

# ANTIDOTE FOR LECTURE FATIGUE:

## Active Learning in the Fisch College of Pharmacy

LISTENING TO long lectures can cause lethargy, drowsiness and other symptoms, as student David Dan can attest.

“I was never one to just sit in class and pay attention to lectures. I was always zoned out, so I had to make it up after class and read on my own to catch up,” he said.

He found just the remedy in the new Ben and Maytee Fisch College of Pharmacy at The University of Texas at Tyler, where he is a member of its first class of students this year. It is one of only four pharmacy colleges nationwide that offers a doctor of pharmacy program centered exclusively around team-based learning.

“The more I read about it, the more it appealed to me and the more I thought it fit my style of learning,” said Dan, pharmacy student class president.

### TEAM-BASED ACTIVE LEARNING

It is an active-learning method proven to engage students in learning more effectively than traditional classroom instruction via lecture alone.

“It’s still the same content delivered by all colleges of pharmacy across the country. We just do it in a rather innovative way so that it helps students put the material in context, which clearly provides them an advantage when they go out and work in the community,” said founding dean Dr. Lane Brunner, who was instrumental in developing team-based-learning at two of the three other pharmacy colleges.



*“WORKING IN TEAMS CREATES A SUBTLE PEER PRESSURE TO EXCEL AND HELP EACH OTHER, SAID STUDENT KABRIA DAVIS, NOTING “IT’S A GOOD TYPE OF PEER PRESSURE.””*

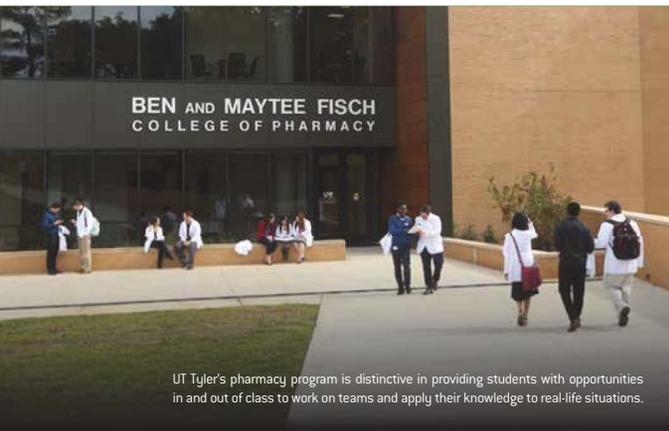
The program is distinctive in providing students with opportunities in and out of class to work on teams and apply their knowledge to real-life situations. Students spend most class time solving problems together and working in teams of six. For example, they might be given a scenario of a person with a specific set of symptoms, and then have to put their heads together to figure out the best pharmaceutical drug to prescribe while weighing several factors, including effectiveness, drug interactions, side effects, cost and patient preferences.

Experience working in teams is especially important in this field because of how pharmacies operate, said Dr. Leanne Coyne, associate professor and director of assessment in the Fisch College of Pharmacy.

“This career is a very hands-on job and involves working and communicating with a lot of people. So practicing those communication skills and applying knowledge in the classroom is exactly what pharmacy students need,” she said. “A lot of people graduate without having worked on a team before, then all of a sudden they’re thrown into a team environment. Our students graduate with four years of experience working on teams, so they’re ready for it.”

### INTEGRATED COURSES

The program is distinctive from traditional ones in other ways, too. For instance, traditional pharmacy students take different courses and then have to figure out how those areas relate to each other.



UT Tyler's pharmacy program is distinctive in providing students with opportunities in and out of class to work on teams and apply their knowledge to real-life situations.

"We know from past experience that students tend to struggle with pulling those different areas together and seeing how they relate, unless they're given a broader context. So we decided to take all those topics and integrate them into one course that we called Integrated Pharmacy," Brunner said.

Integrated Pharmacy is the cornerstone course that students take every semester of their first three years, along with two other courses. It is a single course taught by multiple faculty members who make sure their topics dovetail with each other.

The other two courses are Integrated Laboratory, where students apply what they learned in the classroom, and Introductory Pharmacy Practice Experience, where they spend four hours a week working with a pharmacist in the community. Students in traditional pharmacy programs do not typically get that kind of clinical experience until their second or later years.

"We decided to do a different approach and send them out to clinical settings in their first semester. We are comfortable with that because of our integrated curriculum. We introduce pharmacy practice topics very early on, so our students are not as green as other students when they go to practice sites," Brunner said.

#### PRODUCTIVE CLASS TIMES

Students in most pharmacy programs do not take tests until many days after they have attended lectures; however, UT Tyler students read information in advance and are quizzed at the beginning of each class to ensure they are ready for the day's activities.

Students then retake the quiz as teams and discuss questions as a class, providing immediate feedback and reinforcement.

"That's all in preparation for their activities in class. So they're going into the activities being prepared, rather than just going in naive. It makes the activities a lot more productive," Coyne said.

Working in teams creates a subtle peer pressure to excel and help each other, said student Kabria Davis, noting "it's a good type of peer pressure."

"You don't want to show up unprepared for class, because you may feel like you're letting your team down," she said.

Though class time usually involves active student participation, professors sometimes pause to give brief lectures explaining important concepts.

In the latter half of students' second year and in both semesters of their third year, they can take elective courses on various topics, such as advanced diabetes care, nuclear pharmacy or how to operate an independently owned pharmacy.

In their fourth and final year, students work entirely off campus while completing seven six-week rotations in pharmacies.

"We've built quite a network of connections throughout East Texas and beyond for getting our students set up in practice sites, including pharmacies, hospitals and medical clinics," said Dr. Holly Duhon, assistant dean for experiential education.

Supervising pharmacists in the community have noted how advanced UT Tyler's students are, Brunner said: "Not

only are our students professional in their interactions, but they're asking better, more complex questions that the pharmacists would not expect from first-year students."

#### STUDENT-CENTERED PROGRAM

Dr. Kathleen Snella, associate dean for student affairs, emphasized the college's student-centered approach.

"We treat students like the professionals they're going to be once they graduate," she said. "We introduce them to the profession, hold them responsible and coach them as professionals, so that when they graduate, they're ready."

Part of what makes team-based learning so effective is it requires more energy and effort—from students in adapting to a new way of learning, and from professors in designing and preparing engaging class activities, Dr. Grace Loredo, clinical assistant professor, said.

"You find that in the classroom, you as a professor have to be a lot more dynamic, a lot more responsive to what is happening in the classroom, and be changing as the needs require," she said.

The professor has to be more prepared than in traditional classroom formats to handle unplanned occurrences in class, such as students needing more or less help than expected with certain topics and asking questions that lead to discovery and better understanding, she said.

"The discussions and activities are more fluid and dynamic," Coyne concurred. "You never know what direction it's going to go, and it's really nice when a student asks you a question you hadn't even thought of."

Overall, Davis finds the learning format easier because each class builds on the previous one, helping her keep up with the large amount of material she must retain, she said.

"I love team-based learning because I'm honestly not as stressed as I would otherwise be," Davis said.

In fact, UT Tyler's unique approach is part of why she chose its pharmacy program over others.

"It is just a fantastic opportunity, and I hope that a lot more schools will incorporate team-based learning to help students," Davis said. "It puts us at a strong advantage. ... We're getting that early exposure, which is going to help us in the long run." ■



Students in the Fisch College of Pharmacy spend most of their class time solving problems together and working in teams. "This career is a very hands-on job and involves working and communicating with a lot of people. So practicing those communication skills and applying knowledge in the classroom is exactly what pharmacy students need," says Dr. Leanne Coyne, associate professor and director of assessment.

