Troy Shields was set on a business career. Until the day in high school he shadowed a surgeon. That one experience instantly changed his mind and set him on the path to become a physician.

After completing the majority of the requirements for a bachelor of science degree in biology at Nevada in just three years, Shields entered the University of Nevada School of Medicine last fall as part of the first cohort of medical students admitted under the new “BS-MD” program.

The School of Medicine’s innovative BS-MD program offers a seven-year accelerated pathway for a small number of motivated, mature high school seniors intending to pursue a career in medicine. The ultimate goal of the BS-MD program is to keep Nevada’s top high school students in-state for their higher education by offering an incentive: complete both a bachelor’s and medical degree in seven years instead of the usual eight.

Joining Shields in that cohort were Emily Huang, Ashley Gray, Matt Klippenstein and Stacy Wong. All but Klippenstein, who is taking an additional year to earn a minor in business, matriculated to the School of Medicine as part of the Class of 2015.

Jeff Thompson, dean of the College of Science, says the BS-MD program was conceived as a way to retain Nevada’s exceptional students beyond their undergraduate degree.

Since Nevada was losing these high school students to other states for medical school, he brainstormed with former deans at the School of Medicine and the College of Agriculture, Biotechnology and Natural Resources to try to stem the “brain drain,” and they conceived the BS-MD program back in 2007.

“They came here wanting to get their medical degrees, and we’ve taken a year off that process. This is a wonderful opportunity for us, as these kids could’ve gone anywhere in the country,” Thompson says.

Shields, who graduated from Douglas High School in 2008, is excited about becoming a physician because the career offers a fast-paced, hands-on opportunity to use problem-solving skills.

For Shields, the decision to choose Nevada
was easy: he wanted to stay local. He participated in a “Best and Brightest” prospective student recruiting event where he learned about the BS-MD program. The BS-MD is currently offered to biology, biochemistry, chemistry and neuroscience undergraduate majors.

Wong also attended the Best and Brightest program and learned of the BS-MD program.

“There was no doubt in my mind that I wanted to be a physician,” she says. “My sisters went to medical school and would come home with their instruments. I fell in love with it.”

Wong entered the BS-MD program to speed up the process for becoming a physician. While still majoring in biochemistry and molecular biology, Wong took advantage of mentoring and shadowing opportunities offered through the BS-MD program to meet those requirements for medical school admission.

As a first-year medical student, Wong has been getting used to the “culture shock” of medical school.

“I’ve learned that in medical school, I have to be much more efficient with my studying and my time management. There was a much broader focus in college. I was able to do some extracurricular activities, but I gave them up for this first year of medical school,” she says, adding that she hopes to be able to add those activities back into her life as time progresses.

Even so, Wong has been pleased by the sense of community among her classmates.

“It isn’t really that cut-throat because we all help each other. There isn’t much competition with other students—we compete against ourselves.”

While the first group of BS-MD students has just begun their first year of medical school, more than two dozen are coming up through the undergraduate ranks at the University. Among that group are Erik Jensen and Jessica Kim, two recent graduates from the Davidson Academy, a public charter school for exceptionally bright students located in the Jot Travis Building on the Reno campus.

Jensen, a freshman majoring in neuroscience and a Nell J. Redfield Foundation Scholarship recipient, credits his mother, a geriatric nurse, and his experiences at the Davidson Academy with steering him toward the medical profession. He is grateful for the structure of the BS-MD program, which brings him closer to entering medical school.

Jensen is interested in studying oncology because cancer is a disease that eludes cure.

“I’m looking at treating those with cancer first, and then later conducting research to help find a cure,” he says. “I want to do something that has a lasting impact on medicine.”

Kim, a sophomore biochemistry major, views becoming a physician as the culmination of her interest in science, her family heritage (she has an aunt, two uncles and a grandfather who are physicians) and her desire to have a fulfilling career helping people.

Being drawn to the clinical aspects of medical school, Kim shadowed School of Medicine faculty internist Tim Baker ’04M.D. last summer and was impressed at the impact he had on patients’ lives. While she is still undecided as to her choice of medical specialty, she is initially drawn to primary care.

The doctors are in

Dr. Beverly Neyland, the School of Medicine’s assistant dean for admissions and admissions committee chair, says the BS-MD program is specifically designed for students who have already made up their mind to pursue a career in medicine and have done much of the footwork in college to prepare for medical school.

“They have mentored and shadowed physicians, completed service and community projects, as well as maintained their GPA,” she says. “They have looked at other careers before coming back with a vengeance to medicine.”

Neyland explained that these self-learners are looking for the long-term experience, have innate curiosity to explore beyond what is expected and understand the challenges of a medical career.

Students accepted into the BS-MD program complete the first three years of the required undergraduate curriculum at Nevada, followed by the traditional four years of medical school.

Students are awarded their bachelor degree after successful completion of the first year of medical school (credits earned in the first year of medical school are transferred back to complete the bachelor degree) and are then awarded the medical degree after completing all medical school requirements.

Program coordinator Gina Sella says all BS-MD students are among the top 10 percent of their high school graduating class; have exemplary SAT, ACT and MCAT scores; and have all had advanced placement, honors or international baccalaureate coursework in high school.

As a group, these students have competed on high school athletic teams, played in the band, are fluent in foreign languages and have done extensive community service and volunteer work prior to college. Among their ranks is a National Merit Scholar, a mechanic, a professional figure skater, a black belt in karate and a presidential campaign worker.

Sella collaborates with the University’s undergraduate major advisers and credits Christie Howard, associate professor of biochemistry; Carol Ort, emerita faculty in the biology department; Elena Pravosudova, associate professor and vice chair of biology, and Tamara Valentine, director of the Honors Program, for their help in ensuring the academic progress and success of the BS-MD students.

Ranna Nash, a learning skills specialist, tutors and helps participants prepare for the MCAT exam and the transition from college to medical school.

The BS-MD program extended to UNLV this academic year with the first group of students entering the biological sciences major. There are 37 students enrolled statewide in the BS-MD program between the University, UNLV and the University of Nevada School of Medicine.

To learn more about the requirements for the BS-MD program, please visit www.medicine.nevada.edu/dept/asa/prospective_applicants/programs_bsm.htm, or contact Ann Diggins, director of recruitment for the School of Medicine at (702) 671-2202 or Gina Sella at (775) 682-8354, or bsmd@medicine.nevada.edu.