

# Sports

## Behind the science: Training a Dragon student-athlete



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James Gemar conducts the first tests with the Bod Pod on the women's basketball team on Sept. 5.

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Running, jumping, throwing, hitting and kicking are all basics of most of the sports at Dragon Athletics. Weight lifting and good nutrition help to shape the bodies of the student-athletes that must execute these motions. But understanding what weight lifting programs and nutrition to utilize comes from a process outside the athletic department.

The health and physical education department together with Dragon Athletics put student-athletes through body composition testing with one main goal in mind. "(Strength and conditioning) Coach (Travis) Anderson and the coaches want their athletes to have a high level of fitness to maximize performance on the field, on the court, on the track," said James Gemar, exercise science program coordinator.

Body composition testing is designed to measure percent body fat. The HPE department has used two methods in the testing of Dragons athletes: hydrostatic weighing and bioelectrical impedance. The department received a new Bod Pod during the summer that could bring more precise measurements while using a different process than the hydrostatic or bioelectrical methods.

Hydrostatic weighing is a

process that weighs an individual in and out of a pool of water. The athlete must breathe out all air in the lungs prior to being submerged into the water. While in the water, the athlete is weighed.

Bioelectrical impedance, a method used by sending a small electric current through the body and measuring the speed it takes to move through, is used as a backup to the hydrostatic weighing, but is used after every hydrostatic weighing test to compare the numbers. The bioelectrical impedance is slightly less accurate than the hydrostatic method, but Gemar said it works well for the general population as compared to athletes.

The newest piece of technology the HPE department has received is said to be the most accurate form of finding body fat percentage, although the Bod Pod is in the first stages of testing in Nemzek. The Bod Pod uses air displacement in an enclosed chamber to find the body composition numbers.

Gemar said he first began body composition testing with the men's and women's cross country and track teams years ago because head coach Keith Barnier was very interested in the body fat percent of his athletes. Once coach Anderson joined the staff, he became interested and used it as well.

Last year the HPE department tested the men's and women's basketball teams, the football

team, the men's and women's cross country and track teams, and the volleyball team. The testing has already begun this year as 90 football athletes were measured.

There are two different goals when finding out the body composition numbers. First is to find whether the athlete's percent body fat is in a healthy range. Second is to monitor progress and get a baseline. After a baseline percent is taken, changes can be made in nutrition to lower the body fat.

"It's perfect for us as far as trying to shape and mold athletes to reach their full potential," said football head coach Steve Laqua. "Anytime you can measure something you can improve it or you can change it so it gives us an accurate measurement of where guys are and the work they've done nutritionally as well as the work in the weight room."

The HPE department broke the seal for testing in the Bod Pod last Wednesday with the women's basketball team. All of the body composition testing is just one way Gemar said the HPE department is trying to utilize their area of expertise for the benefit of MSUM.

"It's just a way that our department can be of use to the university community, in this case the athletic department, and we see the value of body composition as it relates to athletic performance so we are happy that we can help," Gemar said.

### DRAGONS Weekly scores

#### Soccer

Tie - at Northern State  
09/08/12  
Aberdeen, S.D.  
MSUM (1-2-1) 1  
NSU (1-2-1) 1

#### Football

Loss - at Sioux Falls  
09/08/12  
Sioux Falls, S.D.  
MSUM (0-2) 10  
USF (2-0) 45

#### Volleyball

Win - vs. Eckerd  
09/06/12  
St. Petersburg, Fla.  
MSUM (5-1) 3  
EC (3-2) 2

Win - vs. Northwood  
09/07/12  
St. Petersburg, Fla.  
MSUM (7-1) 3  
NU (4-2) 0

Win - vs. Rollins  
09/07/12  
St. Petersburg, Fla.  
MSUM (6-1) 3  
RC (2-3) 2

Win - vs. Newberry  
09/08/12  
St. Petersburg, Fla.  
MSUM (8-1) 3  
NC (5-3) 0

## Volleyball receives national recognition

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The Dragon volleyball team is nationally ranked in the American Volleyball Coaches Association Top 25 poll for the first time since 2005.

They opened their season on a road trip to Florida, going 8-1 against non-conference teams in the Rollins Tournament and the Eckerd College Classic. They faced off with Florida Southern between the two tournaments on the road trip.

In the opening tournament, the Dragons faced off with No. 19 Eckerd and No. 22 Rollins, along with Chestnut Hill and California University of Pennsylvania.

In tough fought battles, the Dragons came out on top in three-of-four matches, dethroning the nationally ranked squads. The Dragons recorded their only loss of the trip to California University of Pennsylvania, 0-3.

"We knew we were the underdogs," senior outside hitter Heidi Lensing said. "That didn't hold us back. We played our hardest, taking the games point by point."

After the opening weekend of play, MSUM had knocked Rollins completely off the AVCA Top 25 poll and bumped Eckerd to No. 22.

The Dragons again beat both teams in two five-set matches less than a week later.

"We had moments where we played very well together," head coach Tammy Blake-Kath said. "There is still room for improvement, which is exciting because we can get better."

After defeating both nationally known teams for a second time, the Dragons got the recognition they deserved and were tied for the No. 22 spot on the poll. The Dragons are one of six teams in their conference to be ranked in the Top 25 poll.

"I felt that the NSIC preseason poll totally underestimated us," Blake-Kath said. "It was exciting to not do it once, but twice, with both teams."

Three Dragon team members were honored between the two tournaments. Senior outside hitter Heidi Lensing and senior libero Katy Ness were named to the Rollins All-Tournament team. At the Eckerd College Classic,

sophomore outside hitter Annie Palmquist, along with Lensing, was named to the All-Tournament team.

Ness was named the Most Valuable Player of the Eckerd classic after averaging 6.1 digs per set. Her outstanding play of 212 digs posted for the season thus far has earned her Northern Sun Intercollegiate Conference Defensive Player of the Week the last two weeks.

"Katy dug some amazing balls and did a great job passing last week," Blake-Kath said.

With a solid group of seniors, the team looks to experience for leadership. However, a group of freshmen is proving their worth by posting big numbers for the team.

"We have a great all around freshmen group," Ness said. "This year all the puzzle pieces fit together, hopefully creating a successful team."

The Dragons start NSIC action this weekend against St. Cloud State University on Friday and No. 4 Minnesota Duluth on Saturday.

"We need to continue to show we deserve to be ranked now that we are starting conference play," Ness said.

Russell & Ann Gerdin

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