Anatomy and physiology

 [Name of the Writer]

[Name of the Institution]

Anatomy and physiology

 Although scoring a field goal seems like a pretty straightforward activity, but it requires multiple systems of human body actively working in coherence to complete it. The systems working together in the activity are the skeletal, nervous, and muscular system.

 Different parts of the muscular system are involved while scoring a field goal. Femur and ilium from the hip, tibia, and femur from the knee, and tibia and tarsals from the ankle are the joints that are involved when a player scores a field goal (Rome, 2006). The muscles that are attached to these joints provide them with enough energy. Additionally, the hip flexor and thigh muscles are the muscles that are mostly involved in scoring a field goal. Furthermore, the muscles making up the calf has significant influence while a player kicks the ball. Meanwhile, these muscles provide stability to the player’s body during the process. Lastly, the bones that become in contact with the ball have an important role (Rome, 2006). These bones are tarsals, metatarsals, and phalanges (Rome, 2006).

While a player is kicking the ball to score a field goal, the nervous system also comes into the play. The nervous system is divided into two parts-the central nervous systems and the peripheral nervous system (Furness, 2006). The brain and spinal cord make up the central nervous system together (Furness, 2006). The peripheral nervous system includes nerves that are spread all over the body. The activity of scoring a field goal is initiated within the brain. The player tends to take into account multiple factors like the wind and the distance towards the goal post. The central nervous system is programmed to collect information from an individual's surroundings. In the case of the player, when he or she gets ready, nerves of the peripheral nervous system are triggered. These nerves are attached to the central nervous system responsible for kicking the ball.

**References**

Rome, L. C. (2006). Design and function of superfast muscles: new insights into the physiology of skeletal muscle. *Annu. Rev. Physiol.*, *68*, 193-221.

Furness, J. B. (2006). *The enteric nervous system* (Vol. 274). Oxford: Blackwell.