the Student Code of Conduct. It is expected that faculty will make reasonable appointments available to students and allow students ample time to review their examinations in their entirety. Examination review provides students an opportunity to learn from their mistakes. While asking for explanations is expected, it is not appropriate to challenge the validity of the question. Appeals on exam questions should follow the Program-specific appeals process.

## **Extended Absence**

During academic/clinical careers, a student may need to take a leave from studies for a variety of reasons. There are two types of extended absences: 1) Withdraw with Intent to Return (WIR); and 2) Leave of Absence (LOA). A WIR or LOA must be requested in writing to the Program Dean/Director. Notification is required at least one month prior to a planned absence and must include the reason for the time away and the dates involved. In the case of unforeseen circumstances, for example a personal or family emergency,

the student must submit a request in writing as soon as they are able to do so (See the “Application for Leave of Absence” and “Application for Withdraw or Withdraw with Intent to Return” on the portal).

Depending on the Program curriculum, extended absences during the didactic portion may result in a student sitting out the entire year until the time when those courses are taught again. Extended absences during the clinical portion may occur for a minimum of one clinical rotation. Requirements for graduation differ by Program including examination policies, remediation and deceleration policies and training time requirements. Therefore, the allowable time away from school must meet the appropriate time requirement set by each Program. Please consult your Program Student Handbook and Student Affairs professional.

Tuition will be prorated according to the Tuition Refund Policy. Unless expressly prohibited by the University in writing, students on extended absences generally may retain their Student ID/Access Card, University email and access to online resources and the library. There will be a notation on their transcript of the begin and end date of extended absences. Copies of completed application will be sent to Financial Aid, Student Accounts, Library, Campus Safety and to other critical offices as appropriate. International students (F-1 Visa holders) planning on extended absences must speak with a Designated School Official regarding their visa status.

### **Attendance at Congresses, Conferences & Extracurriculars**

During the academic year there are several congresses, conferences and other extracurricular meetings and events. If a student desires to attend any of these functions during scheduled classes or clinic assignments, the student must obtain prior permission in writing according to protocol outlined in the respective Program Handbook. The responsibility for making up missed assignments, lectures, tests, labs, etc. lies completely with the student.

### **Medical Extended Absence Policy**

MBKU is committed to the health, safety, and well-being of our campus community. Students that experience situations that significantly limit their ability to function successfully or safely should consider requesting an extended absence leave of absence. An extended leave of absence permits students to take a break from the University and their studies, so that they may address the issues that led to the need for the extended absence and later return to the University to achieve their educational goals.

The policies and procedures described below establish a process for the voluntary and involuntary medical extended absence of MBKU students for mental or physical health reasons. The procedures also provide guidance for requesting return after being away from MBKU on a medical extended absence.

MBKU provides equal access to all participants in University processes, including students with disabilities. Students with disabilities should contact Disability Services to request accommodations. Information about support services and appropriate documentation for accommodations are located on the Portal.

Voluntary and involuntary student medical extended absence decisions are made by the respective Dean/Director or their designee; however, Student Disability Services evaluate medical and other relevant documentation and recommends to the respective Dean/Director, either eligibility for voluntary extended absence, or in the case of involuntary extended absence, recommends such action be undertaken. Information from academic departments, faculty and the Campus Assessment, Response, and Evaluation (CARE) Team will be incorporated in the process as applicable. In addition, students will be informed of the resources of Student Disability Services.

A student on voluntary or involuntary medical extended absence may not attend classes or clinic at MBKU, perform research at MBKU, work at MBKU, participate in student life or other campus events or utilize other MBKU facilities. Unless expressly prohibited in writing, students on leave generally may retain their MBKU email account. Voluntary and involuntary medical extended absences are noted on the student transcript as a Withdraw with Intent to Return or Leave of Absence depending on the length of the absence. Consistent with MBKU’s Tuition Refund Policy, students who leave the University before the end of a term may be eligible to receive refunds of portions of their tuition (see University Catalog) based on the type of extended absence. Nothing in this policy relieves a student of any financial obligations to the University that were in place prior to the Medical Extended absence.

Medical extended absence is not intended to be a way of shielding a student from unsatisfactory progress or any other academic concern. In addition, a medical extended absence may not be used when disciplinary or other academic responses are appropriate, and the student’s circumstances should be addressed through those responses.

At any time during the leave process, the Vice President for Enrollment and Student Services may notify a student’s parent, guardian, emergency contact, or other individual, consistent with the law, if notification is deemed appropriate.

### **Voluntary Medical Extended Absence**

#### *Criteria*

A voluntary extended absence may be granted when a decision is made that, due to mental or physical health reasons, a student is unable to participate in campus life, including but not limited to an inability to complete or make satisfactory progress toward academic requirements.

### *Process*

Any student may make a request for a voluntary medical extended absence. Appropriate medical documentation shall be provided for such a request, and this should be done in consultation with Student Disability Services. Medical extended absence requests by a student should be made to the Disability Services Coordinator, who shall facilitate the review of such requests with the Dean/Director or their designee.

### **Involuntary Medical Extended Absence**

#### *Criteria*

Where current knowledge about the individual's medical condition and/or the best available objective evidence indicates that a student poses a significant risk to the health or safety of a member of the University community, where a student is unable or unwilling to carry out substantial self-care obligations and poses a significant risk to their own safety not based on mere speculation, stereotypes, or generalizations, or where a student's behavior severely disrupts the University environment and the student does not want to take a voluntary leave, the CARE Team has the authority to place a student on an involuntary leave of absence.

In addition, a student may be placed on involuntary extended absence for medical reasons if a student does not cooperate with efforts deemed necessary by MBKU to determine if the student poses a significant risk to the health and/or safety of self or others. Before placing any student on an involuntary extended absence, the CARE Team, will conduct an individualized assessment, also considering if there are reasonable accommodations that would permit the student to continue to participate in the University community without taking an extended absence. When possible and appropriate, reasonable efforts shall be made to allow a student to take a voluntary extended absence under appropriate procedures before placing a student on involuntary extended absence status.

#### *Process*

A representative from the CARE Team will issue a notice to the student in writing that an involuntary extended absence of absence is under consideration. The written notice will include the reason(s) why the student is being considered for an involuntary extended absence, contact information for Disability Services, which can provide information about accommodations, and a reference to this policy. In the written notice, the student will be encouraged to respond before a decision regarding an extended absence is made and will be given a specified time within which to do so. The CARE Team will determine if a student meets the criteria of an involuntary extended absence using risk rubrics, individualized assessments, and consultation from CARE Team members, including the Director of Student Counseling Services and the Student Disability Services Coordinator/Assistant Coordinator. The CARE Team may consider information from the student's healthcare provider(s) regarding issues relevant and appropriate to the circumstance.

All information gathered will be used to understand the nature, duration, and severity of the risk or disruption; the probability that the risk or disruption will actually occur; and whether reasonable modifications of policies, practices, or procedures will adequately mitigate the risk or disruption so as to eliminate the need for an involuntary leave of absence.

The decision to place a student on involuntary leave status shall be provided in writing to the student (after notifying the student's Dean/Director and the University President). The written notice shall include an explanation of the reasons for placing a student on involuntary leave status (and the information relied upon), the details of the leave and the conditions for requesting return. The written notice of decision will include information about the student's right to appeal and to reasonable accommodations during the appeal process. The review and notice of decision under this policy should be done in a reasonably timely manner. Where students have been asked to remain away from the University while the review is underway, every effort will be made by the CARE Team to reach a decision within one week, provided the student responds in a timely manner to requests for information and, if appropriate, evaluation.

If an involuntary leave of absence is not imposed. The CARE Team may impose conditions and/or requirements under which the student may remain at the University.

In situations involving an imminent or ongoing threat of harm to the student or any other member of the University community, the CARE Team, in the exercise of their reasonable judgment, may require a student to be immediately prohibited from entering campus or facilities utilized for University programs or activities while the individualized assessment and review are taking place. Such students will receive written notice as quickly as possible.

#### ***Process for Appeal of Decision***

A student who is placed on involuntary medical leave may write to the Vice President for Academic Affairs (VPAA) or designee to seek a review of the decision. The decision is in effect despite a request for review of the decision. To be timely, the VPAA should receive any such request for review within five business days of the decision, unless they agree to accept a late review request due to exceptional circumstances.

The written request for appeal must specify the substantive and/or procedural basis for the appeal and must be made on grounds other than general dissatisfaction with the decision of the CARE Team. The review by the VPAA will be limited to the following considerations:

- Lack of proper facts and criteria used for the decision
- New information not previously available to the student that may change the outcome of the decision-making process
- Procedural irregularities that materially affected the outcome of the matter to the detriment of the appellant
- Given the proper facts, criteria, and procedures, the decision was not reasonable

The VPAA shall review the student's appeal and may affirm, overturn, or modify the decision within ten business days from the date of receipt of request for review or an agreed extended time. The VPAA may meet with the student if needed or may consult with anyone that they determine is reasonable to review the appeal. The VPAA's decision shall be communicated to the student in writing and shall be considered final and no other appeals or grievance procedures are available.

### **Process for Requesting Return**

A student who has been on voluntary or involuntary medical extended absence and who wishes to request to return should provide appropriate documentation to comply with any conditions of the return process including documentation of ongoing treatment to address the specific medical reasons that supported the medical leave. Both the status of the mental and physical health of the student and their ability to resume full time participation in campus academic and student life are central to the determination whether the student may be approved to return. Successful follow-through on recommendations made in the notification of medical leave decision may weigh heavily in the consideration of the student's request to return. The decision whether to approve a student's request to return shall be made after evaluating relevant documentation and shall be within the sole discretion of the Dean/Director of the Program, in collaboration with the MBKU CARE Team. After review, the CARE Team or Dean/Director may require additional conditions for return.

Generally, a student will not be allowed to return until one full quarter has elapsed or until the leave period in the involuntary extended absence of absence notification has elapsed, and all conditions and/or requirements are met. Given the nature of the curriculum, students may need to remain on extended absence until they can re-enter the curriculum.

All returning students must meet the essential eligibility requirements and any technical standards of the University and the relevant Program, with or without reasonable accommodations. Students returning from a voluntary or involuntary medical extended absence are encouraged to meet with the Student Disability Services Coordinator to discuss reasonable accommodations.

A student who has been on voluntary or involuntary medical extended absence for more than two years may be considered withdrawn from the Program. If a student seeks to return after two years, the student should reapply for admission to restart the Program.

If the Program Dean/Director is not satisfied that the student is ready to return to the University, the student will be notified in writing of the decision, including the reason for the decision, within a reasonable time after the student has submitted a request for re-enrollment and required documentation. A student not permitted to return may appeal the decision to the VPAA.

### ***Process for Appeal of Decision***

A decision not to approve a student's request to return may be reconsidered only if substantial new information has become available after the decision has been made. A request for reconsideration along with the new information should be submitted to the VPAA and the student's Program committee on academic standing/progress may reconsider the decision.

### **Personal Leave of Absence (LOA)**

Students may apply to take a Leave of Absence (LOA) from the Program for a specific time providing that it does not involve more than 180 days, including holidays and educational breaks, within a 12-month period. The LOA must be requested in writing, to the Dean/Director or the designee of the Program, no later than one month prior to the start of the LOA in the case of a planned event and must include the reason for the LOA as well as the dates involved. In the case of unforeseen circumstances, for example, an accident or emergency medical condition, the student must request the LOA in writing as soon as they are able to do so. Generally, reasons for a LOA are due to personal issues or medical conditions and not for academic reasons.

Extension to an approved LOA may be requested from the Dean/Director or the designee of the program if the request to extend is received prior to the LOA end date and the request does not extend the LOA beyond 180 days. If the extension request is denied and the student does not return by the approved date, then the student will be considered Withdrawn with Intent to Return (see below) or Withdrawn depending on the situation.

Students on a LOA during the clinical portion of their Program may not see patients during the specified LOA. Each Program has different procedures and allowances regarding short-term leaves. Please refer to the respective Program Student Handbook.

In addition, students may or may not receive financial aid during the time of the LOA. Students who meet the criteria for the LOA are not considered to have withdrawn from the Program for loan repayment purposes and their student loan repayment/grace status may not be impacted.



## Unapproved Withdraw

Any student who is absent for more than two weeks without submitting a written request in accordance with the regulations for a LOA or WIR, will be considered to have withdrawn from the Program. As an unexcused/unapproved withdrawal, the student may forfeit any rights to return to the Program pending administrative decision.

## Withdraw with Intent to Return (WIR)

Students who need to leave their studies may request a Withdrawal with Intent to Return (WIR). The student must request the WIR in writing to the Dean/Director or the designee of the Program and if approved, the student will be permitted to return. A student who has been on a WIR may request additional time away from their Program, however it does require Program approval.

Students who are on academic probation at the time they elect to take a WIR may have their conditions for re-admittance reviewed by the Program's academic standards committee prior to readmission. Students who are dismissed for academic reasons and given the right to return are on a WIR.

Students who are on a WIR are in a non-enrollment status and will not be eligible for financial aid or in-school status. During this time, the student will not be enrolled, and their student loans will enter repayment/grace status effective with the date they left the Program/University. All students on a WIR will be eligible for financial aid when they return to the Program, provided they are enrolled at least half-time and are meeting Satisfactory Academic Progress (SAP) standards.

## Grading

Abbreviated course descriptions are presented in this Catalog. At the start of each course, students are provided a course syllabus indicating the course objectives and goals, a listing of required and recommended readings, the methods used, and examination given to assess learning and grading policies and a statement of classroom attendance requirements. Please note, examination policies differ by program. Students should refer to their respective Program Student Handbook.

## Course Failures

All course failures in required coursework must be successfully remediated or repeated according to the student's Program policy for program progression.

- **Remediation**

Students receiving an F grade must satisfactorily repeat the course or a remediation program. Successful completion of a remediation program will result in a grade change of FP, FC, or FD, depending on the Program (see Program Student Handbook).

- **Repeated Courses**

The initial grade of F remains on the student's record and the repeated course grade earned will also be on transcript. Both credit hours and grades are computed in the grade point average.

## Deadline for Final Grades and Grade Changes

Final course grades must be submitted to the Registration and Records Office by the course instructor no later than one week (7 calendar days) after the end of the quarter. All changes of a final grade after this time must be submitted by the course instructor within thirty (30) days of posting of grades by the Registration and Records Office. The exception to this rule is in the case of course remediation completion (see Program Student Handbook for details on course remediation, if offered). Change of Grade Request Forms must be filed by the course instructor.

## Grade Definitions

A student's grade point average (GPA) is determined by dividing the total number of grade points earned by the total number of units attempted. No grade points are assigned for courses that were incomplete, courses audited by the student or any Pass coursework. If a course is taken more than once, the original grade remains on the student's record; both units and grades are computed in the GPA. However, the newer grade is the standing grade used to determine requirement completion.

Definitions of other grades/notations used:

- "Audit" indicates that a student was granted permission to attend lectures in a class for no credit. Students may not audit laboratories or clinical assignments.
- An "incomplete" indicates that assignments have not yet been completed. It does not refer to the adequacy of the performance.
- The student's Program determines if course remediation is an option for the student. Successful completion of a remediation will result in a grade change to FP, FC or FD (see Program Student Handbook). A fee to remediate deficiencies and for make-up examinations may be charged.
- "Pass" indicates credit given for satisfactory completion of a pass-fail course.

- “High-Pass” indicates credit given for outstanding competency completion of a pass-high-pass-fail course, typically a clinical course.
- Some courses are taken over the course of a year, thus repeated each quarter. These In-Progress courses will be designated by an “IP” until the final course is completed.
- “Withdraw” indicates that the student withdrew from the course.

### Grade Disputes

All course instructors are expected to publish their grading criteria at the beginning of the course and to notify students if there are changes during the course. A student with a grade dispute should seek satisfactory settlement with the instructor teaching the course. If this is not successful, they may follow the Student Grievance Policy and Procedures listed in the University Student Handbook.

### Grade Posting

The University does not permit unauthorized disclosure of grades. Official course grades may be accessed via the [My Records Tab](#) of the portal.

### Grading System

The following grades are used:

Grade	Grading Points	Symbols
A	4.0	AS Advanced Standing
A-	3.7	AUD Courses Audited without Credit
B+	3.3	E or I Incomplete
B	3.0	FC, FD or FP Remediated Failure
B-	2.7	HP High Pass
C+	2.3	IP In-Progress Course
C	2.0	W Withdraw
D	1.0	
F (Failure)	0.0	
P (Pass)	0.0	
FC	2.0	
FD	1.0	
FP	0.0	

### Incomplete Grade

An incomplete grade indicates that assignments have not yet been completed. It does not refer to the adequacy of the performance. An incomplete grade for failure to complete assignments must be removed at a time designated by the instructor of record; but no later than three weeks following the completion of the quarter or it will automatically be changed to failure unless an extension is granted by the Program Dean/Director. A student receiving an incomplete grade in a clinical course may have the completion of the work deferred for a period longer than three weeks subject to the written approval of the instructor of record.

### Repeating Coursework or Modified Curriculum

Students, either electing with permission or directed to repeat coursework previously taken and successfully completed with a passing grade of “pass” or a “C” or better, will be enrolled as repeating the course. The course will appear on the transcript and a grade will be recorded. While both grades will remain on the transcript, the newer grade will be considered the standing grade used to determine requirements for graduation. Even if a previous attempt was a passing grade, if a subsequent attempt results in failure, the F grade stands as the current grade for the course.

All students on a modified program are required to have a signed agreement on file with University Student Affairs.

### Teach Out Policy

In accordance with 34 CFR 602.24(c) of the Secretary’s Recognition of Accrediting Agencies from the Department of Education, the MBKU Teach Out Policy is designed to protect the interests of all students. In the unlikely event of a Program closure or loss of

accreditation, the University has resources in place to ensure that each Program can complete the education for each student who has formally matriculated into the Program. Should a Program be discontinued, the University and Program's accrediting agency shall develop a Teach Out Plan/Agreement which should allow each matriculated student to complete the respective Program of study.

# STUDENT RECORDS POLICIES AND PROCEDURES

In compliance with Section 438 of the “General Education Provisions Act” (as amended) entitled “Family Educational Rights and Privacy Act (FERPA),” the following constitutes the institution’s policy which instructs the student in the procedures available to provide appropriate access to personal records and seek amendment to those records, while protecting the privacy rights of students.

## Terms Defined

For the purposes of this policy, MBKU uses the following definitions of terms.

1. Student – any person who is or has attended MBKU and whose records are in the files maintained by the University. Attendance begins with the first day of classes of the first professional year.
2. Education record – any document (records, files, emails, and other material) maintained by MBKU or an agent of the University, which is related to a student, except:
  - a. A personal record maintained by a staff member if it is kept in the sole possession of the maker of the record and is not accessible or revealed to any other person except a temporary substitute for the maker of the record. Records in the sole possession of instructional, supervisory, and administrative personnel (e.g., advising notes).
  - b. An employment record of an individual, whose employment is not contingent on the fact that the individual is a student, provided the record is used only in relation to the individual's employment. Records of employees who are not also in attendance.
  - c. Records maintained by MBKU's Campus Safety Office, if the record is maintained solely for law enforcement purposes, is revealed only to law enforcement agencies of the same jurisdiction, and the Unit does not have access to education records maintained by MBKU.
  - d. Records maintained by the University Eye Centers if the records are used only for medical treatment of a student and made available only to those persons providing the treatment.
  - e. Physician, psychiatrist, or psychologist treatment records for eligible students.
  - f. Alumni records which contain information about a student after the student is no longer in attendance at MBKU and which do not relate to the person as a student.

## Annual Notification

1. Students are notified of their FERPA rights annually by publication in the MBKU University Catalog;
2. Students are provided with an annual notification of FERPA rights via email and posted announcement on the MBKU online portal; and
3. FERPA brochures are in a variety of public places on campus and electronically within the MBKU online portal.

## Directory Information

MBKU designates specific items in the student record as Directory Information. The University may disclose any of these items without prior written consent, unless the student notifies the University by emailing the completed “FERPA Information Disclosure Update” form to [registrar@ketchum.edu](mailto:registrar@ketchum.edu).

Category I includes Directory Information that may appear in University and Program publications (e.g., White Coat Ceremony and Commencement programs):

- Student name
- Degree program
- Graduating Class Year
- Degrees and awards earned
- Hometown/state
- Participation in officially recognized activities

And Directory Information that may be shared within the MBKU community:

- Address
- Telephone number
- University email address
- Student ID number
- Degree program
- Awards received
- Dates of attendance
- Enrollment status (full or part time enrollment)



- University ID photo

Category II includes photographs taken on-campus or at officially recognized MBKU events. These may appear on the University website, University social media platforms and other print and non-print University communication materials (See “Student Photographs at Campus Events” policy).

### ***Release of Student Names***

To protect the privacy of its students, it is the policy of MBKU not to release the names of students to any outside organizations. Any organization wishing to distribute materials to students may submit copies to the respective Program administrator. Students do not have on-campus mailboxes so any viable materials/documents will be posted online for student viewing and/or added to publicly viewed campus bulletin boards.

## **Disclosure**

1. MBKU will disclose information from a student's education record only with the written consent of the student. The written request must include specification of the records to be released, purpose of disclosure and party to whom disclosure may be made. The “Enrollment and Degree Verification Form” is found on the portal. Unofficial copies of records may be provided to the student in cases where the purpose of the disclosure and/or the party to whom disclosure is to be made are not provided.

The “Recommendation Release Form” is also found on the portal. This form is completed and submitted by a student prior to any MBKU faculty or staff submitting a recommendation on their behalf. On the form, the student will indicate which types of non-directory information to include in the recommendation, along with waiving or retaining their right to review the recommendation submitted by the faculty/staff member. After submission, the form is automatically sent to the student, faculty/staff member and the MBKU Registrar. Once received, the faculty/staff member is permitted to write a recommendation for the respective student.

2. Information may be released without the student’s consent in the following instances:
  - a. School officials who have a legitimate safety and/or educational interest in the records. The determination of a “legitimate need to know” will be made by the person responsible for the maintenance of the record based on the criteria below.

A school official is:

- A person employed by the University in an administrative, supervisory, academic, research or support staff position.
- A person elected to the Board of Trustees.
- A person employed by or under contract to the University to perform a special task, such as the attorney or auditor.

A school official has legitimate safety and/or education interest if the official is:

- Performing a task that is specified in their position description or by a contract agreement.
  - Performing a task related to the student’s education.
  - Performing a task related to the discipline of the student.
  - Providing a service or benefit relating to the student or student’s family, such as health care, counseling, job placement or financial aid.
- b. Officials of another school, upon request, in which a student seeks or intends to enroll.
  - c. Certain officials of the U.S. Department of Education, the Comptroller General and state and local educational authorities, in connection with certain state or federally supported education programs.
  - d. In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount, or conditions of the financial aid or to enforce the terms and conditions of the aid.
  - e. If required by a state law requiring disclosure that was adopted before November 19, 1974.
  - f. Organizations conducting studies for or on behalf of the University making the disclosure for the purpose of administering predictive tests, managing student aid programs, and/or improving instruction.
  - g. A school official with legitimate access to student records may strip the records of any identifying information and provide the data to a researcher to use for research-related purposes. Aggregate data from student records may be used in publications (no individual student record will be shared without written consent).
  - h. Accrediting organizations to carry out their functions.
  - i. Parents of an eligible student who is a minor (under the age of 18).
  - j. Complying with a judicial order or a lawfully issued subpoena.

- k. Appropriate parties in a health or safety emergency.
  - l. An alleged victim of any crime of violence of the results of any institutional disciplinary proceeding against the alleged perpetrator of that crime with respect to that crime.
3. Identifiable information, such as name or social security number, will not be used for posting of grades or results of academic achievement. Individual instructors may assign an identification number unique to their course for the purpose of posting student grades.
4. The University reserves the right to refuse to provide copies of materials received as part of the admissions process (other college or high school transcripts or letters of recommendation) to a third party.
5. MBKU will maintain a record of all requests for and/or disclosure of information from a student's education records. The record will indicate the name of the party making the request, any additional party to whom it may be disclosed and the legitimate interest the party had in requesting or obtaining the information. The record may be reviewed by the parents if the student is a minor or has signed a FERPA waiver.
6. Documents submitted as part of the admissions process are the property of the University and will not be returned. In accordance with AACRAO guidelines, the University separates the academic, disciplinary and health records of students. Transcripts contain information about academic status and some disciplinary notes (see Code of Conduct). Information from disciplinary or counseling files are not available to unauthorized persons on campus, or to any person off campus without the expressed consent of the student involved except under legal compulsion or in cases where the safety of persons or property is involved. No records are kept which reflect the political activities or beliefs of students. Administrative staff and faculty members should respect confidential information about students which they acquire in the course of their work.

## Education Records

The following is a list of the types of records the University maintains, their locations and custodians:

Type of Record	Location	Custodian
Academic Progress	Program	Academic Affairs
Admissions	Admissions	Admissions
CARE Team Case Notes	University Student Affairs	CARE Team Committee
Cumulative Academic Records	University Student Affairs	Registration & Records
Financial Aid	Financial Aid	Financial Aid
Health Records	Ketchum Health	Clinic Directors
Disability Records	University Student Affairs	University Student Affairs
Student Conduct	University Student Affairs	Student Conduct Designee
Student Finances	Student Accounts Services	Student Accounts
Title IX Records	University Student Affairs	Title IX Designee

1. Students may inspect and review their records upon request to the FERPA Compliance Officer or appropriate record custodian. This includes quizzes, exams, and other graded materials. Each Program maintains their own policies as to how and when a student may view graded materials.  
 A student should submit to the FERPA Compliance Officer, or an appropriate University employee, a written request which identifies as precisely as possible the record or records the student wishes to inspect. The FERPA Compliance Officer, or appropriate employee, will make the needed arrangements for access as promptly as possible and notify the student of the time and place where the records may be inspected. When a record contains information about more than one student, the student may inspect and review only the records which relate to the student.
2. MBKU reserves the right to refuse to permit a student to inspect the following records:
  - a. the financial statement of the student's parents;
  - b. letters and statements of recommendation for which the student has waived their right of access, or which were placed in the file before January 1, 1975;
  - c. records connected with an application to attend MBKU if that application was denied; AND/OR
  - d. those records which are excluded from the FERPA definition of "education records."
3. MBKU reserves the right to deny copies of records not required to be made available by FERPA in any of the following situations:
  - a. the student lives within commuting distance of MBKU;

- b. the student has an unpaid financial obligation to the MBKU;
  - c. the student has defaulted on any loan owed to MBKU; AND/OR
  - d. an unresolved disciplinary action against the student.
4. The fee for copies of records will be 50 cents per page.

## Correction of Records

Students have the right to ask to have records, other than course grades, corrected that they believe are inaccurate, misleading or in violation of their privacy rights. The procedures for the correction of records are listed below.

1. A student may ask the FERPA Compliance Officer to amend a record. The student should identify the part of the record they want changed and specify why they believe it is inaccurate, misleading or in violation of their privacy or other rights.
2. The FERPA Compliance Officer may or may not comply with the request. If it decides not to comply, the FERPA Compliance Officer will notify the student of the decision and advise them of their right to a hearing to challenge the information believed to be inaccurate, misleading or in violation of their rights.
3. Upon request, the FERPA Compliance Officer will arrange for a hearing and notify the student, reasonably in advance, of the date, place, and time of the hearing.
4. The hearing will be conducted by the FERPA Compliance Officer, unless the FERPA Compliance Officer has a direct interest in the amendment. The student shall be afforded a full and fair opportunity to present evidence relevant to the issues raised in the original request to amend the student's records.
5. The FERPA Compliance Officer will prepare a written decision based solely on the evidence presented at the hearing. The decision will include a summary of the evidence presented and the reasons for the decision.
6. If the FERPA Compliance Officer decides that the challenged information is accurate, not misleading, or in violation of the student's right of privacy, it will notify the student that they have a right to place in the record a statement commenting on the challenged information and/or a statement setting forth reasons for disagreeing with the decision.
7. The statement will be maintained as part of the student's education records if the contested portion is maintained. If MBKU discloses the contested portion of the record, it must also disclose the statement.
8. If MBKU decides that the information is inaccurate, misleading, or in violation of the student's right of privacy, it will amend the record and notify the student, in writing, that the record has been amended.

Students who believe their rights have been abridged may file a complaint with the Family Policy Compliance Office of the U.S. Department of Education at:

Family Policy Compliance  
 U.S. Department of Education  
 400 Maryland Avenue SW  
 Washington, D.C. 20202-5901

## Record Retention Policy

It is the policy of MBKU to record academic information (e.g., course registration, final course grades, etc.) in a data management system (i.e., Jenzabar). A file may be created during enrollment to store academic records (e.g., University correspondence, academic standards letters, disclosure requests, etc.). Most of these records are retained for 5 years after graduation or departure from the University. However, transcripts, grade change forms and dismissal letters are kept permanently. Please see the Student Record Retention Schedule table below for additional information.

Student Record Retention Schedule for enrolled students:

Type of Record	Retention Schedule	Destruction/Storage	Responsible Party
Admissions Record	5 years post-graduation/departure	Shred/Purge electronically	Admissions Personnel
Academic Record	5 years post-graduation/departure	Shred/Purge electronically	Registration and Records
Health Records	5 years post-graduation/departure	Shred/Purge electronically	Clinic Directors
CARE Team Case Notes	Upon graduation	Shred/Purge electronically	University Student Affairs
Disciplinary Record	3 years post-graduation/departure	Shred/Purge electronically	University Student Affairs
Title IX Record	7 years post-graduation/departure	Shred/Purge electronically	Title IX Coordinator
Financial Aid	4 years post-graduation/departure	Shred/Purge electronically	Financial Aid

## FINANCIAL AID POLICIES

Student financial aid includes all resources used to finance education (other than those provided directly by students and their families). It includes scholarships; grants; work-study; and Federal, private, and institutional educational loan programs.

For general and program-specific Financial Aid information, visit the Financial Aid tab of the MBKU portal.

In packaging financial aid, MBKU does not discriminate on the basis of race, color, national origin, sex, disability, or age.

### Contact Information

<b>Email</b>	<a href="mailto:financialaid@ketchum.edu">financialaid@ketchum.edu</a>	<b>FAFSA School Code</b>	001230
<b>Phone</b>	714.449.7448	<b>Address</b>	Marshall B. Ketchum University ATTN: Financial Aid 2575 Yorba Linda Blvd. Fullerton, CA 92831-1699
<b>Location/Hours</b>	MBKU Fullerton Campus, Building D #226 Monday - Friday 8:00 A.M. - 5:00 P.M.		

### Eligibility and Application Process

Financial aid is packaged on an annual basis. Students must apply for financial aid each academic year of attendance by submitting the Free Application for Federal Student Aid (FAFSA) at [studentaid.gov](http://studentaid.gov) (School Code: 001230).

### Satisfactory Academic Progress (SAP)

The U.S. Department of Education requires all universities to develop and enforce an internal system to monitor the academic progress of financial aid recipients. A student must maintain Satisfactory Academic Progress in order to remain eligible for all financial aid programs, including student loans. The academic progress of financial aid applicants and recipients is reviewed upon initial application to the University and then annually, following spring quarter each year.

#### SAP Standards

MBKU's SAP policy contains three components students must meet to maintain eligibility for financial aid:

**1. Minimum Cumulative Grade Point Average (GPA)\***

SCCO Students must maintain a *minimum* cumulative GPA of 2.5 or higher

College of Pharmacy students must maintain a *minimum* cumulative GPA of 2.0 or higher

*\*Students enrolled in the School of Physicians Assistant Studies are graded on a pass/fail basis and as such are not measured for SAP on GPA.*

**2. Unit Completion Rate**

All students must complete with a passing grade 100% of their attempted units each academic year. All courses a student is enrolled in beyond the add/drop period will be counted as units attempted, including, withdrawals, no credit, and incomplete courses. For those programs that allow students to remediate a failing grade, the remediated failing grade will count as passing, for the purposes of MBKU's SAP policy.

**3. Maximum Time Frame**

Students must complete their educational program within 125% of the minimum number of curriculum units required to complete their degree. Example: a program requires 100 units minimum to graduate, students may receive financial aid for up to 125 units.

All quarters of enrollment (including summer) will count toward the maximum time-frame as well as any transfer credits (if applicable), including enrollment in terms in which no financial aid is received.

#### Financial Aid Disqualification

Students who fail to meet any of the above minimum standards of the financial aid SAP Policy are no longer eligible to receive financial aid at MBKU. Student's may appeal their disqualification; see the Appeal Process section, below.

#### Regaining Financial Aid Eligibility

Students who have lost eligibility for financial aid due to not meeting the University's SAP standards can be reinstated by successfully completing sufficient units to again meet all university SAP standards. SAP is evaluated for all students at the end of spring quarter. If



a student believes they have regained eligibility prior to the posting of spring grades, the student should contact Financial Aid, [financialaid@ketchum.edu](mailto:financialaid@ketchum.edu) to be considered for reinstatement.

### **Appeal Process**

If extenuating circumstances apply, students who are not meeting SAP are encouraged to appeal their disqualification. To appeal, the student must contact Financial Aid, [financialaid@ketchum.edu](mailto:financialaid@ketchum.edu).

If a student's SAP appeal is approved, they will be placed on financial aid probation during the next quarter. The student's progress will be reviewed once grades for the following quarter are posted. To continue receiving financial aid the student must be following and making positive progress on their specific academic plan for improvement. Student's remaining on financial aid probation will have their grades reviewed at the end of each quarter until they are again meeting the University's SAP standards.

### **Academic Disqualification**

Students who are academically disqualified from the University are no longer eligible to receive financial aid. A student who is academically reinstated to the university, or who is placed on academic probation, will have the conditions of their probation and academic plan reviewed by Financial Aid in order to be considered for Financial Aid reinstatement.

If you have questions regarding SAP, please contact [financialaid@ketchum.edu](mailto:financialaid@ketchum.edu).

## **Financial Aid Disbursements**

Financial Aid funds are disbursed through Student Accounts Services. The total amount of financial aid for the academic year is divided among quarters for which the student is enrolled, as reflected in the financial aid package notification.

Students must meet all eligibility requirements before financial aid is disbursed. Eligibility requirements include, but may not be limited to: being officially admitted to MBKU, enrolling in the minimum number of units for aid eligibility, maintaining satisfactory academic progress (SAP), and completing all necessary requirement documentation.

### **Notice of Disbursement and Right to Cancel Federal Loans**

Students may cancel all of or a portion of a loan disbursement within 120 days of the date your school disbursed (paid out) your loan money. If you choose to cancel the amount disbursed, you will return the money you received, and you will not be charged interest or fees. Please contact [financialaid@ketchum.edu](mailto:financialaid@ketchum.edu).

### **Exit Counseling**

Federal law requires students who borrow from the Federal Direct Unsubsidized, Federal Graduate PLUS, Federal Perkins, HPSL and/or LDS loan programs to complete exit counseling upon graduation, withdrawal, or enrollment less than half-time. Additionally, MBKU requires exit counseling for students receiving the Harris and/or Kanai institutional loans.

Whenever a student who has received financial aid graduates, drops below half-time enrollment, or leaves MBKU for any reason prior to graduating, the student must complete exit counseling. As this is a federal requirement, MBKU will withhold a graduating student's diploma until the exit counseling is completed.

This counseling provides comprehensive information on the details on the loans borrowed, how to keep the loans in deferred status if needed, and a comparison of the current federal repayment options.

## **Repeated Coursework**

Per Federal regulations, if a student wishes to repeat a course for which they have previously received a passing grade, the repeated course will be eligible to be paid financial aid for only one repeated instance.

**Example:** A student receives a grade of D in a course and chooses to take the course a second time; the units associated with the repeated course will count toward the student's financial aid eligibility for one repeated attempt only. Further enrollment in the same course beyond the first repeat are not permitted to count toward financial aid eligibility.

## **Return of Title IV Aid**

When a student withdraws from the University, the Financial Aid Office is required to calculate the amount of Title IV Financial Aid students have earned prior to withdrawing. Any Title IV Aid received beyond the earned amount is considered unearned and must be returned to the Federal Government.

This policy applies to students who take a leave of absence, withdraw, withdraw with intent to return, or are dismissed from the institution.

## Procedure for Withdrawing or Requesting a Leave of Absence

To officially withdraw from the University, a student must complete the Application for Leave, Withdraw or Withdraw with Intent to Return form, which is located on the Registration and Records tab of the student portal and receive the Program Dean or Director's approval. Students should contact [registrar@ketchum.edu](mailto:registrar@ketchum.edu) if they have any questions about withdrawing or requesting a leave of absence.

If requesting a Leave of Absence, please review the Institutional Leave of Absence Policy located in the MBKU Student Handbook.

## Definition of Title IV Aid

"Title IV Aid" is defined as federal financial aid programs authorized under the Higher Education Act of 1965. At MBKU only the following Title IV Aid Programs are subject to the return provisions of this policy:

- Direct Unsubsidized Loan Program
- Direct Graduate PLUS Loan Program

## Determining the Amount of Title IV Aid Required to be Returned

1. Student Withdrawal Date Determination
  - a. The date the student began the official withdrawal process or officially notified the University of their intent to withdraw; or if an unofficial withdrawal
  - b. The student's last date of attendance in a documented academically related activity; or
  - c. The 50% point of the period of enrollment, if a last date of attendance cannot be determined
2. Calculating the Earned Aid Percentage
  - a. The percentage of earned aid is calculated by counting the number of calendar days the student was enrolled prior to withdrawing, divided by the total number of days in the quarter (defined as the first day of classes through the last day of final exams; scheduled breaks of five or more consecutive days are excluded).
    - i. **Example:** Student withdraws on day 43 of an 82 day quarter  
 $43 \div 82 = 52.4\%$  earned aid percentage
  - b. If a student withdraws after the 60% point of the quarter, the student is considered to have earned 100% of their Title IV Aid and no adjustments will be made.
3. Calculating the Total Unearned Aid
  - a. Once the earned aid percentage is determined we then calculate the amount of unearned aid. This is done by multiplying the earned aid percentage by the total amount of aid disbursed in the quarter; and then subtracting the earned aid from the total amount of aid disbursed in the quarter.
    - i. **Example:** Student earned 52.4% of \$15,500 disbursed in the quarter.  
 $52.4\% \times \$15,500 = \$8,401$  total earned aid  
 $\$15,500 - \$8,401 = \$7,099$  total unearned aid
4. Calculating the School Return Amount
  - a. The school return amount is based on the percentage of unearned aid multiplied by the tuition and fees for the term. This is then compared to the dollar amount of the total unearned aid; and the University must return the LESSER of either the total unearned aid or total school return.
    - i. **Example:** Student earned aid is 52.4%, unearned aid amount is \$7,099, and Tuition and Fees for the quarter are \$12,500  
 $100\% - 52.4\% = 47.6\%$  unearned aid percentage  
 $47.6\% \times \$12,500 = \$5,950$  school return amount  
In this case, since the school return amount is LESS than the \$7,099 in total unearned aid, the University is required to return \$5,950 in Title IV Aid.
5. Order of Title IV Aid Return
  - a. Title IV Financial Aid is returned to the aid program from which it was disbursed.
  - b. In accordance with federal regulations, aid is returned in the following order:
    - i. Federal Direct Unsubsidized Loan
    - ii. Federal Direct Graduate PLUS Loan
6. Post Withdrawal Disbursements
  - a. In some (uncommon) cases the amount of Title IV Aid earned is greater than the total amount of Title IV Aid disbursed. In these cases, a student is entitled to a post withdrawal disbursement. As all Title IV Aid subject to this policy at MBKU consist of loan programs, post withdrawal disbursements are not automatic and would require the student to request them. Students would be notified in writing (via email) of their option to receive a post withdrawal disbursement along with instructions on how to request disbursement.

7. Timeframe and Student Notification for the Return of Title IV Aid Process
  - a. Calculation of Return of Title IV Aid: within 30 days of withdrawal
  - b. Email notification to student of required Return of Title IV Aid or Post Withdrawal Disbursement: within 30 days of withdrawal
  - c. Return of school return portion of Title IV Aid: within 45 days of withdrawal
8. Procedure for returning Direct Loan funds to the US Dept. of Education
  - a. The following steps are taken by MBKU to return Direct Loan funds that require a return:
    - i. The Financial Aid Office reports the adjusted loan amounts to the US Dept. Education via the Federal COD system. The student is notified via email of the school's required return of Direct Loan funds.
    - ii. Once these adjustments reflect correctly in the Federal COD system the funds are returned to the US Department of Education through the Federal G5 system.

### **MBKU's Responsibilities**

1. Providing students with this written Return of Title IV Aid Policy
2. Identifying and notifying students impacted by this policy
3. Completing the Return of Title IV Aid calculation within 30 days of withdrawal
4. Notifying students eligible for a Post Withdrawal Disbursement within 30 days of withdrawal
5. Returning Title IV Aid that require return to the US Dept. of Education within 45 days of withdrawal

### **Student's Responsibilities**

1. Reviewing notifications sent in accordance with this policy
2. Remitting payment for any balances on your student account that may occur due to the return of Title IV Aid
3. Repaying Direct Loans, including any student portion of unearned Direct Loan funds, in accordance with the terms of the promissory note
4. Contacting the Financial Aid Office if you have any questions about this process

## **Federal Work Study**

### **Eligibility**

Federal Work Study is a need-based Financial Aid program. Students participating in the program must be U.S. citizens, permanent residents, or eligible non-citizens; filed a FAFSA; and provided Financial Aid with all required employment documentation.

International students are not eligible for the Federal Work Study program, but they may work an on campus job a maximum of 20 hours per week.

University policy excludes students on academic or professional probation from the Federal Work Study program. Supervisors reserve the right to remove students from their respective role if not meeting pre-established academic and/or professional standards.

### **Obtaining a Federal Work Study Position**

Federal Work Study jobs and employment forms (listed below) are available on the Work Study page in the Financial Aid tab of the MBKU portal. The following two forms are required for employment and are submitted directly to Financial Aid:

#### **Form W-4**

This Internal Revenue Service form allows MBKU to withhold the correct federal income tax from your pay. Resubmit this form if you change your name, marital status, or exceptions.

#### **I-9 Form**

This is the employment eligibility verification form which is a legal required for all employment in the U.S.

### **Federal Work Study Time Sheet**

Federal Work Study students will record hours worked on an electronic timesheet through PayCom. Financial Aid will provide log-in information and instructions for submitting time sheets. If you need assistance, please contact Financial Aid, [financialaid@ketchum.edu](mailto:financialaid@ketchum.edu).

### **Direct Deposit Request Form**

To receive your Federal Work Study wages as quickly as possible, all students are strongly encouraged to sign up for direct deposit. This form is located on the Work Study page in the Financial Aid tab of the MBKU portal.

### **Federal Work Study Limits**

Students may work no more than 8 hours per day and no more than 6 consecutive workdays in a Sunday through Saturday work week. At a minimum, a 30 minute break must be taken after five continuous work hours, unless your work day is less than six hours.

Ending a Federal Work Study Position: Federal Work Study students who wish to end their employment must inform their supervisor as soon as possible. While not required, it is customary and appreciated to provide a two-week notice.

### **Professional Judgment**

Students have the opportunity to request a Professional Judgment at any point throughout the academic year if they feel they have experienced special and/or unusual circumstances that are affecting their ability to finance their living expenses at any point throughout the academic year. When requesting a Professional Judgment students are required to submit a written statement summarizing their request and providing any documentation that supports the written statement. Requests for a professional judgment can be emailed to [financialaid@ketchum.edu](mailto:financialaid@ketchum.edu).

# STUDENT ACCOUNTS SERVICES

## Billing Policies

Tuition and fees are based on enrollment status as defined by the Registrar under Academic Policies. Full-time students are charged the flat rate tuition, plus fees.

The exceptions are for Pharmacy 4th year students, Summer Quarter for Pharmacy 2nd year students and Pharmacy 3rd year students, where students are charged the flat rate tuition, per quarter, plus fees, when enrolled in at least half-time (at least 5 credits).

Part-time students are charged tuition on a per credit basis when they fall below the full-time enrollment status, plus fees.

A fee to remediate deficiencies and for makeup examination may be charged.

Please refer to the [Student Accounts](#) page on the portal for a listing of current academic year tuition and fees.

The Board of Trustees of Marshall B. Ketchum University reserves the right to change tuition and fees or to establish additional fees for special features or services if deemed necessary.

## Repeated Courses Tuition Charges

A student who is not registered full-time in the term that the repeated course is given will be charged on a per credit basis for the repeated course in addition to any other course as applicable.

## Extended Program Tuition Charges

A student whose program is extended or is required to complete clinical courses following the date of original graduation will be subject to applicable tuition and fee charges.

## Payment Policies

Full tuition and fees are due and payable by the start date of each quarter. A ten-day grace period follows. Payments received after the grace period will incur a late fee of \$50. Interest will be charged on past due balances.

A student may not proceed from one academic year to the next without having fully paid the previous year's tuition and fees. A student with a past due balance after April 30 may be prevented from registering for classes or receiving their diploma. Any exceptions must have prior approval by University Administration.

## Tuition Refund Policy

Tuition refunds are prorated according to the schedule below for students who take a leave of absence or withdraw after the quarter has begun. The effective date of a leave of absence or withdrawal is determined by the Director of Registration and International Student Services after the review of all submitted paperwork. The last day to drop courses without any obligation is before the first day of the quarter.

### Refund Schedule for Tuition in effect at the time a leave of absence or withdrawal is approved:

- Before the first day of the quarter: 100%
- During the 1st week of instruction: 90%
- During the 2nd to 3rd week of instruction: 75%
- During the 4th to 6th week of instruction: 50%
- During the 7th week of instruction: 25%
- After week 7: 0%

### Adjustment of Charges

If a student withdraws prior to the first day of classes, the student will receive a 100 percent refund of tuition.

If a student withdraws on or after the first day of classes, the student will have their tuition adjusted based on the Refund Schedule for Tuition.

### Student Association/Class Fee

This fee is charged each Fall quarter and will be refunded according to the Refund Schedule for Tuition, if the student withdraws in the Fall. There is no refund or recharge when students leave in other quarters. The fee is established and managed by the Student Association Executive Committee.



### **Mandatory Equipment and Materials Fee (COP, SCCO and SPAS)**

- Leave of Absence/Withdrawal with an Intent to Return – If equipment or materials have been distributed to the student, there will be no refund in the current quarter; The balance due on distributed equipment will be held by MBKU, if a promissory note is signed prior to the withdrawal or leave of absence.
  - When the student returns, quarterly fees will be reset to the current class year.
  - Quarterly fees may change from class to class, due to increases in costs year over year.
- Withdrawal (not returning)/Dismissed – The balance due on equipment that has been distributed will be charged to the student. Payment is due on or before the exit interview.

### **Mandatory Equipment Fee (PharmD)**

There is no refund after the first day of P1 Fall Quarter.

### **Clinic Fee (SPAS Program)**

The refund is based on the Refund Schedule for Tuition.

### **Parking Fee**

The refund is based on the Refund Schedule for Tuition.

### **Other Charges**

Other charges, such as library or parking fines are not adjusted upon withdrawal and must still be paid.

If a student reduces their number of credits below the full-time level or completely withdraws from the University after the first day of the quarter, they will be responsible for paying tuition and fees according to the Student Withdrawal and Refund policy.

**Important:** Please also be aware of the other financial implications of withdrawing from the University (including taking a Leave of Absence) that may impact financial aid. Visit the [Financial Aid](#) tab on the portal.

### **Further information**

The first day of classes is determined by the University academic calendar.

Students who enroll for courses after the quarter start date and then drop/withdraw from courses are still responsible for paying tuition and fees in accordance with the tuition and fee schedule.

Students who take a Leave of Absence may pay a higher tuition and fees rate upon return to the University.

## **Tuition Prepayment Policy**

Any student requesting to prepay his or her tuition for one or more years beyond the current year's tuition may prepay his or her future tuition at the current year's tuition rate provided the full payment for the current year and for each subsequent year(s) is received by MBKU Student Accounts Services no later than thirty (30) days following the first day of the current year Fall Quarter. Future annual tuition increases will not be charged to those students who have elected to fully prepay their future tuition. Any student who is dismissed or officially withdraws from the program, as per the requirements stated in the MBKU catalog, will have his or her prepaid tuition returned, except for the current year's tuition, which will be refunded as per the policy stated in the current MBKU catalog.

# CHAPTER III: PROGRAMS

## SOUTHERN CALIFORNIA COLLEGE OF OPTOMETRY

### DOCTOR OF OPTOMETRY

#### MISSION

To inspire and educate future doctors of optometry to provide collaborative, evidence-based, ethical, and equitable health care that reflects the evolving practice of optometry, and to be leaders in the community and profession.

#### PROGRAM OVERVIEW

The Doctor of Optometry is a four-year academic program that prepares graduates to deliver contemporary eye, vision and health care as an integral member of the primary care health team.

During the first year, students are introduced to clinical techniques and the foundational biomedical and vision sciences.

The second year emphasizes advanced studies in clinical techniques, biomedical, and visual sciences. Students begin seeing their first patients at Ketchum Health, the university's eye and health center.

Third-year students have patient care assignments at Ketchum Health and take courses in contact lenses, vision therapy, treatment and management of diseases of the eye, clinical medicine, and public health.

The final year is primarily spent serving patients in the various facilities of the outreach clinical program and within the University operated Ketchum Health Network. The mission of the Southern California College of Optometry Outreach Clinical Programs is to deliver the highest quality patient care and service, and to train externs in the art and science of optometry in diverse patient care delivery environments.

The degree of Doctor of Optometry will be conferred on students who are officially admitted to, and who satisfactorily complete, the four-year professional curriculum in optometry. Satisfactory completion of the SCCO program will academically qualify the graduate to apply for licensure in each of the 50 states and Canada.\*

*\*Each state/province has its own requirements for licensure. Candidates for licensure should refer to the individual state/province requirements.*

#### ADMISSIONS

The Southern California College of Optometry is committed to accepting a diverse group of qualified individuals from a variety of backgrounds and experiences in accordance with MBKU's nondiscrimination policy.

#### Functional Guidelines for Didactic and Clinical Optometric Education

The functional guidelines in optometric education require that the candidate/student possess appropriate abilities in the following areas:

1) observation; 2) communication; 3) sensory and motor coordination; 4) intellectual –conceptual, integrative and quantitative abilities; and 5) behavioral and social attributes. Each of these areas is described below.

#### Observation Abilities

The student must be able to acquire a defined level of required knowledge as presented through lectures, laboratories, demonstrations, patient interaction and self-study. Acquiring this body of information necessitates the functional use of visual, auditory and somatic sensation enhanced by the functional use of other sensory modalities. Examples of these observational skills in which accurate information needs to be extracted in an efficient manner include:

#### Visual Abilities (as they relate to such things as visual acuity, color vision and binocularity)

- Visualizing and reading information from papers, films, slides, video and computer displays
- Observing optical, anatomic, physiologic and pharmacologic demonstrations and experiments
- Discriminating microscopic images of tissue and microorganisms
- Observing a patient and noting non-verbal signs
- Discriminating numbers, images and patterns associated with diagnostic tests and instruments
- Visualizing specific ocular tissues in order to discern three-dimensional relationships, depth and color changes

#### Auditory Abilities

- Understanding verbal presentations in lecture, laboratory and patient settings

- Recognizing and interpreting various sounds associated with laboratory experiments as well as diagnostic and therapeutic procedures

#### **Tactile Abilities**

- Palpating the eye and related areas to determine the integrity of the underlying structures
- Palpating and feeling certain cardiovascular pulses

#### **Communication Abilities**

The student must be able to communicate effectively, efficiently and sensitively with patients and their families, peers, staff, instructors and other members of the health care team. The student must be able to demonstrate established communication skills using traditional and alternative means. Examples of required communications skills include:

- Relating effectively and sensitively to patients, conveying compassion and empathy
- Perceiving verbal and non-verbal communication such as sadness, worry, agitation and lack of comprehension from patients
- Eliciting information from patients and observing changes in mood and activity
- Communicating quickly, effectively and efficiently in oral and written English with patients and other members of the health care team
- Reading and legibly recording observations, test results and management plans accurately
- Completing assignments, patient records and correspondence accurately and in a timely manner

#### **Sensory and Motor Coordination Abilities**

Students must possess the sensory and motor skills necessary to perform an eye examination, including emergency care. In general, this requires sufficient exteroception sense (touch, pain, temperature), proprioceptive sense (position, pressure, movement, stereognosis and vibratory) and fine motor function (significant coordination and manual dexterity using arms, wrists, hands and fingers).

Examples of skill required include but are not limited to:

- Instillation of ocular pharmaceutical agents
- Insertion, removal and manipulation of contact lenses
- Assessment of blood pressure and pulse
- Removal of foreign objects from the cornea
- Simultaneous manipulation of lenses, instruments and therapeutic agents and devices
- Reasonable facility of movement
- Injections into the eye, lids or limbs

#### **Intellectual-Conceptual, Integrative and Quantitative Abilities**

Problem solving, a most critical skill, is essential for optometric students and must be performed quickly, especially in emergency situations. In order to be an effective problem solver, the student must be able to accurately and efficiently utilize such abilities as measurement, calculation, reasoning, analysis, judgment, investigation, memory, numerical recognition and synthesis. Examples of these abilities include being able to:

- Determine appropriate questions to be asked and clinical tests to be performed
- Identify and analyze significant findings from history, examination and other test data
- Demonstrate good judgment and provide a reasonable assessment, diagnosis and management of patients
- Retain, recall and obtain information in an efficient manner
- Identify and communicate the limits of one's knowledge and skill

#### **Behavioral and Social Attributes**

The student must possess the necessary behavioral and social attributes for the study and practice of optometry. Examples of such attributes include:

- Satisfactory emotional health required for full utilization of one's intellectual ability
- High ethical standards and integrity
- An empathy with patients and concern for their welfare
- Commitment to the optometric profession and its standards
- Effective interpersonal relationships with patients, peers and instructors
- Professional demeanor
- Effective functioning under varying degrees of stress and workload
- Adaptability to changing environments and uncertainties
- Positive acceptance of suggestions and constructive criticism

It is our experience that a number of individuals with disabilities, as defined by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, are qualified to study and work as health care professionals and scientists with the use of reasonable accommodations. To be qualified for health sciences programs at MBKU those individuals must be able to meet both our academic standards and the technical standards, with or without reasonable accommodations.

For further information regarding services and resources for students with disabilities and/or to request accommodations, please contact the Office for Student Affairs.

## Prerequisites

Academic requirements for admission to SCCO are based on standards set by the California State Board of Optometry, the accrediting bodies and the judgment of the Admissions Policy Committee. To be considered as a candidate for admission to the professional OD program, a four-year baccalaureate degree is recommended but not required. Applicants who complete a minimum of 90 semester or 135 quarter credit hours of undergraduate study will qualify for admission. To be eligible to apply, the applicant must be on track to complete the required credit hours or degree by the end of the summer term that precedes fall matriculation.

The following minimum prerequisite courses must be completed with a C- or better at a regionally accredited college or university in the U.S. or Canada:

Applicants who are not U.S. citizens or permanent U.S. residents must submit a certified bank statement showing their ability to pay for the first year of education prior to an I-20 form being issued for immigration purposes.

### 6 semester credit hours or 9 quarter credit hours:

- General Biology or Zoology (no lab required)
- English Composition or Literature (writing intensive courses are acceptable)

### 8 semester credit hours or 12 quarter credit hours in each of the following:

- General Physics (one year sequence, including labs)
- General Chemistry (one year sequence, including labs)

### 3 semester credit hours or 4 quarter credit hours in each of the following:

- Calculus (analytic geometry/calculus also acceptable)
- General Microbiology or Bacteriology (including lab)
- Human Anatomy (no lab required)
- Human Physiology (no lab required)
- Organic Chemistry (no lab required)
- Biochemistry (no lab required)
- Psychology
- Statistics

Placement (AP) courses for the prerequisites will be accepted as long as the appropriate number of credit hours was received. These courses must appear on your official college transcript or in a letter from the registrar.

## Procedures

The number of applicants for admissions to SCCO regularly exceeds the number of available spaces. SCCO, as a regional and national resource, receives applications from nearly every state in the nation as well as from foreign countries.

All first-time applicants, re-applicants and those who have been previously enrolled in another optometry program must apply through the centralized service OptomCAS at [optomcas.org](http://optomcas.org). Applicants must follow the instructions on how to complete the application, submit transcripts and submit letters of recommendation. In addition, SCCO's supplemental application is located on the OptomCAS site and may be completed after selecting SCCO as a program to receive the application. The SCCO supplemental application fee is \$75 and must be paid directly to SCCO through the MBKU portal. Applicants will receive an automatic notification of how to pay the supplemental application fee once the application is received from OptomCAS. The official SCCO application period is July 1 (the first day of the OptomCAS cycle) through April 1. Applicants must submit both application and college transcripts to OptomCAS by April 1.

Standardized test scores are a mandatory application requirement. While the OAT is the preferred standardized test, SCCO accepts the MCAT, DAT, or PCAT. SCCO will also accept the GRE General Test for those applicants with a BCP (biology chemistry physics) GPA of 3.0 or higher (there is no minimum GPA qualification for the OAT, MCAT, DAT, or PCAT). The website for the OAT program is: [ada.org/en/oat](http://ada.org/en/oat). OAT and GRE scores are automatically submitted to the OptomCAS application by the testing companies. For standardized scores other than the OAT, it is the applicant's responsibility to authorize release of these scores to SCCO. The last test date for all standardized test scores that will be accepted is April 1.

Accepted applicants who are required to submit the following requirements:

1. A non-refundable matriculation deposit of \$750
2. A signed Matriculation Agreement
3. A Criminal Background Check

Anyone admitted prior to May 1 has two weeks from the date of acceptance to submit these requirements to hold their seat. By May 15, a second non-refundable \$750 deposit is required to secure their seat. Anyone admitted after May 1 has one week to submit the requirements and must submit the full deposit by the deadline. The full \$1500 deposit will be credited to the Fall Quarter tuition upon their enrollment. Accepted candidates who have not completed all course prerequisites at the time of application must do so before beginning studies at SCCO. Send a request for more information on the application and interview process to [odadmissions@ketchum.edu](mailto:odadmissions@ketchum.edu).

### **Process**

Once applications are received, it is SCCO's responsibility to select those applicants who are best qualified to make a contribution to the public and profession and who will benefit most from the optometric education program. The decision for admission is based on the applicant's ability, scholarship, character and motivation.

Once an application is submitted in OptomCAS, it takes approximately 2-3 weeks for OptomCAS to verify the application and release it to SCCO. Once we receive the application, applicants are given the ability to pay the \$75 Supplemental Fee, which initiates the process of evaluation. Though not a mandatory requirement, letters of recommendation will be available to SCCO through OptomCAS. OAT scores are automatically processed and become available from the testing center within three weeks after the exam. The admissions procedure begins with a screening of each applicant's scholastic qualifications including the college record and the OAT scores. The goal is to select students who are academically capable of completing the Doctor of Optometry program.

Next, the applicant's personal qualifications are reviewed, since the study and practice of optometry requires great responsibility, maturity, ethics, devotion, intellectual curiosity and social commitment. Letters of recommendation, essays and extracurricular activities are evaluated. Candidates will be invited to campus for interviews dependent upon their academic and professional potential credentials. Interviews will begin in the fall and will be completed early in the spring. The interview enables SCCO and the applicant to learn more about each other. Additionally, the interview process endeavors to appraise such personal qualities as responsiveness, warmth, social situation adjustment, the communication of clear and concise ideas, maturity and career motivation. Should an applicant successfully interview, a provisional acceptance is offered pending successful completion of a routine criminal background check.

### **COMBINED PROGRAM**

SCCO also offers a combined Doctor of Optometry and Master of Science in Vision Science program. Students admitted into the combined program are chosen from those accepted into the regular four-year Doctor of Optometry program. Students may apply for admission into the two programs concurrently or OD students may apply as late as week 8 of the Fall quarter of their first professional year.

### **TRANSFER POLICY**

The Southern California College of Optometry does not accept transfer students or offer advanced standing under any circumstances. All applicants to our program must apply through OptomCAS and complete the entire four-year program.



## FINANCIAL INFORMATION

### Tuition

#### 2023-24 Tuition, Doctor of Optometry program

Annual Tuition & Fees	Full-Time Tuition	Class Fee	Mandatory Equipment & Materials	Student Association Fee	Graduation Fee	Total Annual Tuition and Fees
Class of 2024	\$49,230.00	\$45.00	NA	\$70.00	\$115.00	\$49,460.00
Class of 2025	\$49,230.00	\$45.00	\$2,878.10	\$70.00	NA	\$52,223.10
Class of 2026	\$49,230.00	\$45.00	\$1,422.73	\$70.00	NA	\$50,767.73
Class of 2027	\$49,230.00	\$45.00	\$7,164.84	\$70.00	NA	\$56,509.84

Quarterly Tuition & Fees	Summer	Fall	Winter	Spring	Total Tuition & Fees
Class of 2024	\$12,307.50	\$12,422.50	\$12,307.50	\$12,422.50	\$49,460.00
Class of 2025	\$13,027.02	\$13,142.02	\$13,027.02	\$13,027.04	\$52,223.10
Class of 2026	NA	\$16,999.25	\$16,884.24	\$16,884.24	\$50,767.73
Class of 2027	NA	\$18,913.28	\$18,798.28	\$18,798.28	\$56,509.84

#### Tuition for returning students enrolled less than full time

Tuition (*less than full time*) per credit hour.....\$864.63

#### Fees

Annual Parking fee (*optional*).....\$335.00

While the occasion has not previously presented itself, the MBKU Board of Trustees does reserve the right to change tuition and fees or to establish additional fees for special features or services if deemed necessary.

# CURRICULUM

## First Year

Fall Quarter		
Course No.	Course Title	Units
BVS 511	Applied Biomedical Science	3.00
BVS 540	Optics I	5.00
BVS 550	Eye Movements	4.25
CLE 590A	Optometric Clinical Service I	0.25
IPE 406A	Principles of Diversity, Equity and Inclusion in Healthcare	0.75
IPE 401A	Professional Ethics	0.75
CLS 560	Clinical Methods I	4.50
<b>TOTAL</b>		<b>18.50</b>

Winter Quarter		
Course No.	Course Title	Units
BVS 530	Ocular Anatomy and Physiology I	5.00
BVS 541	Optics II	5.00
BVS 551	Visual Optics	4.00
CLE 590B	Optometric Clinical Service I	0.25
IPE 403A	Population and Public Health	2.00
CLS 561	Clinical Methods II	4.50
<b>TOTAL</b>		<b>20.75</b>

Spring Quarter		
Course No.	Course Title	Units
BVS 513	Neurophysiology	4.50
BVS 515	Pharmacology I	3.00
BVS 531	Ocular Anatomy and Physiology II	3.00
BVS 542	Ophthalmic Optics I	3.00
BVS 552	Visual Psychophysics	4.25
CLE 590C	Optometric Clinical Service I	0.25
CLS 660A	Ocular Health Procedures IA	3.00
<b>TOTAL</b>		<b>21.00</b>

## Second Year

Fall Quarter		
Course No.	Course Title	Units
CLS 664A	Ocular Disease Diagnosis and Mgmt IA	2.00
BVS 640	Ophthalmic Optics II	3.00
BVS 650	Sensory Vision	4.25
CLE 690	Optometric Clinical Service III	0.75
CLS 660B	Ocular Health Procedures IB	3.00
CLS 670	Cornea and Contact Lenses I	4.00
BVS 616	Pharmacology II	2.00
CLS 661	Case Analysis and Prescribing I	2.00
<b>TOTAL</b>		<b>21.00</b>

Winter Quarter		
Course No.	Course Title	Units
BVS 651	Binocular Vision and Space Perception	3.50
CLS 671	Cornea and Contact Lenses II	3.50
IPE 402A	Evidence Based Practice	2.00
CLE 691	Optometric Clinical Service IV	1.00
CLS 664B	Ocular Disease Diagnosis and Mgmt IB	2.00
BVS 617	Pharmacology III	2.00
CLS 663	Ocular Health Procedures II	3.50
CLS 662	Case Analysis and Prescribing II	2.00
<b>TOTAL</b>		<b>19.50</b>

Spring Quarter		
Course No.	Course Title	Units
CLS 672	Mgmt of Non-Strab Binoc Vision Condit	3.50
CLE 692	Optometric Clinical Service V	1.00
CLS 760	Pediatric Optometry	2.00
CLS 762B	Ocular Disease Diagnosis and Mgmt IIB	2.00
CLS 770	Cornea and Contact Lenses III	3.25
BVS 618	Pharmacology IV	2.00
CLS 665	Case Analysis and Prescribing III	2.00
<b>TOTAL</b>		<b>15.75</b>

## Third Year

Summer Quarter		
Course No.	Course Title	Units
CLE 790	Optometric Clinical Service VI	3.50
CLS 771	Vision, Perception and Learning	4.00
CLS 762A	Ocular Disease Diagnosis and Mgmt IIA	3.00
CLS 720	Clinical Medicine I	4.00
CLS 783	Business & Career Management I: Career Planning and Clinic Readiness	2.00
<b>TOTAL</b>		<b>16.50</b>

Fall Quarter		
Course No.	Course Title	Units
CLE 791	Optometric Clinical Services VII	3.50
CLS 763A	Ocular Disease Diagnosis and Mgmt IIIA	2.00
CLS 772	Strabismus and Amblyopia Diagnosis	4.50
CLS 721	Clinical Medicine II	4.00
<b>TOTAL</b>		<b>14.00</b>

Winter Quarter		
Course No.	Course Title	Units
CLE 792	Optometric Clinical Service VIII	3.50
CLS 763B	Ocular Disease Diagnosis and Mgmt IIIB	2.00
CLS 722	Ophthalmic Lasers, Injections and Medical Diagnostics	2.50
CLS 774	Low Vision Rehabilitation	4.00
CLS 773	Strabismus and Amblyopia Mgmt	3.00
<b>TOTAL</b>		<b>15.00</b>

Spring Quarter		
Course No.	Course Title	Units
CLE 793	Optometric Clinical Service IX	3.50
IPE 404A	IPE Case Conferences	0.75
CLS 765	Ocular Disease Case Management	1.00
CLS 723	Ophthalmic Surgery	2.50
CLS 775	Cornea and Contact Lenses IV	1.50
CLS 782	Health Promotion	1.00
CLS 784	Business & Career Management II: Business Management Principles for Employed and Owner Optometrists	1.50
<b>TOTAL</b>		<b>11.75</b>

## Fourth Year

All Quarters		
Course No.	Course Title	Units
CLS 885A/B/C/D	Business & Career Management III: Career Decisions	2.00
CLE 890	Clinical Seminars	4.00
CLE 891	Optometric Clinical Service X	12.00
CLE 892	Outreach Clinical Service I	12.00
CLE 893	Outreach Clinical Service II	12.00
CLE 894	Outreach Clinical Service III	12.00
<b>TOTAL</b>		<b>54.00</b>

## SCHOLARSHIPS AND AWARDS

Each year more than 150 scholarships and awards totaling more than \$500,000 are given to qualified optometry students at MBKU. These awards are made possible by philanthropic donors who made gifts of private support to SCCO.

Fall scholarships and spring awards recognize and honor students who have achieved excellence in academics, clinical skills, research, leadership and service or have financial need. Recipients of scholarships are determined by the SCCO Scholarship Committee, SCCO clinical faculty and Dean of SCCO under the direction of the SCCO Director of Student Affairs. All students, entering any of the four professional years of study, may apply for Fall scholarships based on criteria given by the donors. All monetary scholarships are directly applied to the recipients' financial aid package for education expenses at the university.

Spring awards are primarily given to graduating fourth year students at SCCO. Under the direction of the SCCO Director of Student Affairs and the SCCO Scholarship Committee, the clinical faculty in each discipline recommend recipients on the basis of merit in their clinical area based on criteria as set forth by the award donor. These awards recognize the noteworthy achievements made by optometric interns.

Descriptions of individual scholarships and awards may be found by accessing the Tuition & Financial Aid page on the SCCO Admissions website by clicking this link: [SCCO Scholarship Programs](#).

## COMMENCEMENT AWARDS

Latinized honors are accorded to those students who have excelled scholastically on the following basis:

Summa Cum Laude 3.80 – 4.00

Magna Cum Laude 3.60 – 3.79

Cum Laude 3.40 – 3.59

## GRADUATION REQUIREMENTS

A student will be recommended for the degree of Doctor of Optometry, provided the candidate:

- Has completed all prescribed academic requirements;
- Is not on academic probation, has a cumulative grade point average of 2.5 or higher, has no outstanding grade which is incomplete, and has a passing grade for all clinical rotations;
- Settle all financial accounts with the University.

The degree will not be conferred and the diploma will not be issued until all graduation requirements are met.

If a student has not met all graduation requirements, the student may be eligible to walk-through and participate in the graduation ceremony with their class, if approved by the dean.

*Note on licensure: Meeting the graduation requirements for the OD degree at the Southern California College of Optometry at Marshall B. Ketchum University does not guarantee eligibility for state licensure. Some states have specialized curricular requirements for licensure, and students are advised to check with the Optometry Board in states of possible residency for licensure requirements. The Southern California College of Optometry reserves the right to make changes to the academic requirements,*



*teaching modality, and required schedule at any point to ensure that all competencies and objectives are being met by optometry students.*

## **RESIDENCY PROGRAMS**

The mission of the Department of Residency Programs of SCCO at MBKU is to establish, promote and support postgraduate residency training. Residency programs are uniquely designed to advance the intellectual knowledge and enhance the clinical expertise of residents through excellence in patient care, scholarly activity and research.

SCCO at MBKU has residency programs that cover the areas of Cornea & Contact Lenses, Low Vision Rehabilitation, Neuro-Optometry, Ocular Disease, Primary Care and Pediatric Optometry/Vision Therapy. There are currently 60 residency positions within 30 programs in the areas of health management organization, Indian Health Service, multi-disciplinary settings, private-practice settings, on-campus programs and Veterans Affairs. For detailed information regarding residency programs, please visit our website: [ketchum.edu/optometry/academics/residency-programs](http://ketchum.edu/optometry/academics/residency-programs). These one-year accredited postdoctoral programs are focused in training our residents to attain advanced competencies through direct patient care with exceptional clinical management experiences, teaching opportunities, and didactic/scholarship activities. All programs are structured in accordance with the guidelines of the AOA's Accreditation Council on Optometric Education and are fully accredited or are provisionally accredited during the inaugural year. All residents receive a stipend, liability coverage and various benefits depending on the specific program.

## REQUIRED COURSES

### **BVS 511: Applied Biomedical Science. (3 credit hours)**

Three lecture hours per week. This course integrates a review and clinical applications of Biochemistry, Genetics, Immunology and Microbiology. Clinically important aspects of biochemistry and microbiology as it relates to normal and abnormal vision function are presented. Basic and clinical aspects of bacteriology, virology, mycology and parasitology are covered. Infections of the eye are discussed in relation to techniques for laboratory isolation, culturing and identification of the infectious agents. The genetic component of this course introduces the fundamental concepts of molecular genetics through an understanding of DNA, RNA, mRNA and tRNA. Immunology content introduces the types of immunity in humans. Allergies are presented with emphasis on those allergies important to optometrists. The response of the normal human immune system to infection and the collapse of the immune system during the development of autoimmune disorders will be addressed.

### **BVS 513: Neurophysiology. (4.5 credit hours)**

Three lecture hours and three laboratory hours equivalent per week. This course presents the study of the central nervous system, including cellular neurophysiology, organization of sensory pathways, voluntary control of movement and the physiology of central visual pathways. Laboratory instruction includes the gross and microscopic anatomy of the nervous system, the study of the major sensory and motor pathways of the brain, as well as discussion of the clinical correlations of neuro-anatomical structure.

### **BVS 515: Pharmacology I. (3 credit hours)**

Three lecture hours per week. This fundamental course in pharmacology introduces the student to basic concepts of drug effects on the body organs and systems, including the eye. The pharmacological actions, mechanisms, clinical applications and potential adverse effects of systemic drugs in current clinical use are considered in detail.

### **BVS 530: Ocular Anatomy and Physiology I. (5 credit hours)**

Four lecture hours and two laboratory hours per week. This course presents a systematic study of the anatomy and physiology of the eye. Lecture topics include the structure and function of the head and neck, ocular orbit, lids, lacrimal apparatus, conjunctiva, and cornea. Topics are approached from a gross anatomical, physiological, histological, and embryological perspective within the scope of contemporary primary care optometric practice.

### **BVS 531: Ocular Anatomy and Physiology II. (3 credit hours)**

Two lecture hours and two laboratory hours per week. This course presents a systematic study of the anatomy and physiology of the eye. Lecture topics include the structure and function of the uveal tract, intraocular fluids, lens, retina and optic nerve. Topics are approached from a gross anatomical, physiological, histological, and embryological perspective within the scope of contemporary primary care optometric practice.

### **BVS 540: Optics I. (5 credit hours)**

Four lecture hours and two laboratory hours per week. This course is an introduction to the geometrical optics of prisms, mirrors and lenses. Emphasis is placed on the characteristics of optical images formed by these basic elements and their combinations. Applications of the subject matter to vision and clinical optometry are discussed.

### **BVS 541: Optics II. (5 credit hours)**

Four lecture hours and two laboratory hours per week. This course presents advanced topics in geometrical optics and an introduction to physical optics. Of primary interest are optical instruments and their properties, chromatic and monochromatic aberrations, interference, diffraction and polarization. Applications to vision science and clinical optometry are discussed.

### **BVS 542: Ophthalmic Optics I. (3 credit hours)**

Two lecture hours and two laboratory hours per week. This introductory course in ophthalmic prescription measurement includes the use of instruments to design and measure spherical, cylindrical, and prismatic lens powers, as well as the determination of surface powers and base curves. The course emphasizes basic calculation principles and use of ophthalmic lens measuring devices, as well as discussion of lens materials and designs, and frame and spectacle measurements.

### **BVS 550: Eye Movements. (4.25 credit hours)**

Three and one-half lecture hours and one and one-half laboratory hours per week. Eye movements are described with an emphasis on their functional characteristics. The anatomy and physiology of the extraocular muscles and the various neural pathways serving eye movements are presented within a framework of the functions they serve. Emphasis is placed on the basic oculomotor kinematics that will be necessary for clinical interpretation of eye movement disorders. Classes of eye movements that are considered in detail include vestibulo-ocular and optokinetic eye movements, pursuits, saccades, vergence, fixational eye movements and reading eye movements.

**BVS 551: Visual Optics. (4 credit hours)**

Three and one-half lecture hours and one laboratory hour per week. The eye is studied as the physiological optical element of the visual system. The optical components of the eye are discussed in terms of their geometrical, physical, physiological, psychophysical and optical properties. The eye is considered as an image-forming mechanism, where each component contributes to the nature and quality of the retinal image. The relationship between optics and visual performance is discussed, including the effects of ametropias and oculomotor systems on vision.

**BVS 552: Visual Psychophysics. (4.25 credit hours)**

Three and one-half lecture hours and one and one-half laboratory hours per week. This course is primarily concerned with the study of visual stimuli and the subjective perceptual responses they evoke from the human visual system. Included are the principles of photometry as well as topics related to the visual response to basic light stimuli at absolute threshold, in intensity discrimination as used in visual fields, and during light and dark adaptation. More complex visual stimuli used for clinical visual acuity testing is explored in detail. The psychophysical methods used to investigate these aspects of the human visual system are emphasized as they underlie all types of clinical optometric subjective testing.

**BVS 616/617/618: Pharmacology II/III/IV. (2 credit hours/2 credit hours/2 credit hours)**

This course presents the pharmacology of systemic and ocular drugs used for the prevention, diagnosis and treatment of diseases. The pharmacological actions, mechanisms, clinical applications and potential adverse effects of systemic drugs that are important to optometrists are discussed in detail.

**BVS 640: Ophthalmic Optics II. (3 credit hours)**

Two lecture hours and two laboratory hours per week. This course presents advanced optical principles and concepts of ophthalmic lens parameters and characteristics including lens thickness, impact resistance, multifocal and progressive design, absorptive tints and coatings, lens power effectivity, tilt effects, and lens magnification. Clinical applications of specific lens designs for occupational use and for compensation of prismatic imbalance are also discussed. The laboratory includes instruction in the fitting, adjusting, and repair of ophthalmic frames and eyewear.

**BVS 650: Sensory Vision. (4.25 credit hours)**

Three and one-half lecture hours and one and one-half laboratory hours per week. This course emphasizes the scientific and clinical fundamentals of color vision and contrast sensitivity (spatial and temporal). Additionally, the differences in the vision function of the infant and geriatric visual systems are discussed with application to clinical care. The subject matter is explored both from the basic anatomical and physiological mechanisms involved in these sensory processes, as well as the clinical tests and procedures used to evaluate them. Clinical proficiency in the diagnosis and management of color vision deficiencies, as well as contrast sensitivity testing, is obtained in this course.

**BVS 651: Binocular Vision and Space Perception. (3.5 credit hours)**

Three lecture hours and two laboratory hours per week. Binocular Vision and Space Perception is a vision science course that provides foundational knowledge for understanding diagnostic and treatment procedures for patients who have anomalies of binocular vision or space perception. The concept of corresponding retinal points and common visual directions will serve as the foundation for understanding sensory testing in strabismus. We will also discuss procedures to measure the level of sensory fusion in both individuals with normal and abnormal binocular vision. Finally, the course addresses monocular and binocular aspects of space perception.

**CLE 590A/B/C: Optometric Clinical Service IA/B/C. (0.25 credit hours each = 0.75 total credit hours)**

This introductory course to patient care is designed to immerse the student intern in the basics of clinical eye examination and doctor-patient communications. The student intern will be participating in activities in preparation for direct patient care including clinical observations and patient interactions.

**CLE 690: Optometric Clinical Service III. (0.75 credit hours)**

Three clinic hours per week. This course is designed to provide practical, clinical experience within Ketchum Health and external programs. Students gain clinical experience through clinical proficiencies and direct patient care under the supervision of licensed optometrists within the Primary Care Service. Preparation for patient care services will be emphasized.

**CLE 691: Optometric Clinical Service IV. (1 credit hour)**

Four clinic hours per week. Student interns will provide comprehensive primary care examinations to the limits of their education under the direct supervision of faculty preceptors at Ketchum Health. Student interns provide primary vision care utilizing all procedures learned in the preceding pre-clinical courses. Clinical decision making in the care of the patient will be emphasized.

**CLE 692: Optometric Clinical Service V. (1 credit hour)**

Four clinic hours per week. Student interns are assigned to the Primary Care Service in Ketchum Health to conduct full-scope comprehensive eye examinations under the direct supervision of faculty preceptors. Additionally, optical dispensing experiences and observations in other clinic services will prepare students for their multi-disciplinary summer internship.

**CLE 790: Optometric Clinical Service VI. (3.5 credit hours)**

Fourteen clinic hours per week. Student interns are assigned to patient care at Ketchum Health. Emphasis is placed on optometric examination skills and the utilization of problem-oriented records in all services. Demonstrations of differential diagnostic treatment and management techniques in ocular disease and special testing methods are provided. Diagnostic and therapeutic pharmaceutical agents are utilized in all clinical services under the direct supervision of licensed optometric faculty and/or board-certified ophthalmologists. Completion of a certified course in cardiopulmonary resuscitation is required during this quarter.

**CLE 791: Optometric Clinical Services VII. (3.5 credit hours)**

Fourteen clinic hours per week. Student interns are assigned to patient care at Ketchum Health. Emphasis is placed on the use of the problem-oriented examination and technical proficiency in evaluating the visual system. Diagnostic and therapeutic pharmaceutical agents are utilized in all clinical services under the direct supervision of licensed optometric faculty and/or board-certified ophthalmologists.

**CLE 792: Optometric Clinical Service VIII. (3.5 credit hours)**

Fourteen clinic hours per week. Student interns are assigned to patient care at Ketchum Health. Emphasis is placed on the use of the problem-oriented examination and technical proficiency in evaluating the visual system. Diagnostic and therapeutic pharmaceutical agents are utilized in all clinical services under the direct supervision of licensed optometric faculty and/or board-certified ophthalmologists.

**CLE 793: Optometric Clinical Service IX. (3.5 credit hours)**

Fourteen clinic hours per week. Student interns are assigned to patient care at Ketchum Health. Emphasis is placed on differential diagnosis of visual and ocular conditions, case analysis, recommendations for treatment, management, continuing care and referral criteria. Diagnostic and therapeutic pharmaceutical agents are utilized in all clinical services under the direct supervision of licensed optometric faculty and/or board-certified ophthalmologists.

**CLS 560: Clinical Methods I. (4.5 credit hours)**

Three lecture hours and three laboratory hours per week. This course is the first in a series that presents the basic clinical tests and procedures comprising a comprehensive primary eye care examination. The content of this course includes the principles and clinical methods for entrance testing, retinoscopy, and clinical refraction. The laboratory provides demonstration and practice of these clinical methods.

**CLS 561: Clinical Methods II. (4.5 credit hours)**

Three lecture hours and three laboratory hours per week. This course is a continuation of Clinical Methods I and emphasizes the principles and clinical methods for patient interviewing, history taking, entrance testing, assessment of basic binocular vision and accommodation, and an introduction to prescribing spectacle lenses. The laboratory provides demonstration and practice of these clinical methods and how test results are recorded.

**CLS 660A/B: Ocular Health Procedures IA/IB. (3 credit hours/3 credit hours)**

One and one-half lecture hours and three laboratory hours per week. This course presents basic procedures and techniques in ocular health assessment for the primary care optometrist. The principles, performance and interpretation of various health assessment procedures utilized in clinical practice are discussed. A systematic, problem-oriented approach to the diagnostic evaluation of the eye and neuro-visual system is emphasized. Standards of care and medico-legal issues in ocular health assessment are presented along with insurance codes and reimbursement guidelines. The laboratory provides experience in the use of these procedures, as well as the clinical utilization of pharmaceutical agents commonly used in primary care optometric practice. The laboratory requires that students actively participate as doctors and patients while learning these procedures.

**CLS 661/662/665: Case Analysis and Prescribing I/II/III. (2 credit hours/2 credit hours/2 credit hours)**

Two lecture hours per week. This course is designed to support the student's clinical decision making from the classroom to the clinic. Integration and application of knowledge is stressed in the formulation of a clinical diagnosis and management. The use of scientific principles and epidemiology to review patient history, and the formulation and testing of hypotheses to arrive at a clinical diagnosis and management is stressed. Students are taught the art and science of prescribing lenses and prisms for ametropias, presbyopia and

binocular anomalies. Emphasis is placed on consideration of occupational, avocational and safety factors in determining a treatment and management plan.

**CLS 663: Ocular Health Procedures II. (3.5 credit hours)**

Two lecture hours and three laboratory hours per week. Clinical procedures used in the assessment, diagnosis, treatment and management of ocular disease, such as anterior segment eye disorders, retinal disease, the glaucomas and the ocular manifestations of systemic disease, are presented in this course. Emphasis is placed on the appropriate integration of the procedures in the ocular health examination. The laboratory solidifies the competence of the techniques utilized in the effective treatment and management of ocular disease.

**CLS 664A/B: Ocular Disease Diagnosis and Management IA/B. (2 credit hours/2 credit hours)**

Two lecture hours per week. This course presents a comprehensive discussion of anterior segment diseases and disorders. Pathophysiology of ocular tissues is related to the disease processes to provide a strong understanding of the ocular disease presentation and patient symptoms. Clinical cases are presented to enhance student learning. Clinical and laboratory evaluation is discussed along with the diagnosis, treatment, and management of anterior segment diseases. Current management strategies will emphasize the utilization of appropriate therapeutic agents and modalities for proper follow-up care. Selected readings help to emphasize current thoughts on treatment and management.

**CLS 670: Cornea and Contact Lenses I. (4 credit hours)**

Three lecture hours and two laboratory hours per week. The fundamentals of contact lenses are taught utilizing gas permeable contact lenses. Topics addressed in this course include lens optics, verification and analysis, and fluorescein pattern interpretation. Contact lens design and troubleshooting considering the contributions of corneal topography, refraction, over-refraction and tear lens calculations are mastered. Care of gas permeable contact lens patients and the anatomical and physiological changes associated with adaptation and long-term wear are discussed.

**CLS 671: Cornea and Contact Lenses II. (3.5 credit hours)**

Two lecture hours and three laboratory hours per week. Soft contact lens materials including hydrogel and silicone hydrogel, soft contact lens spherical and toric fit assessment, and patient management are taught. Contact lens prescribing strategies and patient cases are presented. Continuing applications of gas permeable contact lens fitting and management with emphasis on toric gas permeable fittings are presented. Dry eye etiology, diagnostic strategies, and treatment rationale and design are taught. Discussion of the physiologic impact of contact lenses on the cornea is presented in increased depth. Scleral lens philosophy, fitting and clinical assessment is presented.

**CLS 672: Management of Non-Strabismic Binocular Vision Conditions. (3.5 credit hours)**

Two lecture hours and three laboratory hours per week. This course will cover the diagnosis and management of non-strabismic binocular vision conditions including anomalies of the vergence, accommodation and ocular motor systems. Lecture topics include the clinical evaluation, case analysis, diagnosis and management of these systems. A range of treatment options will be discussed, including lenses, prisms and vision therapy. Office-based vision therapy utilizing a sequential approach will be emphasized.

**CLS 720/721: Clinical Medicine I/II. (4 credit hours/4 credit hours)**

Three lecture hours and two laboratory hours per week. This course provides the fundamental principles of general pathology and when applicable ocular implications and manifestations are highlighted. Topics of discussion include Cell Injury, Death, and Adaptation, Acute and Chronic Inflammation, Tissue Repair: Cell Regeneration, Fibrosis, and Wound Healing, Hemodynamic Disorders, Thrombosis, and Shock, Disorders of the Immune System, Genetic & Pediatric Diseases, Environmental Diseases, Neoplasia, General Pathology of Infectious Disease, Diseases of the Blood Vessels & the Heart, Hematopoietic & Lymphoid System, Respiratory System, Kidney and Its Collecting System, GI Tract & the Liver/ Biliary Tract, Pancreas & Diseases of the Endocrine, Musculoskeletal System, Nervous System, Skin, and Psychiatry. The laboratory portion concentrates on clinical procedures, diagnostic evaluation and treatment and management, and enables application of those theories learned in lecture. The laboratory include: gross clinical observation with emphasis on head and neck, review of systems, medical case history taking, medication reconciliation, patient case presentation, headache history, systemic emergencies, and cardiovascular evaluation comprising of pulse, blood pressure, carotid bruits assessment, glucometry & HA1C Testing, epiluminescence microscopy, cranial nerve test & neurological screener, allergy testing, and lab testing.

**CLS 722: Ophthalmic Lasers, Injections and Medical Diagnostics. (2.5 credit hours)**

Two lecture hours and one laboratory hour per week. The purpose of this course is for the student to become knowledgeable in the protocol of advanced complex diagnostic and therapeutic clinical procedures involving ocular disease conditions. Special emphasis is placed on the indications and procedural application of anterior and posterior segment lasers, neuro-imaging, diagnostic and therapeutic injections, laboratory evaluation of patients and emergency care.



**CLS 723: Ophthalmic Surgery. (2.5 credit hours)**

One and one-half lecture hours per week and two laboratory hours per week. The purpose of this course is to present ophthalmic surgical procedures and advanced imaging techniques that are commonly encountered in practice. Special emphasis is placed on pre-operative patient selection, variations of surgical procedures and assessment of normal and complicated post-surgical outcomes. Ordering and interpretation of imaging techniques will also be presented.

**CLS 760: Pediatric Optometry. (2 credit hours)**

Two lecture hours per week. The diagnosis and management of common vision problems in young children requires an understanding of vision development, as well as the utilization of diagnostic procedures that are developmentally appropriate. This course provides diagnostic strategies for examining the infant, toddler and preschooler. Application of pediatric tests for special needs children is presented, as well as the implication of ocular health on normal visual development.

**CLS 762A: Ocular Disease Diagnosis and Management IIA. (3 credit hours)**

Three lecture hours per week. The evaluation, diagnosis, treatment and management of diseases of the optic nerve and the glaucomas are presented. Emphasis is placed on understanding the disease process and the clinical presentation and appropriate use of diagnostic modalities, including new technologies. Therapeutic strategies emphasize medical and surgical management, co-management and follow-up care. Medico-legal issues, patient education and standards of care are presented including record keeping, coding and reimbursement guidelines.

**CLS 762B: Ocular Disease Diagnosis and Management IIB. (2 credit hours)**

Two lecture hours per week. This course series will detail the basic anatomy and physiology of posterior segment structures (vitreous, retina choroid) and then familiarize students with the pathophysiology, presentation, diagnosis, and clinical management of ocular diseases that manifest there. Ancillary testing important to managing these conditions such as spectral domain optical coherence tomography (SD-OCT), fundus auto-fluorescence (FAF), and fluorescein angiography (FANG) will also be introduced and reviewed, with an emphasis being placed on the structural and functional relationships of these tests.

**CLS 763A: Ocular Disease Diagnosis and Management IIIA. (2 credit hours)**

Two lecture hours per week. The course covers ocular complications associated with systemic disease. The lectures emphasize the diagnosis, treatment and management of the ocular sequela of systemic diseases as well as ocular signs that may preempt the onset of the systemic disease. Areas of emphasis include neurology, orbitopathy, endocrinology and connective tissue disorders.

**CLS 763B: Ocular Disease Diagnosis and Management IIIB. (2 credit hours)**

Two lecture hours per week. The course covers ocular complications associated with systemic disease. The lectures emphasize the diagnosis, treatment and management of the ocular sequela of systemic diseases as well as ocular signs that may preempt the onset of the systemic disease. Areas of emphasis include uveitic syndromes, adult and pediatric orbital disorders, adult thyroid eye disease, rheumatology, AIDS and ocular emergencies. Optometric co-management with internal medicine and medical subspecialties is emphasized.

**CLS 765: Ocular Disease Case Management. (1 credit hour)**

Two discussion hours per week. The purpose of this course is to effectively integrate the information presented in the prior ocular disease courses. Utilizing an interactive, small group case discussion format, students will be able to enhance their abilities in proper differential diagnosis, testing protocol, treatment and management and patient education of conditions related to ocular disease.

**CLS 770: Cornea and Contact Lenses III. (3.25 credit hours)**

Three lecture hours per week and five laboratory hours per quarter. Advanced and more complex contact lens designs and fitting options are reviewed. Topics include the care, fitting and management of ocular prosthetics, refractive surgery patient selection including available surgical procedures and co-management, and management options for presbyopia with single vision and multifocal contact lenses. Orthokeratology and myopia management are presented. Contact lens management for irregular corneas such as those found with post-surgical corneas, post-traumatic corneas, and keratoconus are discussed. Large diameter corneal and scleral contact lens indications and prescribing are covered. Contact lens care of pediatric patients, contact lens related complications and bandage contact lenses and amniotic membrane usage is also included. Patient cases are presented to assist the student in applying their classroom knowledge to patient care. The hands-on laboratory covering the procedures and techniques used in fitting, creation and fabrication of various ocular prosthetic devices as well as for the fitting and management of orthokeratology is to support the didactic component of the course.

**CLS 771: Vision, Perception and Learning. (4 credit hours)**

Three lecture hours and two laboratory hours per week. The course will give the student a systematic approach for the diagnosis and management of Developmental Visual Information Processing disorders. The role of the optometrist as part of a multidisciplinary team in evaluating children with learning disabilities will be emphasized. The course will provide a review of child development,

principles of standardized testing, learning disabilities and Attention Deficit Hyperactivity Disorder. The purpose of the tests used in the DVIP profile will be discussed along with relating specific disorders to symptoms that are found in the case history. Finally, a sequential management plan for treating patients with DVIP dysfunction will be presented.

**CLS 772: Strabismus and Amblyopia Diagnosis. (4.5 credit hours)**

Three lecture hours and three laboratory hours per week. The evaluation of patients presenting with strabismus and/or amblyopia is discussed. A sequential examination strategy is presented with emphasis on the administration and interpretation of diagnostic testing procedures to arrive at an accurate diagnostic summary. Etiology, prevalence and characteristics of the more common types of strabismus and amblyopia are highlighted. Communication of prognostic and diagnostic outcomes with parents, patients and other health care professionals is discussed.

**CLS 773: Strabismus and Amblyopia Management. (3 credit hours)**

Three lecture hours per week. Clinical management of patients with strabismus and/or amblyopia is discussed. Sequential treatment programs, including the use of lenses, prisms, occlusion, active vision therapy and appropriate surgical referrals for prevalent types of strabismus and amblyopia are presented. Emphasis is placed on early treatment, prevention and elimination of anomalous sensorimotor fusion, as well as the reestablishment of efficient binocular vision.

**CLS 774: Low Vision Rehabilitation. (4 credit hours)**

Three lecture hours and two laboratory hours per week. The topics presented include the performance characteristics of optical and non-optical treatment options for the visually impaired; assessment, treatment and management of geriatric and visually impaired patients; development of a vision rehabilitation plan; the multidisciplinary team approach to rehabilitation; patient communication and education; management of special populations; and practice management considerations. The laboratory presents the performance characteristics and clinical application of optical and non-optical treatment options for visual impairment.

**CLS 775: Cornea and Contact Lenses IV. (1.5 credit hours)**

Two laboratory hours and two clinic hours per week. This course consists of contact lens seminars and grand rounds. The major topic areas for student discussions and grand rounds patient presentations include management of regular and irregular astigmatism, presbyopia, irregular corneas such as keratoconus and pellucid marginal degeneration, management of orthokeratology and post-surgical corneas as well as prosthetics and dry eye. This course is designed for students to present patient cases and to submit a written case report.

**CLS 782: Health Promotion. (1 credit hour)**

One lecture hour per week. The course provides students with an understanding of the optometrist's role in health promotion. Program planning, implementation and evaluation of health promotion activities are discussed. Students are given the opportunity to participate in the creation of a community-based project of their choosing to gain firsthand experience in public health optometry.

**CLS 783/784: Business & Career Management I/II. (2 credit hours/1.5 credit hours)**

Two lecture hours per week. This course provides learning experiences for students in financial planning and professional goals setting. Emphasis is placed on enhancing a student's interpersonal skills and professionalism as part of patient care, modern business principles, and clinico-legal aspects of record keeping, patient confidentiality, documentation, coding and billing, record release, and Americans with Disabilities Act issues are also covered. The desired outcome of the course is that the student will be able to select and excel in the best practice situation that meets his or her personal goals upon graduation.

**CLS 885A/B/C/D: Business and Career Management III. (0.50 credit hours each = 2.00 total credit hours)**

The purpose of this course is to provide educational information and learning activities that facilitate the learning of knowledge and skills necessary for entering a desired mode of optometric practice. The students will be aware of the numerous options available to them and be able to choose that content most beneficial to their personal situations. The desired outcome is that the student will be prepared to enter her/his desired best practice situation upon graduation.

## **FOURTH YEAR CLINICAL ROTATION COURSES**

The fourth professional year is designed to promote continued development of the student's emerging clinical problem-solving abilities. The focus is on higher order cognitive thought processing such as analysis and evaluation, rather than basic levels of knowledge and comprehension. The instruction material is designed to advance the student's content knowledge beyond the first three years through challenging patient care problems that highlight or emphasize differential diagnosis, management decisions, referral decisions and follow-up, as well as address newer techniques and procedures for diagnosis and management. The outreach clinical programs provide students with comprehensive clinical education in the diagnosis, management and treatment of conditions of the visual system. Patient groups served are diverse in age, race, culture, socio-economic level and health delivery systems. Patient care is provided in various settings including optometric and co-management centers; Department of Veterans Affairs centers; HMOs;

military; public health and USPH Indian Health clinics; medical ambulatory clinics; community health centers; and general and specialty hospitals. Under direct supervision of licensed optometric faculty, students provide full-scope optometric care in specialty clinics. Interdisciplinary team training in vision rehabilitation and primary care educates students for the role of optometrists as vital members of the health care team. Advanced clinical instrumentation and both diagnostic and therapeutic pharmaceutical agents are utilized, in all clinical care settings, under the direct supervision of licensed optometric faculty and/or board-certified ophthalmologists.

To offer fourth-year students a wide variety of clinical educational experiences, SCCO has approximately 40 primary and 65 alternate outreach clinical program affiliations with various military, public health, Department of Veterans Affairs, low vision rehabilitation, developmental/pediatric clinics, co-management clinics, inter-professional clinics and private practices. The clinics are located throughout the U.S., with the majority located west of the Mississippi River, as well as international sites located in Japan. These clinical programs are operated in conjunction with a number of independent, local, state and federal agencies.

Students select their outreach assignments at the beginning of the third professional year, which allows for a full year of planning.

#### **CLE 891: Optometric Clinical Service X. (12 credit hours)**

Forty-eight clinic hours per week for a twelve-week rotation. Student interns continue outpatient care assignments in the Primary Care, Optical, Cornea and Contact Lenses, Pediatric Optometry, Vision Therapy, Low Vision Rehabilitation and Chronic Care, Special Testing and Ophthalmology Consultation Services at Ketchum Health. Emphasis is placed on differential diagnosis of eye conditions, case analysis, treatment, patient management and efficient problem-solving skills. Quality assurance by record review and direct patient care experience is emphasized. Diagnostic and therapeutic pharmaceutical agents are utilized in all clinical services under the direct supervision of licensed optometric faculty and/or board-certified ophthalmologists. Students also participate in school screening programs and rotate through specialty clinical practices.

#### **CLE 890: Clinical Seminars. (4 credit hours)**

Forty seminar hours per year. This seminar series is presented as a weekly program during each clinic rotation at Ketchum Health. The seminars highlight patient care topics including, but not limited to primary care, contact lenses, vision therapy, low vision rehabilitation, ocular therapeutics, practice management and career preparation. Basic science and clinical science concepts are integrated within the context of these topics. The format of the seminar program includes lectures, workshops, laboratories, grand rounds, demonstrations and small group discussions.

#### **CLE 892: Outreach Clinical Service I. (12 credit hours)**

Forty-eight clinic hours per week in the off-campus Outreach Clinical program.

#### **CLE 893: Outreach Clinical Service II. (12 credit hours)**

Forty-eight clinic hours per week in the off-campus Outreach Clinical program.

#### **CLE 894: Outreach Clinical Service III. (12 credit hours)**

Forty-eight clinic hours per week in the off-campus Outreach Clinical program.

## **ELECTIVE COURSES**

#### **BVS 801: Nutrition and Preventative Health (1 credit hour)**

This course is designed to address the growing student, practitioner, and public interest in nutrition and preventative healthcare. This course will introduce students to the basics of nutrition and health for both ocular and systemic conditions. Additional focus will be placed on ocular nutrition and supplements. This course also aims to expand student knowledge regarding ocular nutrition to improve patient education. Students will be exposed to up-to-date research and resources to stay current on nutrition and preventative healthcare recommendations. The assignments and final project will require students to apply and share their knowledge.

#### **CLS 801: Advanced Diagnosis and Management of Dry Eye. (2 credit hours)**

This course will provide an overview of recent knowledge relative to clinical dry eye. An emphasis will be placed on advanced understanding, including test efficacy, assignment of sub-types and current management approaches. Therapeutic management will include mechanical and pharmaceutical strategies to control inflammation and stimulate tear flow. This course emphasizes the student's learning to provide them the information and practical skills to allow them to develop a dry eye center of excellence in a primary care setting.

#### **CLS 802: Interpretation and Application of Imaging Technology. (2 credit hours)**

The purpose of this course is for students to enhance their interpretation and application of advanced imaging technology for ocular disease patients in a clinical setting. Material will be presented in learning modules based on different imaging technology: optical coherence tomography, B-scan and fluorescein angiography. Strong emphasis will be placed on optical coherence tomography.

Clinically relevant diagnoses and disease management in clinical care will also be discussed to prepare students for 4th year rotations and patient care post-graduation.

**CLS 804: Applied Ocular Genetics. (1.5 credit hours)**

This course will cover the history and present integration of genetics and genomics into eye care, including current challenges and gaps in our understanding of the genetic basis of ocular conditions. We will cover the benefits and limitations of current genetic test panels for ocular conditions. We will address the current clinical guidelines for genetic testing and the incorporation of genetic testing into clinical practice. Additionally, we will cover the current state of ocular gene therapy and related research. We will define precision medicine and consider the anticipated changes in medical and optometric practice. We will cover additional considerations such as data privacy and ethics of genetic testing.

**CLS 805: Effective Learning Strategies for Optometry School. (1 credit hour)**

In this course, students will be introduced to common myths about learning and scientifically proven methods of learning. This course provides opportunities for practical application of course material to current optometry courses, including didactic, laboratory, and clinical.

# MASTER OF SCIENCE IN VISION SCIENCE

## PROGRAM OVERVIEW

The Master of Science in Vision Science prepares students to embark on a career in teaching and/or research in the basic or clinical science of vision. Students accepted into the program must be enrolled at SCCO at MBKU in the professional optometry program, hold a Doctor of Optometry or Doctor of Medicine degree, or hold a bachelor's degree from a university in the U.S. or Canada.

The need for new knowledge in the vision sciences is great; teaching and research opportunities are numerous in a spectrum of academic, industrial and professional settings. Although the program has sufficient structure to provide a broad foundation of scientific knowledge of vision systems, it is at the same time appropriately flexible to permit candidates to develop expertise in areas of special interest.

There are five tracks currently offered.

1. A concurrent program for students currently applying to or enrolled in the SCCO Doctor of Optometry program.
2. Stand-alone full-time two-year program for students with an earned Doctor of Optometry or Medical degree.
3. Stand-alone full-time program for students with an earned bachelor's degree from a University in the United States or Canada.
4. Combined two-year Master of Science and residency program for individuals with an earned Doctor of Optometry degree.
5. Part-time program for individuals listed in 2 and 3 above.

All of these tracks incorporate the development and presentation of seminars and formal lectures in specific courses to develop the candidates' educational skills.

The Master of Science in Vision Science tracks require the equivalent of two years full-time study, including 20 quarter credit hours for core and elective didactic coursework, as well as a minimum of 40 credit hours of research, culminating in a written thesis.

## ADMISSIONS

The Master of Science in Vision Science is a research-based graduate degree. Research is a vital part of the ongoing development of the profession since it provides the basis for new understanding and new treatments of vision conditions. The research undertaken in fulfillment of the Master of Science degree will provide new knowledge for the profession and train the candidate in the conduct of sound research as a potential future educator and researcher.

SCCO's Master of Science in Vision Science program at MBKU seeks to admit students possessing the qualities and motivation necessary for success in clinically applied research. Admission is based on an assessment of both academic and non-academic qualifications including; an application, letters of recommendation, personal statement and the admissions interview.

All applicants must submit undergraduate and graduate transcripts with a minimum grade point average of 3.00, an application which may be obtained from the website [ketchum.edu/optometry/ms\\_in\\_vision\\_science](http://ketchum.edu/optometry/ms_in_vision_science), and a \$75 non-refundable application fee, letters of recommendation attesting to the applicant's ability in the area of research, a 300-500 word personal statement of interest, including current goals, personal career plans, reasons for selecting a field of study and a current curriculum vitae. In addition, applicants interested in concurrent Doctor of Optometry and Master of Science in Vision Science enrollment must submit OAT scores (or other appropriate test results, such as, MCAT, DAT, or GRE). Applicants who already hold the Doctor of Optometry degree must submit NBEO scores. Applicants interested in the combined residency and Master of Science in Vision Science program must have submitted an ORMS application.

Additional requirements for applicants who are not U.S. citizens or permanent U.S. residents include having graduated from an optometry or medical school that has comparable training to a U.S. optometry or medical program. Applicants need to be English speaking or have demonstrated satisfactory command of the English language by taking the Graduate Record Examination (GRE) and the Test of English as a Foreign Language (TOEFL). The TOEFL can be replaced by the International English Language Testing System (IELTS). The minimum acceptable scores are: GRE (300), TOEFL (80), TSE (50) and IELTS (7.0). All tests must be taken within two years of applying for the Master of Science in Vision Science program.

All foreign applicants will need to provide proof of adequate funds to cover all fees and expenses for the entire graduate program as a condition for the issuing of a visa to enter the U.S. These applicants are not eligible for funding (e.g., teaching assistant, research assistant, school grants or aid) to pursue the Master of Science degree. Interviews are required of all applicants.

The application deadline for individuals applying for the combined OD/MS program is the end of the Fall quarter of their first year in the OD program. Other applicants should apply a minimum of 3 months before the quarter in which they wish to start the MS program.

### Accuracy of Information

The submission of any false or misleading information of any kind in support of an application for admission to the graduate programs of the SCCO at MBKU can result in the permanent cancellation or rescission of admission by the assistant dean for graduate studies. It is the responsibility of the applicant that all information is accurate and complete.



## FINANCIAL INFORMATION

### Tuition

#### 2023-24 Tuition, Master of Science in Vision Science

The tuition for the Master of Science in Vision Science program is \$6,000 per quarter (4 quarters per year). Currently, this program tuition is waived for candidates also concurrently enrolled in the Doctor of Optometry program.

Annual Tuition & Fees	Full-Time Tuition	Class Fee	Mandatory Equipment & Materials	Student Association Fee	Graduation Fee	Total Annual Tuition and Fees
Class of 2023	\$6,000.00	NA	NA	NA	NA	\$6,000.00
Class of 2024	\$24,000.00	NA	NA	\$70.00	\$115.00	\$24,185.00
Class of 2025	\$18,000.00	NA	NA	\$70.00	NA	\$18,070.00

Quarterly Tuition & Fees	Summer	Fall	Winter	Spring	Total Tuition & Fees
Class of 2023	\$6,000.00	NA	NA	NA	\$6,000.00
Class of 2024	\$6,000.00	\$6,070.00	\$6,000.00	\$6,115.00	\$24,185.00
Class of 2025	NA	\$6,070.00	\$6,000.00	\$6,000.00	\$18,070.00

Tuition (*less than full time*) per credit hour.....\$800

While the occasion has not previously presented itself, the MBKU Board of Trustees does reserve the right to change tuition and fees or to establish additional fees for special features or services if deemed necessary.

## CURRICULUM

The Master of Science in Vision Science is a research-based graduate degree. Research is a vital part of the ongoing development of the profession and is incorporated into the mission statement of SCCO. The program emphasizes hypothesis-driven research and the development of analytical skills in experimental optometry and vision science.

Each of the program tracks incorporates the development and presentation of seminars and formal lectures in specific courses to develop the students' skills in scientific presentations. Moreover, all degrees incorporate the design and conduct of an original research project, a written thesis and defense of the thesis before a graduate committee.

The required coursework taken in the Master of Science in Vision Science program provides the student with an in-depth understanding of vision science principles and concepts. The elective coursework further emphasizes the specific sub-discipline that is of interest to the student. The research undertaken in fulfillment of the Master of Science degree will provide new knowledge for the profession and train the student in the conduct of sound research. Thus, the background in the required and elective coursework combined with the research training prepares the student to enter a career as an educator and/or researcher. This career could be in an academic, institutional, corporate, or clinical setting.

## GRADUATION REQUIREMENTS

Completion of the program requires a total of 60 credit hours. 40 credit hours are from research thesis (BVS 960). The remaining 20 credit hours are course work which includes three required courses (BVS 901, BVS 902, and BVS 952), 2 core courses, and 2 elective courses.

A student will be recommended for the degree of Master of Science in Vision Science, provided the candidate:

- Has completed all prescribed academic requirements;
- Has completed a minimum of 60 quarter-hours of graduate credit;
- Is not on academic probation in the MS program, has a cumulative grade point average of 3.0 or higher, and has no outstanding grade which is incomplete;
- Has completed the Master's research requirement of successful defense of the Master's thesis and submission of a final bound copy of the thesis. The paper must be of publication quality.

The degree will not be conferred, and the diploma will not be issued until all graduation requirements are met.

## TRANSFER POLICY

The Master of Science in Vision Science program does not accept transfer students or offer advanced standing under any circumstances.

## COURSES

### Required Courses:

#### **BVS 901: Teaching in the Vision Sciences. (2 credit hours)**

Clinicians with additional scientific/research training (clinician-scientists) are invaluable to the growth of the vision field. In particular, such individuals can contribute greatly to higher education programs in optometry and vision science. A foundation in teaching those aspects specific to vision science is critical to acquire for future success in academia. Teaching methodology can be broadly applied to both didactic and clinical courses. This course will be presented in seminar format with assigned readings and several practical assignments to assess whether the learning objectives have been met.

#### **BVS 902: Biostatistics. (2 credit hours)**

Statistics is an essential discipline in the field of research, important first in understanding the scientific literature relative to validity and appropriateness, and later to the conduct of the student's thesis project. A researcher needs to have a solid working knowledge of the various types of research data and how these were obtained, the distribution of those data, and formal hypothesis testing using those data to draw conclusions regarding the import of the findings. This course will examine the numerical and graphical representation of data, the concepts of sample size, data distributions and appropriate hypothesis testing, inferences regarding dependent and independent data, and parametric and non-parametric evaluation. A free statistical shareware, "R" software, will be used by the student to undertake sample problem analysis to further cement the understanding of the lecture concepts.

#### **BVS 952: Ethics in Research. (2 credit hours)**

Through reading, discussion and writing, students will gain sensitivity for and knowledge of social ethics and the social context of scientific research. They will have knowledge of those elements of ethics, good scientific practice and law that are essential to perform research in the biomedical disciplines, with or without human subjects. They will have knowledge and skills to develop and implement effective, ethical research projects. The course content is organized in three strands: an introduction to ethics, the human subject and research integrity.

#### **BVS 960: Research Thesis. (variable credits)**

The Master of Science in Vision Science emphasizes the development and execution of an original vision research project. Each student must write a paper based on the student's research activities. The paper must be of publication quality. A Master's thesis describing this project is required for completion of the program and will be reviewed by a Thesis Committee. Time spent planning, carrying out the research project, data analysis and writing the thesis will be assigned BVS 960. This can be from 1-12 credit hours per quarter. Total minimum credit hours required for the thesis is 40 credit hours. This also requires a defense of the thesis. The maximum number of credits that can be taken for BVS 960 is 50.

### Core Courses:

#### **BVS 910: Ocular Anatomy and Physiology. (2 credit hours)**

Knowledge of the anatomy and physiology of ocular structures is one of the requirements for not only the practice of optometry but also research in this field. This course will supplement the ocular anatomy and ocular physiology courses taught to all Optometry students and concentrate on areas which are most likely to be studied in optometric research. The course will require independent study and group discussion. Each student will prepare and conduct a literature review on an anatomic area and present it in a seminar format.

#### **BVS 910A: Ocular Anatomy and Physiology. (4 credit hours)**

Knowledge of the anatomy and physiology of ocular structures is one of the requirements for not only the practice of optometry but also research in this field. This course will review the basic ocular anatomy and ocular physiology material taught to all Optometry students and concentrate on areas which are most likely to be studied in optometric research. The course will require independent study and group discussion. Each student will prepare and conduct a literature review on an anatomic area and present it in a seminar format.

#### **BVS 920: Sensory Neuroscience. (2 credit hours)**

Sensory neuroscience is a subfield of neuroscience which explores the anatomy and physiology of neurons that are part of sensory systems such as vision, hearing, and olfaction. This course will focus on vision. Visual neuroscience is the study of the visual system

including the visual cortex. Its goals are to understand the neurophysiology of the visual system, and to understand how neural activity results in visual perception and behaviors that depend on vision.

**BVS 920A: Sensory Neuroscience. (4 credit hours)**

Sensory neuroscience is a subfield of neuroscience which explores the anatomy and physiology of neurons that are part of sensory systems such as vision, hearing, and olfaction. This course will focus on vision. Visual neuroscience is the study of the visual system including the visual cortex. Its goals are to understand the neurophysiology of the visual system, and to understand how neural activity results in visual perception and behaviors that depend on vision.

**BVS 940: Visual Optics. (2 credit hours)**

The eye is studied as the physiological optical element of the visual system. The optical components of the eye are discussed in terms of their geometrical, physical, physiological, psychophysical, and optical properties. The eye is considered as an image forming mechanism, where each component contributes to the nature and quality of the retinal image. The relationship between optics and visual performance is discussed, including the effects of ametropias and oculomotor systems on vision. Students will demonstrate their ability to search and evaluate the visual optics literature and to communicate effectively through writing and in small group discussions.

**BVS 940A: Visual Optics. (4 credit hours)**

Students in this course will learn about the optics of the human eye. They will rely on their present knowledge of geometrical and physical optics, and apply this knowledge to a study of the eye. They will understand how the optical characteristics of the eye relate to the performance of the visual system as a whole. Importantly, they will learn how the optics of the eye affects performance in everyday activities. They will learn about normal variation in the optical characteristics of the eye, and the optical consequences of various ocular conditions and clinical treatments and procedures. Students will be able to integrate what they know to find solutions to practical problems in vision. They will demonstrate their ability to search and evaluate the scientific literature, and to communicate effectively through writing and in small group discussions.

**BVS 950: Sensory Processes and Perception. (2 credit hours)**

The purpose of the course is the study of sensory processes which encompass three areas of vision function important to scientists: the perception of light, form, and color. Students will examine spatial vision and temporal vision, the field of vision, the range of color vision and many other areas of current vision research. The course will be presented through a roughly equal division between lecture and laboratory and will require presentation of a proposal for a research study related to the material in the course.

**BVS 950A: Sensory Processes and Perception. (4 credit hours)**

A foundation in vision science is rooted in the underpinnings of basic sensory processes. The study of sensory processes encompasses three areas of vision function important to scientists: the perception of light, form, and color. This knowledge is routinely used by vision scientists when conducting research studies examining spatial vision and temporal vision, the field of vision, the range of color vision, and many other areas of current vision research. The course will be presented through a roughly equal division between lecture and laboratory and will require presentation of a proposal for a research study related to the material in the course.

**BVS 951: Psychophysical Methods and Experimental Design. (2 credit hours)**

The purpose of this course is to provide a framework into which study methodologies are executed. Content of the course includes photometry and luminance calibration, signal detection theory, ROC analysis and systematic experimental design. The course will be presented through a roughly equal division between lecture and laboratory and will require presentation of a well-developed experimental design proposal for a research study.

**BVS 951A: Psychophysical Methods & Experimental Design. (4 credit hours)**

A foundation in vision science is rooted in the underpinnings of the various methods and experimental designs used to answer the scientific questions that are asked. The psychophysical methodology/approach is the historical root of vision science. It often precedes, and often drives, the neurophysiological studies that seek to resolve and/or explain the psychophysical findings. Knowledge of the general methods/designs used in psychophysical based research serves to provide a framework into which study methodologies are executed within. The course will be presented through a roughly equal division between lecture and laboratory and will require presentation of a well-developed experimental design proposal for a research study.

**Elective courses:**

**BVS 900: Special Topics. (1-4 credit hours)**

Individual study and advanced topics in the vision sciences.

**BVS 911: Vegetative Physiology of the Eye (3 credits hours)**

This course will cover the chemical properties of the various structures in the eye (i.e., aqueous humor, lens, vitreous body). The swelling pressure, transport processes, and optics of the cornea and sclera will be covered. The metabolism of the cornea, lens and retina will also be discussed.

**BVS 912: Visual Physiology of the Eye (3 credit hours)**

This course covers fundamental information and concepts on the anatomy, cell and molecular biology, biochemistry and physiology of the retina and vision related areas of the brain, and fundamental information and concepts on visual optics, and sensory aspects of vision.

**BVS 913: Current Topics in Tear Film and Dry Eye. (3 credit hours)**

In recent years the tear film and ocular surface has been the subject of intense interest and research, due in part to the recognition that ocular surface disease is a common condition with major implications for sufferers' quality of life. This course will provide an overview of current knowledge relative to ocular surface and tear film structure and dynamics, including what is currently known and unknown concerning tear composition and behavior. Clinical topics such as the factors that influence tear film stability and the mechanisms of corneal staining will be examined from current evidence to provide a translational understanding of basic mechanisms that influence the human ocular surface in health and disease. The course will be taught in a lecture format with hands-on sessions for demonstration and experience with instruments and techniques aimed at generating ocular surface and tear film information.

**BVS 914: Vegetative Physiology of the Cornea. (3 credit hours)**

This course will describe the anatomy and physiology of the normal cornea in depth. It will provide an understanding of the various diseases and dystrophies of the cornea from an etiological basis. The course will allow the student to understand the interplay between contact lens complications and normal/abnormal corneal physiology. This will be accomplished by reviewing the literature in this area.

**BVS 921: Color Vision. (3 credit hours)**

Color vision is an active area of both clinical and basic science research. Clinical color vision research requires an understanding of more rigorous testing and research methods used in color vision studies. The course will be presented through a roughly equal division between lecture and laboratory and will require presentation of a well-developed experimental design proposal for a research study.

**BVS 924: Neurophysiology of Amblyopia. (3 credit hours)**

Our knowledge of the anatomy and physiology of the visual pathway has expanded greatly over the last few decades. This increase in knowledge has to a large extent been driven by investigations into the neural abnormalities resulting from amblyopia. Without a clear understanding of the neurophysiological basis of amblyopia, treatments for this condition cannot be developed. This course will supplement the Neurophysiology course taught to all SCCO students and concentrate on areas dealing with amblyopia. The course will require independent study and group discussion. Each student will prepare and conduct a literature review on an area of interest and present it in a seminar format.

**BVS 932: Ocular Pathology (3 credit hours)**

This course is designed to introduce the graduate student to concepts in ocular diseases. Topics will include genetics and pathophysiology of glaucoma, photoreceptor degenerations, dry eye, contact lens effects on the eye and infection/inflammation, new therapeutic approaches and current research topics.

**BVS 957: Accommodation. (3 credit hours)**

Human ocular accommodation is studied from a functional viewpoint, with an aim of understanding its role in daily life. Accommodation is introduced by way of J. J. Gibson's question of how depth is extracted from retinal images. Empirical data on the nature of the steady state and dynamic characteristics of accommodation are reviewed. Then, the stimuli to accommodation are studied within Heath's system of operational classification. Various external and internal factors in the accommodation response are investigated. The development of accommodation in infancy and childhood, and its normal decline with age (presbyopia), are studied. Theories of the ocular mechanism of accommodation are studied, including geometrical-optical and physical models of the crystalline lens in accommodation. Control system approaches to accommodation are introduced. The synkinesis between accommodation and vergence is discussed. The nature and causes of presbyopia and other accommodative anomalies are studied. Procedures and apparatus for measuring accommodation are studied, with opportunity to design and implement simple accommodation experiments with two common instruments.

**BVS 959: Vision and Reading. (3 credit hours)**

This course will provide an integrative approach to investigating associations between vision and reading. The first part of the course will review the basic processes that are involved in reading and learning to read. The next part of the course will investigate how

specific vision processes are involved in reading. This includes contrast sensitivity, temporal processing, fixation disparity, and span of recognition. Finally, clinical approaches to analyze the relationship between vision and reading will be discussed.

# MASTER OF SCIENCE IN CLINICAL OPTOMETRY

## PROGRAM OVERVIEW

The Master of Science in Clinical Optometry is a joint degree with Eulji University in South Korea. This degree provides the educational foundation to further develop the clinical skills of South Korean optometrists. Students accepted into the program must reside in South Korea, hold a Bachelor of Optometry Degree, and be an optician license holder. Advancing clinical skills helps to support growth in optometric education in South Korea. Graduates are more prepared to expand the current scope of practice and clinical privileges for optometry.

The two-year cohort-based program includes four semesters of didactic instruction and a ten-week clinical education capstone project. Education modules are delivered in a hybrid format with didactic courses taught by Eulji faculty in-person in South Korea and by MBKU faculty remotely. MBKU faculty travel to South Korea to deliver hands-on experiences in learning optometric procedures. The capstone is a clinical education externship in the United States where students experience direct patient care encounters. The program is approved by the Korean Ministry of Education and by the Western Association of Schools and Colleges (WASC) and requires 36.75 credit hours.

## ADMISSIONS

This joint Master of Science in Clinical Optometry program seeks to admit students interested not only in furthering personal clinical knowledge and skills but in moving forward the scope of practice in South Korea. Admission is based on both academic and non-academic qualifications. Applications are screened by an admissions committee at Eulji University then forwarded to the admissions committee at SCCO. The required prerequisites are: Current optician license holder, BS diploma in optometry, Essay showing strong motivation/desire for the profession of optometry, Letters of recommendation, and Volunteer/work experiences. In addition, MS applicants must meet a minimum criteria on the Test of English for International Communication (TOEIC) exam which is administered by YBM Education in South Korea. Once reviewed, qualified applicants are invited to a personal video conference interview.

Applications can be obtained from the Office of International Optometry at SCCO or Eulji University. A \$75 non-refundable application fee is required to be submitted to the Office of International Optometry at SCCO via Flywire. The application, letters of recommendation, personal statement, a current curriculum vitae, and TOEIC scores are all sent to the International Optometry office at Eulji University. Applications must be submitted by the end of the calendar year just prior to matriculation.

## FINANCIAL INFORMATION

Tuition is paid to both MBKU and Eulji University, independently. The MBKU portion is paid directly by the student via Flywire, which calculates the current exchange rate and includes any service/exchange fees. The Academic Year for this program is March to December. Tuition is due at the start of each semester. For 2023 and 2024, the MBKU portion of tuition is \$7,500 each semester, payable in March and September.

## CURRICULUM

The purpose of the program aligns with the vision of MBKU to reimagine the future of health care education and advance global health care. SCCO, a recognized leader in Optometric Education, will support the development of optometric education in South Korea. This program aligns with developing clinical skills for optometrists.

The curriculum incorporates pedagogical methods to address cognitive (knowledge), affective (attitude) and psychomotor (skill) learning domains. Examples of this methodology include classroom module content, small group case-based learning, lab workshops, problem-based learning, and clinical experiences. Module content presented by MBKU faculty will include online distance learning in mainly asynchronous modality. Module content will be given in English. Student responses and written assignments will also be written in English. Written work will be expected to follow NLM (National Library of Medicine) writing style guides. Basic analysis of research studies, including statistics, is introduced in Applied Biomedical Science (EUL501) and continues throughout the courses where applicable.

## GRADUATION REQUIREMENT

Degree conferral will be in December following successful completion of all requirements, but students may participate in the Commencement ceremonies in May of the following year.



## TRANSFER POLICY

The MS in Clinical Optometry does not accept transfer students or offer advanced standing under any circumstances. All applicants to our program must apply through the office of International Optometry and complete the entire two-year program.

## COURSES

Completion of the program requires successfully passing 36.75 credit hours. The courses are as below:

### **EUL501: Applied Biomedical Science. (3 credit hours, taught by MBKU faculty virtually)**

This course integrates a review and clinical applications of Biochemistry, Genetics, Immunology, and Microbiology. Infections of the eye are discussed in relation to techniques for laboratory isolation, culturing, and identification of the infectious agents.

### **EUL502: Ocular Pharmacology. (3 credit hours, taught by MBKU faculty virtually)**

This fundamental course in pharmacology introduces the student to basic concepts of drug effects on body organs and systems, including the eye. The pharmacological actions, mechanisms, clinical applications, and potential adverse effects of systemic drugs in current clinical use are considered in detail. This course presents the pharmacology of drugs used for the prevention, diagnosis, and treatment of ocular diseases, and discussions of other drugs that may affect the eye.

### **EUL511: Advanced Visual Optics. (3 credit hours, taught by Eulji faculty in South Korea)**

This course is a continuation of the ophthalmic optics courses from the 4-year program offered at Eulji University. The goals of this course would be to provide advanced discussions in optics, lens options, and patient prescribing options in unusual and difficult situations.

### **EUL521: Advanced Cornea & Contact Lens. (3 credit hours – 2 credit hours didactic/1 credit hour lab, taught by Eulji faculty in South Korea)**

Continuing applications of gas permeable (GP) contact lens and soft contact lens fitting and management are presented. Contact lens wear complications and management options are discussed and prescribing strategies and patient management are discussed. Advanced contact lens topics, including scleral contact lenses, pediatric contact lenses, myopia control, and prosthetics are presented.

### **EUL551: Pediatrics. (2 credit hours, taught by MBKU faculty virtually)**

The diagnosis and management of common vision problems in young children requires an understanding of vision development, as well as the utilization of diagnostic procedures that are developmentally appropriate. This course provides diagnostic strategies for examining the infant, toddler, and preschooler. Application of pediatric tests for special needs children is presented, as well as the implication of ocular health on normal visual development. Management of common vision problems in the pediatric population is presented in a case discussion format.

### **EUL571A: Ocular Health Procedures I. (2.5 credit hours – 2.5 credit hours didactic, taught by MBKU faculty virtually)**

This course presents basic procedures and techniques in ocular health assessment for the optometrist. The principles, performance, and interpretation of various health assessment procedures utilized in clinical practice are discussed. A systemic, problem-oriented approach to the diagnostic evaluation of the eye and neuro-visual system is emphasized. Standards of care and medico-legal issues in ocular health assessment are presented.

### **EUL571L: Ocular Health Procedures I Lab. (0.5 credit hour lab, taught by MBKU faculty in South Korea)**

The laboratory provides experience in the use of the procedures taught in Ocular Health Procedures I, as well as the clinical utilization of pharmaceutical agents commonly used in primary care optometric practice. The laboratory requires that students actively participate as doctors and patients while learning these procedures. The laboratory presents examination procedures and techniques used in basic ocular health assessment for the optometrist practicing in the United States.

### **EUL631: Vision/Learning. (2 credit hours, taught by MBKU faculty virtually and in US)**

The course will give the student a systematic approach for the diagnosis and management of developmental visual information processing (DVIP) disorders. The role of the optometrist as part of a multidisciplinary team in evaluating children with learning disabilities will be emphasized. The course will provide a review of child development principles of standardized testing, learning disabilities, and dyslexia.

**EUL632: Non Strab VT; Strab/Amb VT. (3 credit hours – 2 credit hours didactic/1 credit hour lab, taught by Eulji faculty in South Korea)**

This course will cover the diagnosis and management of non-strabismic binocular vision conditions including anomalies of the vergence, accommodation, and ocular motor systems. A range of treatment options will be discussed, including lenses, prisms, and vision therapy. Active vision therapy utilizing a sequential approach will be emphasized.

**EUL641A: Case Discussions/Presentations. (1.5 credit hours, taught by Eulji faculty in South Korea)**

The purpose of this course is to effectively integrate the information presented in the prior clinically based courses. Utilizing an interactive, small group case discussion format, students will be able to enhance their abilities in proper differential diagnosis testing protocol, treatment and management, and patient education of conditions the practicing optometrist will encounter.

**EUL661: Low Vision/Geriatric Optometry. (3 credit hours, taught by MBKU faculty virtually)**

The course introduces the principles of vision rehabilitation with respect to the geriatric and visually impaired populations. The topics presented include the clinical characteristics of aging, etiology, and visual impairment, demographics, and psychosocial factors of geriatric and visually impaired patients, the case history and clinical examination of these patients, and optics of treatment options for the visually impaired. Also discussed are the performance characteristics of optical and non-optical treatment options for the visually impaired; assessment, treatment, and management of geriatric and visually impaired patients; development of a vision rehabilitation plan; the multidisciplinary team approach to rehabilitation; and patient communication and education.

**EUL661A: Low Vision Geriatric Optometry Lab. (0.75 credit hour, taught by MBKU faculty in US)**

The laboratory presents examination procedures and techniques utilized for geriatric and visually impaired patients in traditional and non-traditional settings; motility procedures; geriatric case management; and an introduction to rehabilitation optics and optical systems for visual impairment. The performance characteristics and clinical application of optical and non-optical treatment options for visual impairment are presented.

**EUL672: Topics in Ocular Disease. (3 credit hours, taught by MBKU faculty virtually)**

This course presents a comprehensive discussion of anterior segment diseases and disorders, posterior segment diseases and disorders, and systemic disorders affecting the eye. Pathophysiology of ocular tissues is related to the disease processes to provide a strong understanding of the ocular disease presentation and patient symptomatology. Clinical and laboratory evaluation is discussed along with the diagnosis, treatment, and management of ocular diseases. Current management strategies will emphasize the utilization of appropriate therapeutic agents and modalities for proper follow-up care. Selected readings help to emphasize current thoughts on treatment and management. Emphasis is placed on clinical presentation and appropriate use of diagnostic modalities, including new technologies. Therapeutic strategies emphasize medical and surgical management, co-management, and follow-up care.

**EUL 741: Advanced Topics Workshop. (0.25 credit hour, taught by MBKU faculty in US)**

The course provides in-person seminars and discussions of advanced topics to supplement the curriculum. Students will have the opportunity to hear from topic experts and to interact with other health care professionals.

**EUL 741A: Case Analysis. (1.5 credit hours, taught by MBKU faculty in US)**

The course provides in-person seminars and discussions of advanced topics to supplement the curriculum. Utilizing an interactive, small group case discussion format, students will be able to enhance their abilities in proper differential diagnosis testing protocol, treatment and management, and patient education of conditions the practicing optometrist will encounter.

**EUL742: Capstone: Clinical Education. (4.5 credit hours, taught by MBKU faculty in US)**

As a capstone, practical application of the clinical skills taught in prior courses in preparation for clinical practice. Students will conduct eye examinations under the direct supervision of expert clinical faculty. Opportunities for the clinical education experiences will be at selected clinical settings in the United States. There will be exposure to primary care, ocular disease, contact lenses, vision therapy and pediatrics, low vision, optical, specialty clinics, ophthalmology, and grand rounds.

**EUL 772: Ocular Health Procedures II. (0.50 credit hour, taught by MBKU faculty in US)**

The laboratory provides experience in the use of the procedures taught in Ocular Health Procedures I and II lectures, as well as the clinical utilization of pharmaceutical agents commonly used in primary care optometric practice. The laboratory requires that students actively participate as doctors and patients while learning these procedures.

Students will need to enter the U.S. under an F-1 visa during the final semester of the program. Expenses incurred in the application process are the responsibility of the student and students should allow sufficient time for processing. As a condition for issuing the visa students are required to provide proof of adequate funds to cover all fees and expenses for the final semester. All travel and housing arrangements are the responsibility of the student.

# COLLEGE OF HEALTH SCIENCES

## SCHOOL OF PHYSICIAN ASSISTANT STUDIES

### MASTER OF MEDICAL SCIENCE

#### MISSION

Our mission is to educate individuals to become competent and compassionate Physician Assistants who provide the highest quality health care in a collaborative environment, are dedicated to their communities, and advance the PA profession.

#### OUR VALUES

##### Compassion

We value the dignity of our patients and their families and recognize compassion must be a cornerstone of our professional interactions.

##### Integrity

We value integrity and professionalism by modeling honesty, thoughtfulness, and consistency in our words and actions.

##### Lifelong Learning

We value lifelong learning as an essential component of quality education and ongoing evidence-based medical care.

##### Excellence

We value the pursuit of excellence as a standard of quality for the PA profession.

##### Respect

We value the highest level of respect by advocating the virtue of inclusion while embracing the differences within communities where we serve, work, and teach.

##### Service

We value service for humanity and are committed to the welfare of others.

#### PROGRAM OVERVIEW

Marshall B. Ketchum University provides the highest quality PA education through excellence in teaching, patient care, research, and public service.

The College of Health Sciences' School of Physician Assistant Studies offers a 27-month, post-baccalaureate program leading to the degree of Master of Medical Science. The class size is 40 students.

The didactic phase of the PA curriculum provides the foundation for clinical practice with instruction in applied medical sciences, patient assessment, clinical medicine, and pharmacotherapeutics. The curriculum is organized into systems-based courses which incorporate anatomy, physiology, pathophysiology, clinical medicine, clinical skills, patient assessment, diagnostic testing, and pharmacotherapeutics taught in an organized and integrated sequence with a strong emphasis on active learning. Other courses include medical ethics, DEI in healthcare, graduate seminars covering a wide-range of professional practice topics, evidence-based practice, and population and public health. Students will also participate in interprofessional education courses and will experience supervised patient interactions.

The clinical phase of the PA curriculum focuses on direct patient care in various clinics, hospitals, and health centers. The program offers a vast array of clinical opportunities with diverse and challenging patient encounters. In order to graduate from the School of Physician Assistant Studies Master of Medical Science Program, a student must complete and pass each course, clinical rotation, Masters Capstone Project, and multi-faceted summative evaluation.

The Master's Capstone Project involves two components: 1) students work in small teams to conduct a review of literature and needs analysis in order to identify a population healthcare need. The students then develop and implement a project that addresses the healthcare need. 2) Students develop a scholarly poster and presentation that meets national and/or state conference standards.

#### ADMISSIONS

The School of Physician Assistant Studies (SPAS) is committed to accepting a diverse group of qualified individuals from a variety of backgrounds and experiences in accordance with MBKU's nondiscrimination policy. Each application is reviewed and the merits are considered individually. Additional consideration is given to applicants with volunteer community service, qualifying science degrees, military experience (verifiable by DD-214), or applicants in the Pre-Health Professions Linkage programs at Cal State Fullerton, Cal State Long Beach or Cal State Los Angeles.

We do not accept previous experience or medical training for advanced placement in the Master of Medical Science program. All students are expected to complete all didactic and clinical elements of the program. The School of Physician Assistant Studies does not permit students to matriculate on a part-time basis, nor does the curriculum lend itself to an accelerated learning schedule.

## Criteria

### Technical Standards

PAs must have the knowledge and skills to practice in a variety of clinical situations and to render a wide spectrum of care based on the patient's needs. In addition to academic achievements, exam results, and faculty recommendations, PA students must possess the physical, emotional and behavioral capabilities requisite for the practice of medicine as a PA. In order to successfully complete the PA program, students must demonstrate proficiency in academic and clinical activities with regard to the competencies described below.

### Observation

Candidates and PA students must have sufficient sensory capacity to observe in the classroom, the laboratory, the outpatient setting and at the patient's bedside. Sensory skills adequate to perform a physical examination are required including functional vision, hearing, smell, and tactile sensation. All these senses must be adequate to observe a patient's condition and to accurately elicit information through procedures regularly required in a physical examination, such as inspection, auscultation, percussion, and palpation.

### Communication

Candidates and PA students must be able to:

- Communicate effectively and sensitively with patients and others in both academic and healthcare settings.
- Speak clearly.
- Communicate effectively and efficiently in oral and written English with faculty and staff, patients, and all members of the health care team. Communication includes not only speech, but also reading and writing skills.
- Demonstrate reading skills at a level sufficient to accomplish curricular requirements, provide clinical care for patients and complete appropriate medical records, documents and plans according to protocol in a thorough and timely manner.
- Perceive and describe changes in mood, posture, activity and interpret non-verbal communication signs.

### Motor coordination and function

Candidates and PA students are required to possess motor skills sufficient to directly perform palpation, percussion, auscultation, and other basic diagnostic procedures; and execute motor movements reasonably required to provide basic medical care and emergency care to patients, including but not limited to:

- Cardiopulmonary resuscitation.
- Administration of intravenous medication.
- Application of pressure to stop hemorrhage.
- Opening of obstructed airways.
- Suturing of simple wounds.
- Performance of simple obstetrical maneuvers.
- Negotiating patient care environments and mobility between settings, such as clinic, classroom, laboratory and hospital.
- Maintaining sufficient physical stamina to complete the rigorous course of didactic and clinical study. Long periods of sitting, standing or moving are required in classroom, laboratory and clinical settings.

### Intellectual-conceptual, integrative and quantitative abilities

These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving, the critical skill demanded of PAs, requires all of these intellectual abilities. Candidates and PA students must be able to:

- Interpret dimensional relationships and understand the spatial relationships of anatomical structures.
- Search, read and interpret medical literature.

The ability to incorporate new information from peers, teachers and the medical literature in formulating diagnoses and plans is essential. To complete the PA program, candidates must be able to demonstrate proficiency of these skills and the ability to use them together in a timely fashion during medical problem-solving and patient care.

### Behavioral and social attributes

Compassion, integrity, ethical standards, concern for others, interpersonal skills and motivation are all personal qualities important to providing compassionate and quality patient care.

Candidates and PA students must:

- Demonstrate the maturity and emotional stability required for full use of their intellectual abilities.

- Accept responsibility for learning, exercising good judgment and promptly completing all responsibilities attendant to the diagnosis and care of patients.
- Understand the legal and ethical aspects of the practice of medicine and function within both the law and ethical standards of the medical profession.
- Interact with patients, their families and health care personnel in a courteous, professional and respectful manner.
- Tolerate physically taxing workloads and long work hours, to function effectively under stress and to display flexibility and adaptability to changing environments.
- Contribute to collaborative, constructive learning environments; accept constructive feedback from others; and take personal responsibility for making appropriate positive changes.

It is our experience that a number of individuals with disabilities, as defined by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, are qualified to study and work as health care professionals and scientists with the use of reasonable accommodations. To be qualified for health sciences programs at MBKU those individuals must be able to meet both our academic standards and the technical standards, with reasonable accommodations if necessary.

For further information regarding services and resources for students with disabilities and/or to request accommodations, please contact the Office for Student Affairs.

## Prerequisites

We recommend that applicants possess a minimum GPA as follows:

- Overall GPA of 3.0 or higher
- Science GPA of 3.0 or higher

### Degree Prerequisite

A baccalaureate degree from a regionally accredited college or university, or an equivalent institution as determined by Marshall B. Ketchum University, is required for admission.

Applicants educated outside the U.S. must utilize an approved transcript evaluation service to verify their degree and course work. The academic record must show credits and grades equivalent to those given by U.S. institutions of higher learning. If the degree was obtained outside the U.S. the Test of English as a Foreign Language (TOEFL) must be completed and official scores submitted to MBKU using the school's code: 4893.

### Coursework Prerequisites

The following courses must be completed at a regionally accredited institution in the U.S., with a grade of "C" or better and are the minimum requirements for all applicants. A "Pass" grade will also be accepted.

#### **12 semester or 16 quarter credit hours of Biological Science courses which must include:**

- Microbiology w/ lab
- Human Anatomy w/lab (Must be taken in the last 7 years)
- Human Physiology w/lab (Must be taken in the last 7 years)
- Other biological sciences, any area

#### **One course (3 semester or 4 quarter credit hours) of each of the following:**

- Biochemistry or Organic Chemistry
- Statistics
- General Psychology
- Genetics (no lab required)

Advanced Placement (AP) credits will be accepted for Psychology and Statistics only.

All prerequisites must be completed at a college or university accredited by one of the U.S. regional accrediting associations. Please see Accrediting Institutions for a list of those associations. To verify a college or university accreditation, you are advised to visit their website.

### Online Course Policy

MBKU accepts prerequisite lecture courses completed online through regionally accredited U.S. colleges or universities. Please see [Accrediting Institutions](#) for a list of those associations. No virtual labs are accepted however hands-on, take home labs will be accepted. If you have any questions or would like to verify that a specific lab meets our requirements, please email [paadmissions@ketchum.edu](mailto:paadmissions@ketchum.edu).

## Requirements In Progress

Applicants may submit their CASPA application with two prerequisites in-progress. However, all admissions requirements, degree, and coursework prerequisites must be completed by December 31. Applicants should be aware; some universities have lag times in producing official transcripts which could impact their ability to be considered for admission.

## Clinical Experience

Patient care experiences will be considered on a case-by-case basis. Both the hours and the quality of patient interactions are evaluated. **All applicants must have at least 2000 hours of verifiable, direct, hands-on patient care experience to be eligible to apply.**

Examples of preferred clinical experiences:

- Back Office Medical Assistant (MA)
- Certified Nurses' Assistant
- Clinical Care Extender
- EMT (patient care hours only)
- Licensed Vocational Nurse
- Military medic or corpsman
- Paramedic
- Physical Therapy Assistant
- Radiological Technician
- Registered Nurse
- Respiratory Therapist
- Medical Scribe

## Foreign Applicants

The School of PA Studies does not accept international applicants at this time. U.S. applicants with foreign coursework must meet the following requirements:

1. You must have completed all the prerequisite courses in the U.S. Please note that even if you have taken the prerequisite courses as part of your undergraduate degree in a foreign university, you will need to repeat the prerequisite courses at a college or university in the U.S.
2. You must send all non-U.S./Canadian transcripts to CASPA (the centralized application service utilized by PA programs).
3. While the prerequisite courses are not accepted from a foreign university, the transcript to verify a degree and license is required. Applicants should have their foreign (Non U.S./Canadian) transcripts evaluated by one of the approved services and the evaluation forwarded to CASPA.
4. If the degree is obtained outside the U.S. the TOEFL must be completed and official scores submitted to MBKU using the school's code: 4893.

## Test Scores

Scores from the Graduate Records Examination (GRE) are not required. Applicants who have not earned a baccalaureate degree from a regionally-accredited U.S. institution must also submit official scores from the Test of English as a Foreign Language (TOEFL), regardless of the official language of the country in which the education took place or the predominant language of the degree-granting institution. Scores should be sent directly using Marshall B. Ketchum University Code 4893.

Minimum scores are noted below:

Reading	22/30
Listening	22/30
Speaking	26/30
Writing	24/30



## Procedures

All applicants to the School of PA Studies at MBKU must submit their application through the Centralized Application Service for Physician Assistants (CASPA). The website for the service is [portal.caspaonline.org](http://portal.caspaonline.org). All applicants should review the information and instructions on the CASPA website for submitting transcripts and letters of recommendation. Applicants will only have to submit transcripts and letters of recommendation to CASPA, not to the individual schools and colleges.

Upon completion of the application, applicants may designate MBKU as a school to receive the application.

All application documents MUST be submitted by the September 1<sup>st</sup> deadline to be eligible for admission. No exceptions will be considered. A “complete date” status is given when an application has been e-submitted and all transcripts, payments, and at least three letters of recommendation have been received by CASPA and attached to the application.

### Letters of Recommendation

Three (3) letters of recommendation are required. Reference letters should not be from personal friends or family members. Letters of recommendation must be submitted directly to CASPA by September 1. It is strongly recommended that letters of recommendation include at least one from a clinician (MD/DO/PA/NP preferred) and at least one from someone the applicant has known for at least 6 months. Again, we strongly recommend documents be sent to CASPA at least two weeks prior to the September 1st deadline to ensure the applicant receives the CASPA “complete date” by the deadline.

## Process

Once the CASPA application is received by the admissions office, applicants will receive an email with a link granting access to the MBKU portal, [my.ketchum.edu](http://my.ketchum.edu). Applicants must submit the non-refundable \$50 supplemental application fee.

The number of applicants to the School of PA Studies at MBKU exceeds the number of available seats. Some applicants will not be admitted even though their academic records surpass the specified minimum recommendations and requirements. We aim to select students who demonstrate academic strength and capability, motivation, and personal attributes necessary for the practice of medicine as a PA.

The admissions process begins with a screening of each applicant’s scholastic qualifications, including college records and prerequisite completion. This is done in multiple steps. First is a screening of each applicant’s degree and coursework prerequisites for admission. Only those applicants who have completed all of the required courses and degree move to the second stage. Applicants who have met all the required prerequisites are then reviewed for completion of their direct patient care experience. Third, applicants move to the next stage based on the totality of their GPA, academic qualifications, type and number of patient care experience hours, and any military experience.

Next, the applicant’s personal qualifications (essay, letters of recommendation, honors, awards, extracurricular activities and community service, etc.) are evaluated and reviewed by members of the Admissions Committee, as the study and practice of a PA requires great responsibility, maturity, ethics, devotion, intellectual curiosity, and social commitment.

Those who meet the academic, clinical, and personal criteria of the preliminary screening may be considered for an interview with the School of PA Studies at MBKU.

Additionally, the interviewing team aims to appraise such personal qualities as communication skills, problem solving skills, interpersonal skills, emotional intelligence, maturity and career motivation. Applicants will interview with various members of SPAS faculty as well as practicing PAs from the community, or other MBKU faculty and partners. Applicants are invited to matriculate based on their total interview score and the number of available class seats.

Provisional acceptance is offered pending successful completion of a routine criminal background check.

Accepted applicants are required to submit a non-refundable matriculation fee of \$1500 within two weeks of their acceptance. The full \$1500 deposit will be credited to the Fall Quarter tuition upon their enrollment.

## ADVANCED PLACEMENT

We do not accept previous experience or medical training for advanced placement in the PA program. All students are expected to complete all didactic and clinical elements of the program.

## TRANSFER POLICY

The MBKU School of Physician Assistant Studies does not accept transfer students or transfer credits from other schools. All students are required to complete the entire curriculum at MBKU School of PA Studies. Admission to advanced standing is not considered or accepted. The School of PA Studies does not allow students to take proficiency exams to test out of any course within the PA curriculum.

## FINANCIAL INFORMATION

Marshall B. Ketchum University is a private, non-profit, independent education institution. The Office of Financial Aid provides financial services and advice to assist our students in meeting the educational expenses necessary to complete the PA Program and achieve their dream of becoming a PA. The vast majority of students receive financial aid through federal and private loans as well as grants and/or scholarships.

The cost of attending the School of PA Studies is:

Annual Tuition	\$55,708
Annual Student Association Fee	\$70
Annual PA Student Class Fee	\$45
Parking Fee (annual)	\$335
Annual Equipment and Materials Fee	\$1,766.25 (varies by cohort and year)
Annual Clinic Fee	\$4,000
Books (varies)	\$300
Graduation Fee (one time)	\$115

### Tuition

#### 2023-24 Tuition, Master of Medical Science program

Annual Tuition & Fees	Full-Time Tuition	Class Fee	Clinic Fee	Mandatory Equipment & Materials	Student Association Fee	Graduation Fee	Total Annual Tuition and Fees
Class of 2023	\$27,854.00	NA	\$1,500.00	\$534.00	NA	\$115.00	\$30,003.00
Class of 2024	\$55,708.00	\$45.00	\$4,000.00	\$983.00	\$70.00	NA	\$60,806.00
Class of 2025	\$41,781.00	\$45.00	\$3,000.00	\$1,766.25	\$70.00	NA	\$46,662.25

Quarterly Tuition & Fees	Summer	Fall	Winter	Spring	Total Tuition & Fees
Class of 2023	\$14,944.00	\$15,059.00	NA	NA	\$30,003.00
Class of 2024	\$15,172.75	\$15,287.75	\$15,172.75	\$15,172.75	\$60,806.00
Class of 2025	NA	\$15,630.75	\$15,515.75	\$15,515.75	\$46,662.25

#### Tuition for returning students enrolled less than full time

Tuition (less than full time) per credit hour.....\$723.48

#### Fees

Annual Parking fee (optional).....\$335.00

#### Books

Nearly all of the required textbooks for the School of PA Studies are available as an e-book free of charge to enrolled students. Students may choose to purchase soft or hardbound text books at their own expense if they prefer. Required texts that are not available as an e-book are the students' responsibility and are estimated to be approximately \$300.

## Other Fees

During the clinical phase, students incur variable costs related to specific onboarding requirements for each clinical rotation site. These fees are paid directly to the vendor and not to MBKU. They include requirements such as updated background checks and drug screens. The total costs vary depending on where the student is placed for each clinical rotation and is estimated to be a maximum of \$900 for the entire clinical phase.

While the occasion has not previously presented itself, the Board of Trustees of Marshall B. Ketchum University does reserve the right to change the tuition and fees or to establish additional fees for special features or services if deemed necessary.

## CURRICULUM

The didactic phase of the PA curriculum provides the foundation for clinical practice with instruction in applied medical sciences, patient assessment, clinical medicine and pharmacotherapeutics. The curriculum is organized into systems-based courses which incorporate anatomy, physiology, pathophysiology, clinical medicine, clinical skills, patient assessment, diagnostic testing and pharmacotherapeutics instruction. Courses are taught in an organized and integrated sequence with a strong emphasis on critical thinking and active learning. Other courses include medical ethics, graduate seminars covering PA professional topics, population and public health, and evidence-based practice. In addition, students learn procedures including: sterile technique, venipuncture, IV placement, injections, airway management and endotracheal intubation, point of care ultrasound, urinary bladder catheter insertion, casting and splinting, local anesthesia, and wound management and closure. Students also participate in interprofessional education courses and will experience supervised and simulated patient interactions. Integration of the curriculum facilitates the development of knowledge that is relevant and meaningful to clinical practice and which is amenable to updating and development as a part of an ongoing process of lifelong learning. Students must successfully pass all didactic academic requirements in order to progress to the second phase of their education, clinical rotations.

The didactic courses include:

- Study of basic medical sciences, principles of genetics, and immunology to prepare students for the advanced study of clinical medicine.
- Advanced study of human anatomy with 3-D human anatomy laboratories.
- Advanced study of physiology, pathology and pathophysiology concepts of disease.
- Study of the epidemiology and etiology of disease states.
- Eliciting, performing and documenting the medical history and physical exam.
- Selecting, interpreting and applying appropriate laboratory, imaging and other diagnostic tests.
- Advanced study of disease states including the development of a differential diagnosis, most likely diagnosis, and prognosis of disease.
- Developing patient management skills related to the principles of pharmacology as they pertain to prescription and non-prescription therapeutic agents.
- Study of the behavioral health aspects of wellness and disease.
- Study of preventive health care, patient-centered healthcare, patient-centered education and health maintenance.
- Study of the clinical presentation of disease states across the lifespan.
- Identification and treatment of clinical emergencies.
- Study of current evidence-based healthcare principles.

The didactic interprofessional education courses are collaborative courses that instruct students across the colleges about the principles of interprofessional practice and allow students to practice interprofessional teamwork and communication skills in a classroom and small group setting.

The didactic professional courses and seminars are designed to provide students with instruction in evidence based practice to include critical review of the medical literature; advanced study of the PA profession, medical ethics, public and population health, and employment issues.

\* Specific sequence of courses subject to change

## First Year

Fall Quarter		
Course No.	Course Title	Units
PAS 550	Introduction to the PA Profession	1.00
PAS 524	Fundamentals of Anatomy	2.00
PAS 555	Applied Physiology	2.00
PAS 556	Pathophysiology	4.00
PAS 526	Infectious Disease and Immunology	4.00
PAS 528	Clinical History	2.00
PAS 529	Dermatology	4.00
PAS 530	Eye, ENT	5.00
PAS 531A	Evidence-Based Practice	2.00
IPE 406B	IPE Principles of DEI in Healthcare	0.75
IPE 401B	IPE: Professional Ethics	0.75
<b>TOTAL</b>		<b>27.50</b>

Winter Quarter		
Course No.	Course Title	Units
PAS 532	Pulmonology	5.00
PAS 533	Cardiology	6.00
PAS 534	Hematology	4.00
PAS 535	Nephrology	4.00
PAS 538	Gastroenterology	5.00
PAS 531B	Evidence-Based Practice	1.00
IPE 403B	IPE: Population and Public Health	2.00
<b>TOTAL</b>		<b>27.00</b>

Spring Quarter		
Course No.	Course Title	Units
PAS 536	Endocrinology	4.00
PAS 539	Orthopedics and Rheumatology	6.00
PAS 551A	Master's Capstone Project I	1.00
PAS 540	Neurology	6.00
PAS 541	Behavioral Health	2.00
PAS 557	Male Genitourinary Health	2.00
PAS 531C	Evidence-Based Practice	1.00
IPE 404B	IPE: Interprofessional Case Conferences	0.75
PAS 520	Integrative Patient Assessment Seminar	1.00
<b>TOTAL</b>		<b>23.75</b>

## Second Year

Summer Quarter		
Course No.	Course Title	Units
PAS 552A	Obstetrics and Gynecology	3.00
PAS 552B	Obstetrics and Gynecology	3.00
PAS 543	Pediatrics	5.00
PAS 547	Geriatrics	2.00
PAS 546	Hospital Medicine	4.00
PAS 551B	Masters Capstone Project I	1.00
<b>TOTAL</b>		<b>18.00</b>

Fall Quarter		
Course No.	Course Title	Units
PAS 544	Emergency Medicine	6.00
PAS 545	Surgery	3.00
PAS 612	Clinical Preparatory	6.00
PAS 609A	Master's Capstone Project II	3.00
IPE 400B	IPE: Medical Spanish (elective)	2.00
<b>TOTAL</b>		<b>20.00</b>

Winter Quarter		
Course No.	Course Title	Units
PAS 670	Medical Clinical Services I	6.00
PAS 671	Medical Clinical Services II	6.00
PAS 609B	Master's Capstone Project II	3.00
PAS 610A	Graduate Seminar I	1.00
IPE 405B	IPE: Preventing Burnout (elective)	1.00
<b>TOTAL</b>		<b>17.00</b>

Spring Quarter		
Course No.	Course Title	Units
PAS 672	Medical Clinical Services III	6.00
PAS 673	Medical Clinical Services IV	6.00
PAS 613	Master's Capstone Project III	1.00
PAS 610B	Graduate Seminar I	1.00
<b>TOTAL</b>		<b>14.00</b>

## Third Year

Summer Quarter		
Course No.	Course Title	Units
PAS 674	Medical Clinical Services V	6.00
PAS 675	Medical Clinical Services VI	6.00
PAS 611A	Graduate Seminar II	1.00
	<b>TOTAL</b>	<b>13.00</b>

Fall Quarter		
Course No.	Course Title	Units
PAS 676	Medical Clinical Services VII	6.00
PAS 677	Medical Clinical Services VIII	6.00
PAS 611B	Graduate Seminar II	1.00
	<b>TOTAL</b>	<b>13.00</b>

## PROBATION POLICY

The School of PA Studies has academic progression policies in place to ensure all students are meeting the specific goals and learning outcomes for each course and are qualified to progress within the Program. A student is considered in good academic standing at a given time if they have earned a “P” pass for all courses to-date, have at least one reassessment opportunity remaining, scored within two standard deviations on the didactic Packrat exam (if applicable), and have not required extended learning for any course or rotation.

### *Academic Probation*

The School of PA Studies does not use the term “probation” as all students must pass each course to continue within the school.

### *Academic Warning*

A Student is considered on “academic warning” if they have used all three reassessment opportunities during the didactic phase, scored below two standard deviations on the didactic Packrat assessment, or have been required to complete extended learning for any course or rotation. Academic Warning will be noted on a student’s transcript but will be removed when the student successfully completes all program requirements. A student on academic warning may be asked to step down from leadership positions, if applicable, so they can focus on their academic success.

A detailed description of the Academic Progression Policy can be found in the School of PA Studies Student Handbook.

## GRADUATION REQUIREMENTS

To be eligible for graduation and to receive the Master of Medical Science Degree, the student must meet the following requirements:

- Successfully pass all required courses and clinical rotations.
- Successfully complete the Master's Capstone Project and Presentation.
- Pass a comprehensive, multi-faceted summative exam assessing the student’s acquisition of the Graduate Learning Outcomes and competencies for PA Clinical Practice.
- Be recommended for conferral of the degree of Master of Medical Science by the School of PA Studies Program Director.
- Settle all financial accounts with the University.

If a student has not met all graduation requirements but has passed the summative exam, the student *may* be eligible to walk-through and participate in the graduation ceremony with their class, but will not receive a diploma until all requirements have been met.

*Note on licensure: Meeting the graduation requirements for the MMS degree at the School of PA Studies Marshall B. Ketchum University does not guarantee eligibility for state licensure. Some states have specialized requirements or exclusion criteria for licensure, and students are advised to check with the Medical or PA Board in states of possible residency for licensure requirements.*



## COURSES

### **PAS 520: Integrative Patient Assessment Seminar. (1 credit hour)**

This course was designed to provide students with an opportunity for formative evaluation and self-assessment of their patient assessment skills and knowledge. Students will review and integrate learned clinical skills to perform a full physical exam. This course will require students to prepare by reviewing all aspects of the physical exam and practicing physical exam skills. During the simulated full physical exam, students will be expected to review labs and medications, review and update the patient's history, perform a complete "annual exam," and complete documentation for the patient encounter. Students also complete an ungraded, written self-assessment exam covering content from all completed courses to date.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 524: Fundamentals of Anatomy. (2 credit hours)**

This course is designed to provide an introduction of anatomy within a clinical context to assist in developing spatial relationship skills with an emphasis on important anatomical landmarks relevant to physical exam, diagnosis and development of disease, and in the anatomical relationships of structures to each other. The PA student will learn the skills needed to recognize normal anatomy, normal anatomical variation and disease states. Lectures, 3-D anatomy tables, and a multimedia approach will be used to present the material.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 526: Infectious Disease & Immunology. (4 credit hours)**

This course is designed to introduce students to the concepts of medical immunology and the principles of infectious diseases. After reviewing epidemiology, virulence and pathogenicity of selected organisms, pathophysiology, clinical presentation and general management of infectious disease states will be explored through lecture and case studies.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 528: Clinical History. (2 credit hours)**

This course is designed to develop the knowledge and skills required to elicit, perform, and document the complete medical history and physical exam with use of proper techniques and accurate medical terminology. The course will provide an overview of the medical record as well as development of writing and oral presentation skills. History-taking, physical examination, and documentation skills will be developed through lecture and structured small group laboratory exercises.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 529: Dermatology. (4 credit hours)**

In-depth and integrated knowledge about dermatologic disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 530: Eye, ENT. (5 credit hours)**

In-depth and integrated knowledge about ophthalmic and otorhinolaryngology disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 531A/B/C: Evidence-Based Practice. (2/1/1 = 4 total credit hours)**

This course will focus on evidence-based practice methodology, to include the necessary skills to search and critically analyze the medical literature. Students will learn to analyze and interpret various types of clinical articles to develop proficiency in utilizing current, evidence-based medicine to answer clinical questions relative to diagnosis and therapy. Instruction for this course will consist of lectures, structured faculty-led small group journal clubs and review sessions.

Prerequisites: Admission to the School of Physician Assistant Studies.

### **PAS 532: Pulmonology. (5 credit hours)**

In-depth and integrated knowledge about pulmonary disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 533: Cardiology. (6 credit hours)**

In-depth and integrated knowledge about cardiac disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 534: Hematology. (4 credit hours)**

In-depth and integrated knowledge about hematologic disease and oncologic processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 535: Nephrology. (4 credit hours)**

In-depth and integrated knowledge about kidney disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 536: Endocrinology. (4 credit hours)**

In-depth and integrated knowledge about diabetes and other endocrinologic disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 538: Gastroenterology. (5 credit hours)**

In-depth and integrated knowledge about gastroenterologic disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 539: Orthopedics & Rheumatology. (6 credit hours)**

In-depth and integrated knowledge about orthopedic and rheumatologic disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 540: Neurology. (6 credit hours)**

In-depth and integrated knowledge about neurologic disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 541: Behavioral Health. (2 credit hours)**

In-depth and integrated knowledge about behavioral health and psychiatric disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 543: Pediatrics. (5 credit hours)**

In-depth and integrated knowledge about pediatric health and disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 544: Emergency Medicine. (6 credit hours)**

In-depth and integrated knowledge about emergent medical conditions common to primary or urgent care settings and emergency medicine practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as relevant simulations for emergency medicine.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 545: Surgery. (3 credit hours)**

In-depth and integrated knowledge about surgical conditions common to primary care practices. Instruction for this course focuses on knowledge of surgical principles as well as comprehensive management of surgical patients, including preoperative, intraoperative, and postoperative stages of care. It consists of lectures, case studies, hands-on laboratory and practice sessions as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 546: Hospital Medicine. (4 credit hours)**

In-depth and integrated knowledge about the hospital management of conditions common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 547: Geriatrics. (2 credit hours)**

In-depth and integrated knowledge about geriatric health and disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 550: Introduction to the PA Profession. (1 credit hour)**

This course was designed to help prepare students for matriculation and includes self-study components. Students examine the role of the PA in the context of the healthcare system and discuss the historical path of the PA profession as well as PA organizations. Students also spend time with medical terminology and relevant medical science topics.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 551 A/B: Masters Capstone Project I. (1/1 = 2 total credit hours)**

This is the first of three Masters Capstone Project courses. Each course focuses on a particular aspect of the Masters Capstone Project to allow the PA student to complete their required project under the guidance of a faculty advisor. In small teams, students will identify a population healthcare need and develop and implement a project to help mitigate the healthcare need. Students will use evidence-based principles to research the medical issue related to their community project. The student teams will prepare a professional poster and presentation on their topic prior to graduation.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 552 A/B: Obstetrics and Gynecology. (3/3 = 6 total credit hours)**

In-depth and integrated knowledge about obstetric and gynecologic health and disease processes common to primary care, including normal and abnormal labor and delivery. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 555: Applied Physiology. (2 credit hours)**

This course is designed to develop an understanding of physiologic concepts of disease as they pertain to each organ system. Lectures, case studies and a multimedia approach will be used to present the material.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 556: Pathophysiology. (4 credit hours)**

This course is designed to introduce students to human pathology and pathophysiology of disease as they pertain to each organ system. The course has a strong emphasis on clinical context and relevance. Lectures, case studies, and a multimedia approach will be used to present the material.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 557: Male Genitourinary Health. (2 credit hours)**

In-depth and integrated knowledge about male genito-urinary disease processes common to primary care practices. Instruction for this course will consist of lectures, case studies, problem-based learning, hands-on laboratory and practice sessions, as well as small group workshops.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 609 A/B: Masters Capstone Project II. (3/3 = 6 total credit hours)**

This is the second of three Masters Capstone Project courses. Each course focuses on a particular aspect of the Masters Capstone Project to allow the PA student to complete their required project under the guidance of a faculty advisor. In small teams, students will identify a population healthcare need and develop and implement a project to mitigate the identified need. Students will use evidence-based principles to research the medical issue related to their community project. The student teams will prepare a professional poster and presentation on their topic prior to graduation.

Prerequisites: Admission to the School of Physician Assistant Studies.

**PAS 610 A/B: Graduate Seminar I. (1/1 = 2 total credit hours)**

This seminar occurs during the clinical phase and focuses on specific requirements for entering professional clinical practice. Professional practice topics include PA Scope of Practice in California, laws and licensure regulation, preparing for, acquiring and maintaining national certification, patient risk management, medical-legal issues and medical malpractice. Through guided discussion in lecture and small seminar settings, students explore and discuss requirements and competencies for the PA profession. Student clinical preparedness is also evaluated through (1) a formative comprehensive written examination, (2) a formative application of clinical knowledge and skills examination in the form of Objective Structured Clinical Examinations (OSCEs).

Prerequisites: Completion of the preclinical phase of the School of Physician Assistant Studies or program permission.

**PAS 611 A/B: Graduate Seminar II. (1/1 = 2 total credit hours)**

This seminar occurs during the clinical phase and focuses on professional practice topics, as well as ensures students have met all the requisite knowledge and professional criteria for graduation. Students undergo a comprehensive Summative Evaluation during this time to ensure they have acquired broad and specific clinical knowledge as well as to assess their ability to apply these skills during clinical encounters and demonstrate required competencies for PA practice. The student is evaluated through (1) a comprehensive written examination, (2) an application of clinical knowledge and skills examination in the form of Objective Structured Clinical Examinations (OSCEs).

Prerequisites: Completion of the preclinical phase of the School of Physician Assistant Studies or program permission.

**PAS 612: Clinical Preparatory. (6 credit hours)**

This clinical course provides the PA student with a comprehensive review of the didactic phase of their PA education. Students engage in a number of activities designed to enhance their current clinical skills and didactic knowledge prior to beginning their clinical rotations. Students also undergo comprehensive testing to ensure readiness to enter the clinical phase of their education. The student is evaluated through a comprehensive written examination and through Objective Structured Clinical Examinations (OSCEs). A combination of lectures, case studies, simulated patient encounters, labs and workshops, and a multimedia approach will be used to present the material.

Prerequisites: Completion of the preclinical phase of the School of Physician Assistant Studies or program permission.

**PAS 613: Master Capstone Project III. (1 credit hour)**

This is the last of three Masters Capstone Project courses spread across multiple quarters. This course typically occurs in the Spring quarter prior to graduation. Each of the 3 courses focus on a particular aspect of the Masters Capstone Project, to allow the PA student to complete their required project under the guidance of a faculty advisor. In small teams, students will identify a population healthcare need and develop and implement a project to mitigate the identified need. Students will use evidence-based principles to research the medical issue related to their community project. The student teams will prepare a professional poster and presentation on their topic prior to graduation.

Prerequisites: Admission to the School of Physician Assistant Studies.

## **MEDICAL CLINICAL SERVICES COURSES**

The clinical phase of the PA curriculum focuses on direct patient care that offers students a vast array of clinical opportunities with diverse and challenging patient encounters. Prior to beginning their clinical rotations, students engage in a comprehensive review of the entire first phase of training, designed to enhance their clinical exam skills and didactic knowledge. Students also undergo testing prior to clinical rotations to ensure their readiness for entry into the clinical phase. During their clinical rotations, students train with board certified providers, across a number of different specialty areas, each averaging five weeks in length. Students are exposed to acute and chronic patient care needs across the lifespan in a variety of health care settings (i.e. emergency room, outpatient and inpatient settings, operating rooms, and long term care facilities). In order to graduate, students must successfully complete all clinical rotations, the Master's Capstone Project, Graduate Seminars, and Summative Examinations.

Prerequisites: Completion of the preclinical phase of the School of Physician Assistant Studies or program permission.

**PAS 670: Medical Clinical Services I. (6 credit hours)**

**PAS 671: Medical Clinical Services II. (6 credit hours)**

**PAS 672: Medical Clinical Services III. (6 credit hours)**

**PAS 673: Medical Clinical Services IV. (6 credit hours)**

**PAS 674: Medical Clinical Services V. (6 credit hours)**

**PAS 675: Medical Clinical Services VI. (6 credit hours)**

**PAS 676: Medical Clinical Services VII. (6 credit hours)**

**PAS 677: Medical Clinical Services VIII. (6 credit hours)**

**The Medical Clinical Services courses will include experiences in the following:**

### **Family Medicine**

This clinical course provides the PA student with experience in outpatient evaluation of pediatric and adult patients, including preventive medicine and acute and chronic illness. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.

### **Internal Medicine**

This clinical course provides the PA student with experience in outpatient and inpatient evaluation of adult patients, including management of acute and chronic illness. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.

### **Emergency Medicine**

This clinical course provides the PA student with experience in triage, evaluation and management of patients in the emergency department setting. The student will have the opportunity to learn skills necessary for appropriate triage, stabilization, evaluation, diagnosis and management of patients with traumatic injuries and acute medical and surgical illnesses, as well as management of lower acuity health disorders. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.

### **Surgery**

This clinical course will provide the PA student with experience in the evaluation and management of surgical patients in the preoperative, intraoperative, and postoperative environments. The PA student will evaluate and participate directly in the care of surgical patients before, during and after their procedures. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.

### **Pediatrics**

This clinical course will provide the PA student with experience in outpatient and/or in-patient management of pediatric patients. The student will have the opportunity to perform well-baby and child exams, problem-oriented exams, evaluate common pediatric illnesses and experience care of newborns, children and adolescents. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.

### **Women's Health/Obstetrics and Gynecology**

This clinical course provides the PA student with experience in managing common gynecologic care and the maintenance of gynecologic health. Obstetric experience will include routine prenatal care. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.

### **Behavioral Health**

The PA Student will gain experience in caring for ambulatory and/or hospitalized patients with behavioral and mental health conditions in a wide variety of settings during the clinical phase. The student will perform basic psychiatric evaluations, monitor medications, and support the clinical management plan for patients. Students will gain experience in proper and professional communication with patients, patient families, physicians, and an interdisciplinary team of healthcare professionals. Telehealth concepts and experiences may be incorporated into this rotation.

### **Clinical Rotation Electives**

Students will select one elective clinical rotation from a variety of surgical or medical specialties, or subspecialties, such as orthopedics, oncology, endocrinology, primary care, occupational medicine, hospitalist medicine, and others. The student will gain experience caring for patients and managing conditions treated by these specialties and expand their knowledge of medical and/or

surgical indications requiring referral to specialty care. Students will gain experience in proper and professional communication with patients, patient families, physicians and an interdisciplinary team of healthcare professionals.



# COLLEGE OF PHARMACY

## DOCTOR OF PHARMACY

### VISION STATEMENT

The College of Pharmacy at Marshall B. Ketchum University will be a recognized innovator and provider of distinctive, highest quality, evidence-based education, research, and collaborative pharmacy practice.

### MISSION

The mission of MBKU COP is to educate individuals to become ethical and compassionate pharmacists who competently deliver patient-centric services in diverse environments and systems of healthcare, with a commitment to innovative scholarship.

### PROGRAM OVERVIEW

It takes four academic years to complete the Doctor of Pharmacy program. The first-year curriculum provides the foundation for professional practice with instruction on pharmaceutical and biomedical sciences, body systems and disease, epidemiology, public health, pharmaceutical self-care, pharmacy law and roles of the pharmacist. The curriculum teaches United States and global health care systems, interpersonal and interprofessional communications, pre-clinical laboratory skills, pharmacy practice skills and provides certifications in immunization and life support. Students will begin Introductory Pharmacy Practice Experiences courses (IPPE).

The second year curriculum continues to build on the foundation courses from year one with instruction on applied biomedical sciences, pharmacology, clinical medicine and pharmacotherapeutics. The curriculum teaches professional ethics, behavioral aspects of health, drug information, evidence-based practice, research methodology, biostatistics, pharmacokinetics and basics of laboratory medicine. Students continue with IPPE courses.

The third year curriculum continues with focused instruction on the principles of clinical medicine and pharmacotherapeutics. The curriculum incorporates biotechnology, pharmacogenomics, pharmacoconomics, special populations and contains a skills lab for clinical and evidence-based reasoning and certification in medication therapy management. The curriculum provides an opportunity for students to complete a doctoral level research and scholarship project and provides students an opportunity to take didactic electives of their choice.

The fourth year, also known as the experiential year curriculum lists all the Advanced Pharmacy Practice Experience (APPE) courses. Students will also take APPE electives of their choice. Additionally, the students will be provided North American Pharmacist Licensure Examination (NAPLEX) preparatory course series to assess NAPLEX readiness.

The degree of Doctor of Pharmacy will be conferred on students who are officially admitted to, and who satisfactorily complete the four-year professional curriculum in pharmacy. Satisfactory completion of the Doctor of Pharmacy program will academically qualify the graduate to apply for licensure in each of the 50 states.

### ADMISSIONS

The College of Pharmacy is committed to accepting a diverse group of qualified individuals from a variety of backgrounds and experiences in accordance with MBKU's nondiscrimination policy.

### Criteria

The COP has an ethical responsibility for the safety of patients and to graduate candidates for pharmacy licensure who are competent and capable to meet the essential functions of pharmacy practice. The technical standards established by the college faculty require students to master the physical, cognitive and behavioral capabilities for successful admission, promotion and graduation. The Accreditation Council for Pharmacy Education requires U.S. colleges and schools of pharmacy to define the technical standards.

All students are held to the same academic and technical standards, with or without reasonable accommodation, to complete all aspects of the professional education program. Disclosure of disabilities is not required; however, students who fail to comply with the standards and do not seek accommodation are in jeopardy of academic failure and possible dismissal. The college encourages consultation with the assistant dean of student services if a student feels the standards cannot be met. Students must be able to accomplish all of the following:

#### Observation

- Observe lectures, demonstrations, experiments and practice-based activities in the basic and pharmaceutical sciences.
- Observe physiologic and pharmacological demonstrations, evaluation of microbiological cultures and microscopic studies of organisms and tissues and in normal and pathological states.

- Observe a patient accurately at a distance and close at hand, noting verbal and nonverbal signals.
- Meet the specific vision-related requirements, such as read information on a computer screen, projected slides and overheads, read written and illustrated material and discriminate numbers and patterns associated with diagnostic and monitoring instruments and tests.
- Evaluate visible patient signs and symptoms for the purposes of monitoring drug therapy.

### **Communication**

- Communicate effectively, sensitively and rapidly with patients and members of the health care team and convey a sense of compassion and empathy.
- Speak, listen, read and write in the English language.
- Effectively communicate with instructors and peers.
- Communicate interprofessionally with health care practitioners specifically in reviewing and recommending verbal and written drug therapy orders.
- Elicit information from patients, describe changes in mood, activity and posture and perceive nonverbal communications.
- Read and record observations and care plans legibly, efficiently and accurately.
- Complete forms or appropriately document activities according to directions in a complete and timely fashion.

### **Sensory and motor coordination or function**

- Execute all aspects of processing multiple types of drug orders and compounding of medications.
- Engage in safe and aseptic handling of sterile preparations.
- Safely and effectively operate appropriate equipment, including but not limited to microscopes, computer keyboards, glucose monitors and peak flow meters.
- Execute motor movements reasonably required to participate in the general care and emergency treatment of patients.

### **Intellectual, conceptual, integrative and quantitative abilities**

- Identify three-dimensional relationships and the spatial relationships of structures.
- Solve problems involving measurement, memorization, calculation, reasoning, analysis, synthesis and evaluation rapidly in a multi-task setting.
- Synthesize knowledge and integrate the relevant aspects of a patient's history, physical findings and monitoring studies.
- Obtain, retrieve, evaluate and deliver information in an efficient and timely manner.
- Provide a reasonable explanation and analysis of the problem and determine when additional information is required.

### **Behavioral and social attributes**

- Possess the emotional health required for full use of their intellectual abilities, the exercise of good judgment and the prompt and safe completion of all responsibilities.
- Adapt to change, to display flexibility and to learn to function in the face of uncertainties and stressful situations.
- Possess compassion, integrity, interpersonal skills, motivation, empathy, respect and concern for others.
- Describe the legal and ethical aspects of the practice of pharmacy and function within the guidelines established by the law and by the ethical standards of the pharmacy profession.
- Function effectively in situations of physical and emotional stress.
- Analyze appropriate suggestions and criticism and, if necessary, respond by modification.
- Exercise good judgment and prompt completion of all responsibilities involved in the pharmaceutical care of patients in a sensitive and effective manner.
- Have the capacity to develop professional, mature, sensitive and effective relationships with patients.
- Develop the skills necessary to instruct and supervise technical personnel assisting with the delivery of pharmaceutical services.

It is our experience that a number of individuals with disabilities, as defined by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, are qualified to study and work as health care professionals and scientists with the use of reasonable accommodations. To be qualified for health sciences programs at MBKU those individuals must be able to meet both our academic standards and the technical standards, with or without reasonable accommodations.

For further information regarding services and resources for students with disabilities and/or to request accommodations, please contact the Office for Student Affairs.

## **Prerequisites**

All requirements must be completed by the time of matriculation at MBKU.

A baccalaureate degree from a regionally accredited college or university, or an equivalent institution as determined by MBKU, is recommended for admission.

All prerequisite courses must be completed at a regionally accredited institution in the U.S. with a grade of “C” or better. Applicants educated outside the U.S. must utilize a transcript evaluation service to verify their degree and course work. The academic record must show credits and grades equivalent to those given by U.S. institutions of higher learning.

The following courses must be completed at a regionally accredited institution, in the U.S., with a grade of “C” or better prior to enrollment and are the minimum requirements for all applicants.

**6 semester or 9 quarter credit hours of each of the following:**

- General Biology (One year sequence, including laboratories)
- General Chemistry (One year sequence, including laboratories)
- Organic Chemistry (One year sequence, including laboratories)

**3 semester or 4 quarter credit hours of each of the following:**

- General or Medical Microbiology (Laboratory required)
- Human Anatomy (Laboratory required)
- Human Physiology (Laboratory required)
- Calculus (For science majors preferred)
- General Psychology
- Economics
- Behavioral or social science course
- Communication course

**Additionally, 6 semester credit hours or 8 quarter credit hours**

- English\*
- Waived for students with a verified BA degree

Advanced Placement credits will be accepted for fulfillment of no more than the equivalent of one non-science course of the prerequisite.

The Pharmacy College Admission Test (PCAT) is not required for students with a bachelor's degree. Additional consideration will be given to those with community service, patient care, pharmacy and/or military experience.

Applicants who earned degrees from foreign institutions must also submit official scores from the Test of English as a Foreign Language, or TOEFL, regardless of the official language of the country in which the education took place or the predominant language of the degree-granting institution. Scores should be sent directly using MBKU Code 4893.

Minimum scores are noted below:

Reading	22/30
Listening	22/30
Speaking	26/30
Writing	24/30

## Procedures

All first time applicants, reapplicants and those who have been previously enrolled in another pharmacy program must apply through the centralized application service: PharmCAS. Applicants must follow the instructions on how to complete the application, submit transcripts and submit letters of recommendation. All supplemental application materials will be completed during the applicant interview day.

The Pharmacy College Admission Test (PCAT) is not required, but a high score could enhance an applicant's chances of admission. If you wish to make available your PCAT scores, please select MBKU as a recipient at the time the exam is taken.

## Process

The PharmCAS application cycle begins in July. Applicants must submit application and college transcripts to PharmCAS by the final application deadline.

Applications are processed as soon as they are verified by PharmCAS. Candidates will be invited for interviews between Fall and Spring quarters. Video conference interviews may be offered under specific circumstances.

## TRANSFER POLICY

The MBKU College of Pharmacy only considers transfers for entry into the first or second professional year. Students wishing to transfer from another pharmacy school or college in the U.S. should apply through PharmCAS and must meet the following criteria:

- Be in good academic and disciplinary standing at the transferring institution
- Supply a letter of recommendation and permission from the chief executive officer or designee of the transferring institution
- Supply a letter from each of two full-time members of the faculty of the transferring institution recommending the transfer
- Provide a letter explaining in detail why the transfer is being requested including appropriate documentation that substantiates the reason
- Meet all current admissions requirements and standards of The College of Pharmacy
- Supply official transcripts of all collegiate work completed, including that taken at the transferring institution
- Supply course outlines for all Pharmacy coursework for which advanced standing credit is desired
- Submit the appropriate application materials. Decisions on transfer applications are made by the Admissions Committee in cooperation with the Office of Academic Affairs.

Transfer credit will only be granted for courses passed with a “C” or better (must achieve passing score in a Pass/Fail course) and taken in a Doctor of Pharmacy program accredited by the Accreditation Council for Pharmacy Education (ACPE).

## FINANCIAL INFORMATION

### Tuition

#### 2023-24 Tuition, Doctor of Pharmacy program

Annual Tuition & Fees	Full-Time Tuition	Class Fee	Mandatory Equipment & Materials	Student Association Fee	Graduation Fee	Total Annual Tuition and Fees
Class of 2024	\$55,640.00	\$45.00	\$48.70	\$70.00	\$115.00	\$55,918.70
Class of 2025	\$55,640.00	\$45.00	NA	\$70.00	NA	\$55,755.00
Class of 2026	\$55,640.00	\$45.00	\$30.00	\$70.00	NA	\$55,785.00
Class of 2027	\$55,640.00	\$45.00	\$412.09	\$70.00	NA	\$56,167.09

Quarterly Tuition & Fees	Summer	Fall	Winter	Spring	Total Tuition & Fees
Class of 2024	\$13,910.00	\$14,025.00	\$13,910.00	\$14,073.70	\$55,918.70
Class of 2025	\$13,910.00	\$14,025.00	\$13,910.00	\$13,910.00	\$55,755.00
Class of 2026	\$13,910.00	\$14,025.00	\$13,910.00	\$13,940.00	\$55,785.00
Class of 2027	NA	\$19,049.40	\$18,546.67	\$18,571.02	\$56,167.09

#### Tuition for returning students enrolled less than full time

Tuition (less than full time) per credit hour.....\$1,176.01

### Fees

Annual Parking fee (optional).....\$335.00

Other costs

Matriculation deposit / PharmD program (paid upon acceptance and credited to Fall Quarter tuition upon enrollment).....\$1,500

Estimates for books, instruments, equipment, supplies and clinic uniforms for all four professional years are listed below.

Mandatory Equipment and Material fee annual total

Class of 2027.....\$412.09

Class of 2026.....\$30.00

Class of 2024.....\$48.70

Books/Manual/Rotation Fee.....\$500.00

While the occasion has not previously presented itself, the Board of Trustees of Marshall B. Ketchum University does reserve the right to change the tuition and fees or to establish additional fees for special features or services if deemed necessary.

# CURRICULUM

## First Year

Fall Quarter		
Course No.	Course Title	Units
IPE 401C	Professional Ethics	0.75
IPE 406C	DEI in Healthcare	0.75
PHM 507	Foundations of Human Body & Diseases I	3.00
PHM 520	Pharmaceutical Sciences I: Physical Pharmacy & Dosage Forms	3.00
PHM 532	Pharmaceutical Biochemistry	2.00
PHM 550	Pharmacy Skills Lab I - Immunizations	1.00
PHM 560	Pharmacy Law	2.00
<b>TOTAL</b>		<b>12.50</b>

Winter Quarter		
Course No.	Course Title	Units
IPE 403C	Population & Public Health	2.00
PHM 508	Foundations of Human Body & Diseases II	3.00
PHM 512	Patient Assessment Lab	2.00
PHM 523	Basic Pharmacokinetics	3.50
PHM 553	Pharmacy Skills Lab II - Community Practice, Communication, & Management	2.00
<b>TOTAL</b>		<b>12.50</b>

Spring Quarter		
Course No.	Course Title	Units
PHM 509	Foundations of Human Body & Diseases III	2.00
PHM 521	Pharmaceutical Sciences II: Calculations	3.50
PHM 522	Pharmaceutical Sciences III: Dosage Forms & Compounding	4.00
PHM 554	Pharmacy Skills Lab III - Hospital Practice & Healthcare Systems	2.00
PHM 561	Pharmacy Self-Care I	2.00
PHM 581	Medical Spanish	1.00
<b>TOTAL</b>		<b>14.50</b>

## Second Year

Summer Quarter		
	Course Title	Units
PHM 650	Pharmaceutical Self-Care & Patient Advocacy II	2.00
PHM 670	IPPE I (4 weeks)	4.00
<b>TOTAL</b>		<b>6.00</b>

Fall Quarter		
Course No.	Course Title	Units
PHM 601	Integrated Pharmacotherapeutics I	5.00
PHM 602	Integrated Pharmacotherapeutics II	5.00
PHM 622	Advanced Compounding & Calculations	2.00
PHM 640	Pharmacy Skills Lab IV - Patient Care Process	1.00
PHM 651	Pharmaceutical Self-Care & Patient Advocacy III	2.00
IPE 400C*	Medical Spanish	2.00
PHM 780*	Mental Health First Aid	1.00
PHM 790*	Residency Readiness	1.00
<b>TOTAL</b>		<b>15.00</b>

Winter Quarter		
Course No.	Course Title	Units
IPE 402C	Evidence-Based Practice	2.00
PHM 603	Integrated Pharmacotherapeutics III	5.00
PHM 604	Integrated Pharmacotherapeutics IV	6.00
PHM 641	Pharmacy Skills Lab V - Cardiovascular	1.00
IPE 405C*	Preventing Burnout in Healthcare Providers: Wellness & Self-Care	1.00
PHM 782*	Research	2.00
PHM 788*	Introduction to Drug Development & Evaluation	2.00
<b>TOTAL</b>		<b>14.00</b>

Spring Quarter		
Course No.	Course Title	Units
PHM 605	Integrated Pharmacotherapeutics V	6.00
PHM 606	Integrated Pharmacotherapeutics VI	5.00
PHM 610	Drug Information, Informatics & Literature Evaluation	3.00
PHM 615	Advanced Applications in Clinical Practice (AACCP) I	1.00
PHM 681	Research & Scholarship	2.00
PHM 789*	Practical Applications in Statistical Analysis & Research Design	2.00
<b>TOTAL</b>		<b>17.00</b>

\* Elective Courses



### Third Year

Summer Quarter		
Course No.	Course Title	Units
PHM 701	Pharmacoeconomics	2.00
PHM 770	IPPE II (4 weeks)	4.00
<b>TOTAL</b>		<b>6.00</b>

Fall Quarter		
Course No.	Course Title	Units
PHM 710	Integrated Pharmacotherapeutics VII	5.00
PHM 716	Integrated Pharmacotherapeutics VIII	3.00
PHM 721	Behavioral & Social Science	2.00
PHM 730	Pharmacy Skills Lab VI - Diabetes	1.00
IPE 400C*	Medical Spanish	2.00
PHM 780*	Mental Health First Aid	1.00
PHM 790*	Residency Readiness	1.00
PHM 794*	Advanced Cardiovascular Life Support (ACLS)	2.00
<b>TOTAL</b>		<b>11.00</b>

Winter Quarter		
Course No.	Course Title	Units
PHM 712	Integrated Pharmacotherapeutics IX	6.00
PHM 713	Integrated Pharmacotherapeutics X	5.00
PHM 731	Pharmacy Skills Lab VII - Medication Therapy Management	1.00
PHM 740	Biotechnology, Pharmacogenomics & Precision Medicine	3.00
PHM 782*	Research	2.00
PHM 788*	Introduction to Drug Development & Evaluation	2.00
PHM 792*	Applications in Research and Scholarship	1.00
IPE 405C*	Preventing Burnout in Healthcare Providers: Wellness & Self-Care	1.00
<b>TOTAL</b>		<b>15.00</b>

Spring Quarter		
Course No.	Course Title	Units
IPE 404C	Case Conference	0.75
PHM 714	Integrated Pharmacotherapeutics XI	5.00
PHM 715	Advanced Applications in Clinical Practice (AACCP) II	2.00
PHM 760	Special Populations	2.00
PHM 765	Emerging Issues & Practice Readiness Examination	4.00
PHM 786*	Advanced Topics in Infectious Diseases	2.00
PHM 789*	Practical Applications in Statistical Analysis & Research Design	2.00
<b>TOTAL</b>		<b>13.75</b>

\* Elective Courses

## Fourth Year

Course No.	Course Title	Units
PHM 801	APPE: Community Pharmacy Practice	6.00
PHM 802	APPE: Health System Pharmacy	6.00
PHM 803	APPE: Inpatient/Acute Care General Medicine	6.00
PHM 804	APPE: Ambulatory Care Pharmacy	6.00
PHM 805	APPE: Elective Rotation I	6.00
PHM 806	APPE: Elective Rotation II	6.00
PHM 865A	NAPLEX Capstone I	0.25
PHM 865B	NAPLEX Capstone II	0.25
PHM 865C	NAPLEX Capstone III	0.25
PHM 865D	NAPLEX Capstone IV	2.00
	<b>TOTAL</b>	<b>38.75</b>

### COMMENCEMENT AWARDS

Latinized honors are accorded to those students who have excelled scholastically on the following basis:

Summa Cum Laude 3.80 – 4.00

Magna Cum Laude 3.60 – 3.79

Cum Laude 3.40 – 3.59

### PHARMACIST LICENSURE EXAM REQUALIFICATION PROGRAM

The MBKU College of Pharmacy offers a requalification program for non-degree seeking pharmacy graduates. This program is designed to provide pharmacist graduates with the necessary credits to retake the California Practice Standards and Jurisprudence Examination (CPJE) or the North American Pharmacist Licensure Examination (NAPLEX).

#### Overview & Curriculum

- 24 quarter credits (16 semester credits) that can be completed within the existing PharmD curriculum
- Requalification students will be enrolled into existing courses along with degree-seeking students
- Complete coursework on campus in a personalized and safe environment
- Each student will work with their academic coordinator to design their individualized curriculum
- Students can take specific courses on topics that are challenging to help them strengthen their skills
- Students may take as many credits per quarter as scheduling allows

## **COURSES FOR DIDACTIC YEARS (P1-P3)**

### **PHM 507: Foundations of Human Body and Diseases I. (3 credit hours)**

This foundational course is the first in a series designed to develop an understanding of physiology and pathophysiology concepts of diseases, including relevant microbiological and immunological concepts pertaining to each organ system. Students will learn to differentiate between normal physiologic variation and disease states. A blended approach (lecture, small group discussion, multimedia) is used for presentation of the material.

Prerequisites: Admission to the professional Pharmacy program.

### **PHM 508: Foundations of Human Body and Diseases II. (3 credit hours)**

This foundational course is the second in a series designed to develop an understanding of physiology and pathophysiology concepts of diseases, including relevant microbiological and immunological concepts pertaining to each organ system. Students will learn to differentiate between normal physiologic variation and disease states. A blended approach (lecture, small group discussion, multimedia) is used for presentation of the material.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 509: Foundations of Human Body and Diseases III. (2 credit hours)**

This foundational course is the third in a series designed to develop an understanding of physiology and pathophysiology concepts of diseases, including relevant microbiological and immunological concepts pertaining to each organ system. Students will learn to differentiate between normal physiologic variation and disease states. A blended approach (lecture, small group discussion, multimedia) is used for presentation of the material.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 512: Patient Assessment Lab (2 credit hours)**

This foundational course is designed to introduce the art of physical examination as a bridge between anatomy, pathology, and pathophysiology concepts with future therapeutic decision making. Students will be familiarized with the process of information gathering of symptoms, signs, nonverbal communication skills, medical history, verbal techniques of communication and empathy. Basic techniques on how to conduct a physical exam from head to toe and the use of the stethoscope, otoscope, sphygmomanometer, and glucometer will be introduced.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 520: Pharmaceutical Sciences I: Physical Pharmacy and Dosage Forms. (3 credit hours)**

This foundational course is the first in a series designed to develop an understanding of the science behind drug dosage forms, delivery and compounding preparation. Materials covered include the selected properties of drug substances that have an impact on the delivery of drugs to the human body, the dosage forms available for drug administration, and the therapeutic effect with respect to physical and chemical properties of drug in solution dispersion and solid state. The course also focuses on the theory, technology, formulation, evaluation and dispensing of dosage forms and delivery systems.

Prerequisites: Admission to the professional Pharmacy program.

### **PHM 521: Pharmaceutical Sciences II: Calculations. (3.5 credit hours)**

This course is designed to emphasize mathematical concepts used in the practice of pharmacy for preparing and dispensing medications to a diverse patient population. Student pharmacists will use critical thinking and quantitative reasoning skills to compute the correct dose for a drug for both non-sterile and parenteral formulations. Student pharmacists will also explore patient specific parameters that influence the dosing regimen.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 522: Pharmaceutical Sciences III: Dosage Forms, Delivery Systems, and Compounding Laboratory. (4 credit hours)**

This foundational course is the third in a series designed to develop an understanding of the science behind drug dosage forms, delivery and compounding preparation. Materials covered include the selected properties of drug substances that have an impact on the delivery of drugs to the human body, the dosage forms available for drug administration, and the therapeutic effect with respect to physical and chemical properties of drug in solution. This course includes compounding laboratory components to enhance development of knowledge and skills.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 523: Basic Pharmacokinetics. (3.5 credit hours)**

Pharmacokinetics is the study of drug movement in the body, sometimes defined as what the body does to a drug. This course is designed to introduce the basic principles and concepts of pharmacokinetics such as drug absorption, distribution, metabolism and

excretion, as well as pharmacokinetic parameters including rate constant, half-life, steady state concentration, clearance, and volume distribution. Factors that influence the pharmacokinetics of drugs including formulation, physicochemical properties, physiological and pathological conditions are discussed. Students learn to use mathematical equations to describe the pharmacokinetic process of drugs and apply them to dosage regimen determinations. This course will also discuss the correlation of pharmacokinetics and pharmacodynamics which presents the effects of drug action at the receptor site. Upon successful completion of this course, students are expected to make rational drug therapy decisions such as determination of loading dose, maintenance dose and dosing intervals. The course prepares the student for Clinical Pharmacokinetics.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 532: Pharmaceutical Biochemistry. (2 credit hours)**

Pharmaceutical Biochemistry as it relates to organ systems, disease, and pharmacotherapy is presented and reviewed. This includes the principles of the biomolecules and their metabolic pathways in physiological and pathophysiological states. Biochemical constructs (such as DNA, RNA, proteins, and basic signal transduction cascades) are discussed with respect to pharmaceutical treatment of human disease.

Prerequisites: Admission to the professional Pharmacy program.

### **PHM 550: Pharmacy Skills Lab I - Immunizations. (1 credit hour)**

This course is the first of the Pharmacy Skills Lab series with a focus on pharmacy-based immunization delivery. Students will complete training and obtain American Pharmacists Association (APhA) certification in pharmacy-based vaccine immunization delivery.

Prerequisites: Admission to the professional Pharmacy program.

### **PHM 553: Pharmacy Skills Lab II - Community Practice, Communication, & Management. (2 credit hours)**

This course discusses communication skills for interacting with patients, along with principles of entrepreneurship and management. Students will be introduced to communication strategies that optimize patient care and professional development. Students will practice basic skills utilized in community practice such as prescription fulfillment (e.g., receipt, preparation, labeling, dispensing, and distribution), pharmacy workflow and inventory management, use of pharmacy software, pharmacy abbreviations, prescription directions, and medication security with controlled substances.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 554: Pharmacy Skills Lab III - Hospital Practice & Healthcare Systems. (2 credit hours)**

This course will familiarize students with healthcare systems with emphasis on the hospital setting. Contemporary healthcare issues and pharmacy practice in the United States and services within various medication use systems will be discussed. Through various assignments and activities, students will learn basic skills utilized in hospital medication use systems such as medication order fulfillment, use of Electronic Health Record (EHR) and automation equipment, medication safety, medication management, and the formulary system. This course will also discuss laws, regulations, accrediting bodies, and reimbursement as it relates to health-systems.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 560: Pharmacy Law. (2 credit hours)**

This course provides an overview of current state and federal laws that substantially impact the competent delivery of Pharmacy care and services in community, interprofessional, ambulatory/clinic, inpatient, administrative, and other key practice settings. Standards, guidelines, rules, requirements, practices, and policies relating to maintaining/improving patient safety and consumer protection are also provided. The laws and professional practice standards of the state of California are emphasized.

Prerequisites: Admission to the professional Pharmacy program.

### **PHM 561: Pharmacy Self-Care I. (2 credit hours)**

As the first course of the Pharmaceutical Self-Care and Patient Advocacy series, this course provides an overview of self-care and covers principles of pharmaceutical self-care and the systematic approach for assisting patients who seek self-care products for the treatment and prevention of various self-treatable conditions. Students will learn to assist, educate, and empower patients to take responsibility for, and control of, their own health.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 581: Medical Spanish. (1 credit hour)**

Effective communication is critical in delivering effective healthcare, and communication is most effective when both parties share a common language. This course will teach students the basics of Spanish as it applies to the medical field such as physical examinations, emergencies, common diseases within the Latino population, and specializations. By familiarizing students with

conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between healthcare providers and patients. By the end of the quarter, students should be able to communicate in simple Spanish using mainly the present tense, past regular tenses and phrasal verbs to express future intentions. They should be able to utilize specific medical terms learned in class. Students should be able to communicate with Spanish speaking patients by asking personal questions as well as questions about their health. They should be able to understand basic spoken Spanish as related to the course material. They should be able to counsel on a medication using short sentences.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 601: Integrated Pharmacotherapeutics I. (5 credit hours)**

This is the first course in the sequence of Integrated Pharmacotherapeutics that provides introductory knowledge of pharmacology, toxicology, medicinal chemistry, and clinical pharmacokinetics as related to the pharmaceutical sciences and foundations of pharmacotherapy. Drug receptors, signal transduction, ligand-molecular target interactions, drug discovery and development, functional groups and stereochemistry, structure-activity relationship (SAR) analyses, acid-base chemistry, ADME/Tox properties, biotransformation, therapeutic drug monitoring, and pharmacokinetic drug interactions will be covered in this course. Instruction consists of lectures, podcasts and pre-recordings, case studies, individual and group problem sets / projects / homework, workshops/recitations, and faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 602: Integrated Pharmacotherapeutics II. (5 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with an introduction to laboratory values and the clinical reasoning (Subjective, Objective, Assessment, and Plan, SOAP) format followed by a focus on the renal system, fluid / electrolytes, and obesity. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 603: Integrated Pharmacotherapeutics III. (5 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the gastrointestinal, hepatic, nutrition support, and cardiovascular systems. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 604: Integrated Pharmacotherapeutics IV. (6 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the cardiovascular and endocrine systems. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 605: Integrated Pharmacotherapeutics V. (6 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the endocrine, pulmonary and rheumatology systems. Within the endocrine system, diabetes will be broadly discussed. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 606: Integrated Pharmacotherapeutics VI. (5 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 610: Drug Information, Informatics and Literature Evaluation. (3 credit hours)**

This course will provide a systematic approach to drug information and literature evaluation to formulate and implement appropriate drug therapy decisions. This includes effective searching, retrieval, evaluation and dissemination of electronic and print resources.



Students will utilize skills learned in this course to effectively communicate and tailor drug information at the appropriate level for providers, other health professionals, caregivers, patients and the public. Emphasis will be placed on the interpretation and application of critical analytical skills to clinical questions. Additionally, this course will provide introductory knowledge on the state-of-the-art in pharmacy informatics and decision support systems needed to implement patient-centered care. Students will be able to define basic terminology used in health informatics and describe the health benefits and current constraints in using information and communication technology in health care. Practical exercises will provide the student with hands-on experience using numerous drug information sources and evaluation techniques.

Prerequisites: Successful completion of prior quarter coursework or program permission.

#### **PHM 615: Advanced Applications in Clinical Practice I. (1 credit hour)**

This course series is designed to develop knowledge and clinical reasoning skills required for provision of effective, safe, patient-centered, pharmacotherapy care. Instruction consists of: lectures, case studies, clinical problem sets, clinical exams, medical simulation, and group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

#### **PHM 622: Advanced Compounding & Calculations. (2 credit hours)**

This course is designed to focus on advanced mathematical calculations that have been used in sterile and non-sterile compounding pharmacy. This course will help students to improve their performance in solving mathematical-based complex questions. This required course also assists students to refresh their introductory knowledge about mathematics. They will employ their critical thinking and quantitative reasoning skills to compute the correct dose for a drug for both non-sterile and parenteral formulations in a reasonable time. Student pharmacists will also explore patient specific parameters that influence the dosing regimen. In addition, additional materials about compounding will be covered in this course.

Prerequisites: Successful completion of prior quarter coursework or program permission.

#### **PHM 640: Pharmacy Skills Lab IV - Patient Care Process. (1 credit hour)**

This course focuses on the Pharmacists' Patient Care Process (PPCP) with an emphasis on skills necessary for collection and assessment of patient-centered data including utilization of laboratory medicine in clinical and pharmaceutical care. The laboratory time is coordinated with initiation of the Clinical Medicine and Pharmacotherapeutics series. Students will be introduced to fundamental laboratory testing with emphasis placed on general interpretation of laboratory data, systematic use of laboratory tests in the evaluation and management of common and important clinical conditions and the application of laboratory test results to clinical and pharmaceutical care. Students have the opportunity to learn and practice basic skills utilized in delivery of contemporary drug therapy monitoring and point-of-care testing. Additionally, students will practice documenting in a SOAP note format (subjective, objective, assessment, and plan).

Prerequisites: Successful completion of prior quarter coursework or program permission.

#### **PHM 641: Pharmacy Skills Lab V - Cardiovascular. (1 credit hour)**

This course is the fifth of the Pharmacy Skills Lab series with a focus on the pharmacist's role in cardiovascular disease management. Students will learn essential skills to assess risk, promote cardiovascular disease prevention, and encourage patient adherence to therapy. Additionally, students will reinforce communication skills and pharmacy calculations. This program will teach students current guidelines and provide evidence based recommendations to support management of patients with dyslipidemia and hypertension to prevent cardiovascular disease.

Prerequisites: Successful completion of prior quarter coursework or program permission.

#### **PHM 650: Pharmaceutical Self-Care and Patient Advocacy II. (2 credit hours)**

As the second course of the Pharmaceutical Self-Care and Patient Advocacy series, this course covers principles of pharmaceutical self-care and the systematic approach for assisting patients who seek self-care products for the treatment and prevention of various self-treatable conditions. This course will build on principles covered in Pharmacy Self-Care I, and further develop students' knowledge of self-care conditions and medications. Students will learn to assist, educate, and empower patients to take responsibility for, and control of, their own health. The body systems covered will integrate prior knowledge gained from the Foundations of Human Body and Diseases, Patient Assessment Lab, and Pharmacy Self-Care I courses.

Prerequisites: Successful completion of prior quarter coursework or program permission.

#### **PHM 651: Pharmaceutical Self-Care and Patient Advocacy III. (2 credit hours)**

As the final course in the Pharmaceutical Self-Care and Patient Advocacy series, this course continues to cover principles of pharmaceutical self-care and the systematic approach for assisting patients who seek self-care products for the treatment and management of various self-treatable conditions. Students will learn to assist, educate, and empower patients to take responsibility for, and control of, their own health. Building on content from previous courses in the series, students will expand their knowledge in pharmaceutical self-care products and develop robust patient education skills. The body systems covered will integrate prior



knowledge gained from the Foundations of Human Body and Diseases, Patient Assessment Lab, Pharmacy Self-Care I, and Pharmaceutical Self-Care and Patient Advocacy II courses.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 670: Introductory Pharmacy Practice Experience (IPPE) I. (4 credit hours)**

This course provides introductory community pharmacy practice experience for student pharmacists of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will further develop, integrate, and apply knowledge from the first curriculum year. Student pharmacists will evaluate prescription and patient information, understand the basic steps for prescription data entry and processing, prescription preparation, actively observe elements of prescription consultations, and understand the basics of medication compliance and errors.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 681: Research & Scholarship. (2 credit hours)**

This course provides an introduction to different steps of conducting research in the field of pharmacy and pharmaceutical sciences. This is the first exposure of student pharmacists to a course which fully focuses on research topics. Student Pharmacists select their research projects in groups. They will work together to collect evidence about previously published papers in different research fields. Student pharmacists will attend weekly meetings with the course coordinator to report about their progress. The final product will be presented in a PowerPoint format. All group members are involved in their presentation.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 701: Pharmacoeconomics. (2 credit hours)**

This course is designed to introduce fundamental concepts in pharmacoeconomic analyses and outcomes research. Furthermore, this course discusses health economics with an emphasis on evaluating the costs and outcome effects of pharmaceutical products from various perspectives. Pharmacoeconomic analyses (e.g., cost-minimization, cost-benefit, cost-effectiveness and cost-utility) are presented, as well as decision modeling and various cost analyses. The macro/micro-economics of various aspects of pharmacy practice are discussed. Presentation of these content areas will provide a conceptual framework that identifies key areas in health resource allocation, principles of measuring and analyzing costs and health outcomes, and examine the techniques used to evaluate economic and health outcomes literature or data. Various lectures, individual assessments, and in-class activities are included to illustrate how pharmacoeconomic principles and techniques are utilized to elucidate the relationship between costs, consequences, and benefits of pharmaceutical interventions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 710: Integrated Pharmacotherapeutics VII. (5 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the central nervous system and psychiatric disorders. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 712: Integrated Pharmacotherapeutics IX. (6 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on infectious diseases. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 713: Integrated Pharmacotherapeutics X. (5 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on infectious diseases and solid organ transplant. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 714: Integrated Pharmacotherapeutics XI. (5 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on oncology. This course is designed to develop knowledge and clinical reasoning skills required for the provision of effective and safe patient-centered care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 715: Advanced Applications in Clinical Practice II. (2 credit hours)**

This course series is designed to develop knowledge and clinical reasoning skills required for provision of effective, safe, patient-centered, pharmacotherapy care. Instruction consists of: lectures, case studies, clinical problem sets, clinical exams, medical simulation, and group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 716: Integrated Pharmacotherapeutics VIII. (3 credit hours)**

Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the neurological conditions and toxicology. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 721: Behavioral & Social Science. (2 credit hours)**

This course will examine social and behavioral influences on health-related behaviors and the dissemination of health information. Students will be introduced to a range of social, ethical, and cultural factors associated with professional practice. Upon successful completion of this course, students should develop greater behavioral and cultural sensitivity when interacting with patients from diverse populations.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 730: Pharmacy Skills Lab VI - Diabetes. (1 credit hour)**

This course focuses on the pharmacists' role as the medication therapy expert on the diabetes health care team. Students will learn essential knowledge and skills needed to provide effective, evidence-based diabetes care. Students will obtain the American Pharmacists Association (APhA) certificate in The Pharmacist and Patient-Centered Diabetes Care and will receive comprehensive training in current diabetes standards of care to support management of patients with diabetes mellitus.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 731: Pharmacy Skills Lab VII - Medication Therapy Management. (1 credit hour)**

This course is the seventh and final course in the Pharmacy Skills Lab series with a focus on medication therapy management (MTM). Student pharmacists will learn to perform all aspects of an MTM visit, use effective communication skills with both patients and other healthcare professionals, and describe strategies for implementing MTM services. Student pharmacists will also complete training and obtain the American Pharmacists Association (APhA) certification in MTM.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 740: Biotechnology, Pharmacogenomics and Precision Medicine. (3 credit hours)**

Precision medicine or personalized medicine is the integration of established clinical-pathological indexes with state-of-the-art molecular profiling to create diagnostic, prognostic, and therapeutic strategies precisely tailored to an individual patient's requirements. This introductory course will discuss the scientific principles of biotechnology, molecular biology and pharmacogenomics pertaining to precision medicine. Topics include bioinformatics, gene therapy, genotyping, molecular biomarkers, nanotechnology, recombinant protein and monoclonal antibody therapeutics and targeted therapy.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 760: Special Populations. (2 credit hours)**

This course will focus on the pharmacists' role as the medication therapy management expert in special populations in pharmacy: travel health, geriatric, pediatric, and veterinary. Students will learn about epidemiology, etiology, clinical signs and symptoms, therapeutic management, and prevention of diseases in these special populations in order to provide effective, evidence-based pharmaceutical care. Students will complete the American Pharmacists Association (APhA) Pharmacist-Based Travel Health Services certificate training program in the course.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 765: Emerging Issues and Practice Readiness Examination. (4 credit hours)**

This course is intended to assess the readiness of the students to enter the final year of the curriculum, prior to going to their APPE rotations. The course includes an extensive review of prior and current course materials. It also serves as a review for the NAPLEX.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 770: Introductory Pharmacy Practice Experience (IPPE) II. (4 credit hours)**

This course provides introductory hospital pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the institutional pharmacy practice setting. The student pharmacist will evaluate prescription and patient information, basic steps of prescription, data entry, prescription preparation and labeling, observe prescription consultations, understand the basics of medication compliance and errors in an institutional pharmacy practice setting.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 780: Mental Health First Aid (1 credit hour)**

The Adult Mental Health First Aid course is a certification course designed to teach anyone how to recognize symptoms of mental health problems, offer and provide initial help and guide toward appropriate treatments and supportive help for a person who may be experiencing a mental health related crisis or problem. Topics covered in the course include anxiety, depression, psychosis, and addictions. This course does not teach people to be therapists. Students enrolled in the course will learn the ALGEE (Approach and assess for risk of suicide or harm, Listen nonjudgmentally, Give reassurance and information, Encourage appropriate professional help and Encourage self-help and other support strategies) Mental Health First Aid Action Plan and if presented with anyone experiencing a mental health crisis or problem be able to utilize the skills used in this course to recognize and assist them. The course helps the student develop these skills through active learning exercises throughout the course.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 782: Research (2 credit hours)**

This course is designed to provide students with an opportunity for pharmaceutical science research. Students enrolled in this course will learn behavioral and molecular research laboratory techniques, utilizing *Drosophila melanogaster* as a model organism. This course is recommended for students who are highly interested in pharmaceutical science research. Prior mastery of research laboratory techniques is a plus but not a requirement.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 786: Advanced Topics in Infectious Diseases (2 credit hours)**

Advanced Topics in Infectious Diseases will discuss topics in antimicrobial treatment of infectious diseases (ID) beyond those required in the pharmacy curriculum. The course will also re-emphasize core ID topics and practices for continued practice for student learning. Finally, the course will expose students to various aspects of practical infectious disease in pharmacy practice such as antimicrobial stewardship (ASP), formulary management, and journal club.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 788: Introduction to Drug Development & Evaluation (2 credit hours)**

This course introduces students to the basic principles of drug development and evaluation. Drug development is a process to bring a new drug or formulation to the market once a lead compound has been identified through the process of drug discovery. This process includes pre-clinical research including animal studies as well as formulation preparation and evaluation, filing application for investigational new drug for clinical studies, and application for new drug. The structure of this course includes two parts: didactic lectures (11 hours) and a laboratory component (22 hours). The students will be exposed to formulation development (design, preparation, and evaluation of dosage form), pre-clinical studies (animal pharmacokinetic and dynamic studies) and clinical trials (phase I, II, III, and IV). The regulation of new drug approval processes by FDA will also be discussed. The common research instruments for drug development, especially for dosage form evaluation, such as dissolution apparatus, ultraviolet-visible spectrophotometer, and high performance liquid chromatography (HPLC) will be demonstrated in the laboratory. The students will receive hands-on training and practice for these instruments.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 789: Practical Applications in Statistical Analysis & Research Design (2 credit hours)**

This course will explain the concepts and the math behind commonly used statistical tests, including ANOVA F, Student's t, Pearson's correlation, confidence intervals, and statistical power. PHM 789 expands on required coursework by heavily emphasizing the calculation of these statistics and how to apply them in various scenarios. This class will discuss the strengths and weaknesses of various research designs, with a focus on how to select, calculate, and interpret the most appropriate statistical test. Additionally, this course will provide guidance on writing a research protocol for review by an IRB (institutional review board). Recommended for students who intend to pursue careers in academia or research.

Prerequisites: Successful completion of prior quarter coursework or program permission. Students must also receive a grade of B or higher in IPE 402C Evidence-Based Practice.

### **PHM 790: Residency Readiness (1 credit hour)**

Residency Readiness is a course to help individuals learn more about pharmacy residencies. Through the course, they will gain valuable information including but not limited to the pharmacy residency application process, interviews, and life during residency.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 792: Applications in Research and Scholarship (1 credit hour)**

Students who would like to develop their Scholarship & Research skills further, take this course with individualized faculty mentor. This course requires students to perform a research/scholarly activity project under the supervision of the faculty mentor directly. The course has been designed to expose students to an advanced level of research. The results of the scholar activities will be published as scientific papers or poster presentations.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 794: Advanced Cardiovascular Life Support (ACLS) (2 credit hours)**

Upon successful completion, this elective course allows the students to obtain the American Heart Association Advanced Cardiovascular Life Support (ACLS) certificate.

Prerequisites: Successful completion of prior quarter coursework or program permission. A valid cardiopulmonary resuscitation certification is required.

## **COURSES FOR CLINICAL YEAR P4**

Each student completes six advanced pharmacy practice experiences, each of six weeks duration. These experiences take place in the following practice settings:

- Community Pharmacy
- Hospital or Health System Pharmacy
- Inpatient/Acute Care General Medicine
- Ambulatory Care
- Two Elective Settings

Elective settings include: academia, ambulatory care specialties, compounding, consultant pharmacy, medication therapy management, internal medicine specialties, long-term care, managed care, nuclear medicine, optometric pharmacy, pharmacy administration, pharmaceutical industry, regulatory, research, and specialty pharmacy.

6 x 6-week experiences and 6 h / experience = 36 credits

### **PHM 801: Advanced Pharmacy Practice Experience: Community Pharmacy Practice. (6 credit hours)**

This course provides advanced pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for entry-level PharmD candidates, student pharmacists will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the community pharmacy practice setting.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 802: Advanced Pharmacy Practice Experience: Hospital/Health System Pharmacy Practice. (6 credit hours)**

This course provides advanced pharmacy practice experience in hospital or health system pharmacy practice settings, with emphasis on individualized patient care and hospital/health system-based practices. Students identify, evaluate, and resolve medication therapy related problems; assist with drug information, participate in interprofessional care and patient care rounds, monitor patients, identify opportunities for therapeutic interventions, and communicate with other healthcare professionals. Practical understanding of clinical pharmacy systems, sterile products preparation, formulary management, protocol application, dose adjustments, use of electronic medical records, medication safety and reconciliation, pharmacokinetic and hyper-alimentation consultations, and demonstration of understanding of pharmacy laws, standards, and hospital-based operational processes is expected.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **PHM 803: Advanced Pharmacy Practice Experience: General Medicine. (6 credit hours)**

This course provides advanced pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the general medicine pharmacy practice setting. The student pharmacist will gain experience in practice management, and interactions with other health care providers. The students will develop an understanding of the pathophysiology, complications, pharmacotherapy and non-pharmacotherapy management in various patient populations encountered in the general medicine practice setting.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 804: Advanced Pharmacy Practice Experience: Ambulatory Care Pharmacy Practice. (6 credit hours)**

This course provides advanced pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the ambulatory care pharmacy practice setting. The student pharmacist will gain experience in practice management, and interactions with other health care providers.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM 805 and 806: Advanced Pharmacy Practice Experience: Elective Rotations. (6 credit hours each)**

These experiential courses provide the opportunity for student pharmacists to select from a list of electives with a variety of non-patient care foci or an additional clinical specialty pharmacy practice experience. Student pharmacists under the supervision of an adjunct faculty or full time faculty member will gain experience in their chosen elective area. The student will continue to develop a philosophy of practice, an understanding of the role of the pharmacist as a member of the health care team, and gain knowledge and skills to manage resources and daily operations applicable to the specific elective rotation site.

Prerequisites: Successful completion of prior quarter coursework or program permission.

**PHM (865A/865B/865C/865D): NAPLEX Capstones I, II, III, IV.**

**PHM 865A: NAPLEX Capstone I (0.25 credit hours)**

This is the first course of a four-course series that is intended to prepare students to take the North American Pharmacist Licensure Examination (NAPLEX) upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.

**PHM 865B: NAPLEX Capstone II (0.25 credit hours)**

This is the second course of a four-course series that is intended to prepare students to take NAPLEX upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.

**PHM 865C: NAPLEX Capstone III (0.25 credit hours)**

This is the third course of a four-course series that is intended to prepare students to take NAPLEX upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.

**PHM 865D: NAPLEX Capstone IV (2 credit hours)**

This is the fourth course of a four-course series that is intended to prepare students to take NAPLEX upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.



## INTERPROFESSIONAL EDUCATION (IPE) COURSES

Taught by MBKU faculty, IPE is an innovative teaching approach that emphasizes communication, safety, and quality of care. It prepares students of different disciplines to work in teams to deliver the best possible patient experience and outcomes.

At MBKU, you'll have many opportunities to learn with and work alongside students from our other specialties--to step into their shoes and see patient care from a different medical perspective. Teaching you the skills and knowledge that lead to better care and outcomes is the ultimate goal of interprofessional education.

### **IPE 400A/B/C: Medical Spanish. (2 credit hours)**

This interprofessional team-taught elective course is designed to develop and/or improve students' communication in clinical situations with patients whose native language is Spanish. The focus of the instruction will be on learning basic conversation skills in order to elicit clinical histories, conduct an examination, and give oral instructions to Spanish speaking patients. Students will also be exposed to pertinent information about Latino culture as it pertains to medical care. Students will participate in language tasks through listening and speaking.

### **IPE 401A/B/C: Professional Ethics. (0.75 credit hours)**

This interprofessional team-taught course introduces ethical theory and presents case studies that are commonplace in clinical professional practice. The lecture sequence that includes scope of practice, ethical theories, state regulations and clinical examples is supplemented with student-led discussions on case studies using an interactive learning format. Students examine and address issues by applying ethical theory and values to resolving situations that challenge practitioners. Ethical issues dealing with confidentiality, professional referrals, advertising, record keeping, informed consent, medical mistakes and conflicts of interest are presented in class and discussion groups.

Prerequisites: None.

### **IPE 402A/B/C: Evidence-Based Practice. (2 credit hours)**

The overall goal of this course is to provide future medical professionals with knowledge on interpreting scientific studies in their chosen profession. Principles of evidence-based medicine are presented to allow evaluation of literature and other media relative to diagnostic and treatment approaches in patient care. Included in the course material are fundamental concepts in sampling, study design, sample size and power estimates, bias, validity, confounding, hypothesis testing, and an overview of statistical tests appropriate for clinical studies. Quantitative epidemiology approaches are presented such as incidence, prevalence, relative risk, and odds ratio to determine evaluation of patient risk and the efficacy of potential treatment approaches. The course will include material to enable critique and citation of peer-reviewed scientific literature, to assist future medical professionals prepare case reports and scientific manuscripts.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **IPE 403A/B/C: Population and Public Health. (2 credit hours)**

This team-taught interprofessional course is to develop a foundational understanding of population and public health and its core functions of assessment, policy development and assurance. This course exposes the student to current trends in the U.S. healthcare system, including healthcare delivery systems and policy, healthcare information systems and healthcare outcomes. In addition the aim is to develop patient communication and educational skills for a culturally diverse patient population to address concepts of health promotion and disease prevention. Evidence-based recommendations for health promotion and disease prevention will be emphasized. Lectures, group activities, workshops, and simulations will be used to discuss and apply the concepts of disease prevention and health promotion.

Prerequisites: Successful completion of prior quarter coursework or program permission.

### **IPE 404A/B/C: Case Conferences. (0.75 credit hour)**

This team-taught course is designed to support students' mastery of core competencies for interprofessional collaborative practice: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams/teamwork. Learners will demonstrate the acquisition of knowledge, skills, and behaviors aligned with interprofessional collaboration, communication, and teamwork via small group discussion and examination of clinical cases with relevance to various health professions. The course culminates in an interprofessional education simulation involving students from multiple health professions and standardized patients.

Prerequisites: Successful completion of prior quarter coursework or program permission.



**IPE 405A/B/C: Preventing Burnout in Healthcare Students and Student Providers: Wellness and Self-Care. (1 credit hour)**

One lecture hour per week. This is an IPE elective course aimed at preventing burnout. This course will provide a framework for establishing and maintaining a well-balanced life that includes self-care into the lives of health care students and student providers. At each session, you will complete the activities and reflect on how you feel as a result of your practice.

**IPE 406A/B/C: Principles of Diversity, Equity, and Inclusion in Healthcare (0.75 credit hour)**

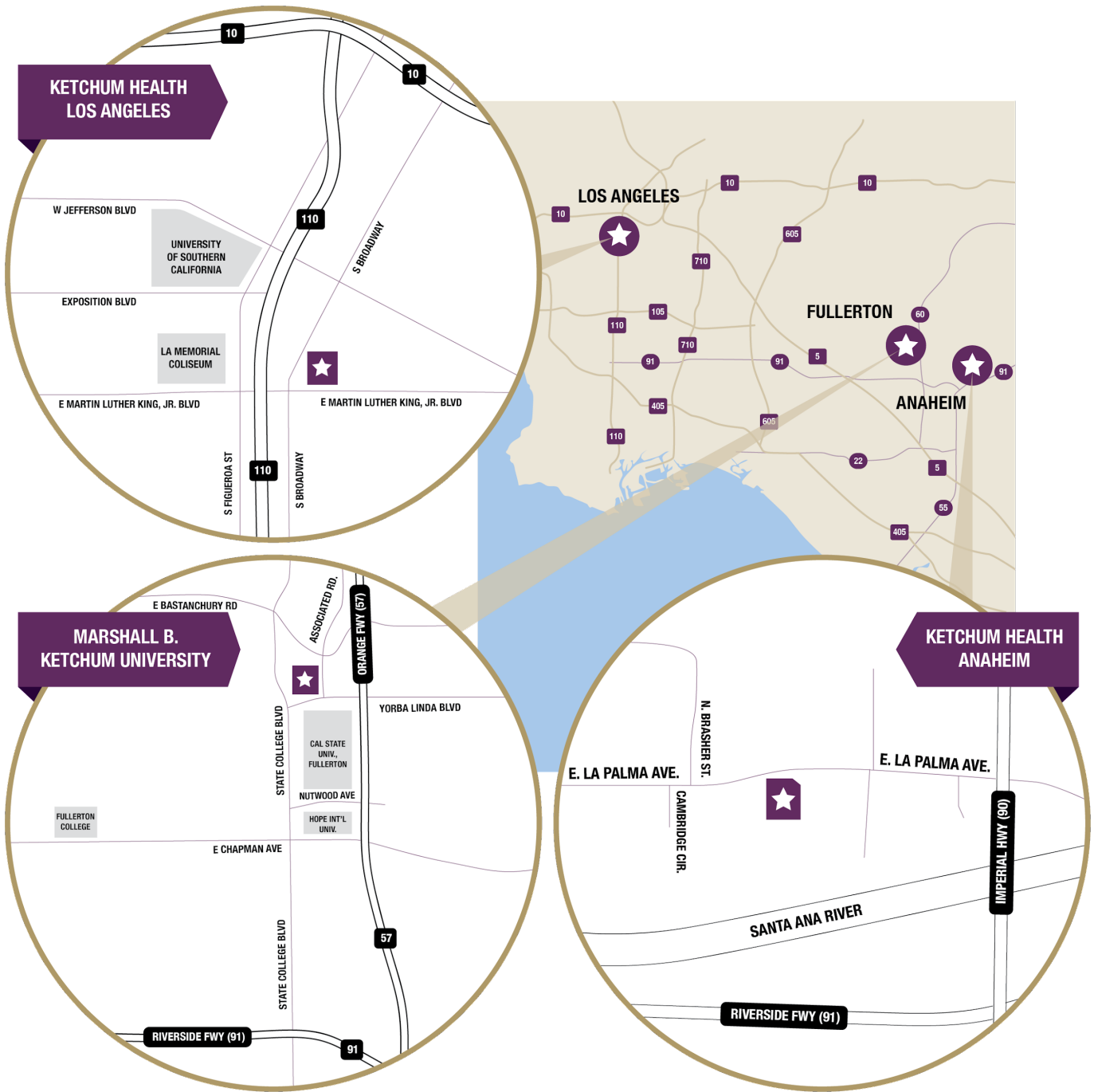
The course is designed to provide a space for future health care professionals to discover and analyze the intersections of identity, biases, cultural frameworks, and principles of health equity. It will introduce the skills and insights needed to build relationships of mutual respect with patients, and will introduce ways to reduce bias, discrimination and reduce health care disparities.

# CHAPTER IV: MAPS, CALENDAR, DIRECTORIES, CONTACT US

## MAPS



MAPS (Continued)



## ABBREVIATED UNIVERSITY ACADEMIC CALENDAR YEAR 2023-24

(see program for detailed calendar)

### Summer Quarter

Summer Quarter Begins	May 22, 2023
Memorial Day Recess (University Closed)	May 27-29, 2023
Spring Quarter Grades Due	May 30, 2023
Spring Quarter Incompletes Due	June 9, 2023
Last Day to Change Spring Quarter Grades	June 16, 2023
Independence Day Recess (University Closed)	July 3-4, 2023
Summer Quarter Ends	August 5, 2023

### Fall Quarter

Orientation Week	August 7-11, 2023
Fall Quarter Begins	August 14, 2023
Summer Quarter Grades Due	August 21, 2023
Summer Quarter Incompletes Due	September 1, 2023
Labor Day Recess (University Closed)	September 4, 2023
Last Day to Change Summer Quarter Grades	September 8, 2023
Fall Quarter Ends	November 4, 2023
SPAS Commencement	November 10, 2023

### Winter Quarter

Winter Quarter Begins	November 6, 2023
Fall Quarter Grades Due	November 13, 2023
Thanksgiving Recess (Program Specific Instructional Days)	November 20-21, 2023
Thanksgiving Recess (All Students & University Closed)	November 22-26, 2023
Instruction Resumes (All Students)	November 27, 2023
Fall Quarter incompletes Due	December 1, 2023
Last Day to Change Fall Quarter Grades	December 8, 2023
Winter Recess (All Students)	December 18, 2023 – January 2, 2024
Winter Recess (University Closed)	December 18, 2023 – January 2, 2024
Instruction Resumes (All Students)	January 3, 2024
Martin Luther King Recess (University Closed)	January 15, 2024
Winter Quarter Ends	February 17, 2024
Spring Recess	February 19-24, 2024

### Spring Quarter

Spring Quarter Begins	February 26, 2024
Winter Quarter Grades Due	March 4, 2024
Winter Quarter Incompletes Due	March 15, 2024
Last Day to Change Winter Quarter Grades	March 22, 2024
SCCO Commencement	May 17, 2024
COP Commencement	May 17, 2024
Spring Quarter Ends	May 17, 2024

## MBKU DIRECTORIES

Board of Trustees | [ketchum.edu/about-us/leadership](http://ketchum.edu/about-us/leadership)

University Student Affairs | [ketchum.edu/student-life/connect-us](http://ketchum.edu/student-life/connect-us)

MBKU Directory | [ketchum.edu/directory](http://ketchum.edu/directory)

## OFFICIAL REPRESENTATIVES

The official channels of intercommunication and lines of responsibility shall follow the formal table of organization as set forth herein or as subsequently modified by action of the Board of Trustees. The official representatives of these groups shall be:

- **Chair of the Board of Trustees** | for the Board of Trustees and/or its Executive Committee and Board Committee
- **President of the University** | for the administration and for the University
- **Senior Vice President for Administration and Finance and CFO** | for administrators and staff in finance and business operations
- **Vice President for Academic Affairs** | for administrators and staff in University academic support services
- **Vice President for University Advancement** | for administrators and support staff in fundraising and alumni relations
- **Vice President for Human Resources** | for employees
- **Vice President for Enrollment and Student Services** | for students
- **Dean of the Southern California College of Optometry (SCCO)** | for the faculty and academic administrators of SCCO
- **Director of the School of Physician Assistant Studies (SPAS)** | for the faculty and academic administrators of SPAS
- **Dean of College of Pharmacy (COP)** | for the faculty and academic administrators of COP
- **President of the Faculty Senate** | for the faculty
- **President for the Student Government Association** | for the members of the student associations (including all student organizations and class cabinets/councils)
- **Alumni Association President** | for the Alumni Association Board of Directors, members of the alumni association and the alumni

Interactions between members of the Board of Trustees, administration, faculty members, support staff, students, alumni, and the public are conducted according to the stated organizational protocols:

1. All official contacts between the Board of Trustees and the faculty, administrators, support staff, student body and alumni shall be through the President of the University.
2. Representations by the Board of Trustees Chair, the President of the Faculty Senate, the President of the Student Government Association, and the Alumni Association Chair shall be official only insofar as the individuals are elected and as they are duly authorized by their respective group.
3. Individual contacts between members of the Board of Trustees, the administration, faculty, support staff, students, Student Association and Alumni Association pertaining to the affairs of the University shall have no official status and may not be documented as part of the business of the University.
4. Since the members of the student body, faculty, support staff, Alumni Association, administration, and Board of Trustees represent a wide spectrum of cultural, societal, religious and political beliefs, such opinions as may be held by any of the individuals within these groups will not become any part of the transaction of these groups. Reference to matters of this nature, whether written or oral, will not become a part of the official business of the University.
5. The private personal business and/or the practice of a faculty member is not to become a part of the business of the University and is not to interfere with the faculty member's duties or reflect unfavorably on the University at any time. Faculty, administration, staff and students will not impose upon other members of the University community (including the Board of Trustees) for special privileges because of their status nor shall members of the Board of Trustees seek special consideration from any member of the University community because of their position. Any questions concerning any aspect of this matter should be brought to the attention of the President of the University as soon as possible.
6. Redress or appeal: In the event that any individual member(s) of any of the above-named groups believes their statement, request, petition or recommendation has not received fair and equitable consideration based on existing official University policy and procedures, it may be submitted in writing to the President of the University for redress provided that all reporting protocols have been followed as described in the Student Grievance Procedures section of the University Student Handbook.

## CONTACT US

**Marshall B. Ketchum University**  
2575 Yorba Linda Boulevard  
Fullerton, California 92831-1699

Administration and Finance & CFO, VP.....	714.463.7540
Admissions, College of Optometry.....	714.992.7868
Admissions, School of Physician Assistant Studies.....	714.992.7808
Admissions, College of Pharmacy.....	714.872.5698
Admissions, Graduate Program.....	714.449.7494
Alumni Relations.....	714.463.7559
Business and Accounting Office.....	714.463.7546
Campus Safety.....	714.992.7892
Campus Store.....	714.449.7434
Financial Aid.....	714.449.7448
Human Resources, VP.....	714.449.7459
M.B. Ketchum Memorial Library.....	714.449.7440
Optometry, Dean.....	714.449.7473
Optometry Outreach Clinical Programs.....	714.463.7527
Optometry Residencies.....	714.463.7527
Patient Appointments, Ketchum Health.....	714.463.7500
Patient Appointments, University Eye Center, Los Angeles.....	323.234.9137
Pharmacy, Dean.....	714.872.5692
Physician Assistant Studies, Program Director.....	714.872.5689
President's Office.....	714.449.7451
Registration and Records.....	714.992.7803
Associate Dean of Clinics.....	714.463.7504
Student Accounts Services.....	714.449.7437
University Advancement, VP.....	714.463.7550
Enrollment and Student Services, VP.....	714.449.7423