1. **Definition of Concussion**  
   *Concussion is defined as a complex physiological process affecting the brain, induced by traumatic biomechanical forces (McCrory et al).*

2. **Student-Athlete and Coach Education**  
   *All student-athletes will be given information regarding concussion at the time of either the pre-participation physical exam or annual health exam.  
   *All teams will be given education on concussion annually.  
   *All coaches will be given information regarding concussion annually.*

3. **Team Physician and Certified Athletic Trainer Education**  
   *All athletic trainer’s staff will review the written concussion management plan annually.*

4. **Roles of the Athletic Medicine and HWC staff**  
   *The team physician is responsible for overseeing the implementation of the concussion management plan and overseeing return to play decisions.  
   *Neuropsychologist will be consulted as needed at the discretion of the team physician.*

5. **Baseline Assessment Requirements**  
   *ImPACT Testing  
   *Modified Balance Error Scoring System  
   *Baseline testing of incoming student-athletes on all teams*

6. **Identify the student-athlete who shows any signs, symptoms, or behaviors consistent with a concussion.** The student athlete shall be removed from practice or competition and evaluated by a certified athletic trainer, team physician and/or HWC physician  
   *Obtain a brief history and current symptoms the student-athlete may be experiencing.  
   *Assess cognitive function and coordination  
   *Assess orientation and recent memory  
   *Consider further neurological testing to include pupil reactivity, muscle strength and reflexes.*

7. **Determine if a student athlete has sustained a concussion.**  
   *Any loss of consciousness, amnesia, or change in mental status should be considered signs of a concussion  
   *Assessment of concussion shall be made by either the team physician or the team physician’s designee (ATC).  
   - If there is no team physician or certified athletic trainer available, any student-athlete showing signs, symptoms or behaviors consistent with a
conciussion will be withheld by the coaching staff until a medical examination is conducted.

8. **A student athlete diagnosed with a concussion shall be withheld from activity and will not return to practice or competition for the remainder of the day.**

9. **Once diagnosed with a concussion observe and reassess the symptomatic student athlete at periodic intervals and determine triage as appropriate.**

10. **When a student athlete diagnosed with a concussion is released from the care of the athletic medicine staff on the day of injury, they will be provided with the Macalester College Concussion home sheet. The sheet will also be provided to a roommate, teammate, parent guardian, or other person who will be with the athlete on the day of injury.**

11. Any student athlete diagnosed with discussion will follow up with a team physician. Progress of the concussed athlete will be communicated between the CAT and the MD.

12. **A period of physical and cognitive rest should be considered for the concussed student athlete. The CAT or the MD will communicate these recommendations to the coaching staff and academic services so appropriate accommodations may be made.**

13. **Assessment tools following concussion:**
   - *The Clinical Examination is considered to be the GOLD STANDARD IN Concussion evaluation.*
   - *ImPACT Symptom Inventory.*
     - A symptom inventory will be given to each student-athlete diagnosed with a concussion to be completed regularly with the certified athletic trainer.
   - *ImPACT Testing*
     - Follow-up testing is performed when the student-athlete reports asymptomatic.
     - Consideration may be given to allow exertional activity with the certified athletic trainer prior to follow-up ImPACT testing.
     - Further testing as indicated.
     - Ideally post injury ImPACT test data will be interpreted by a neuropsychologist.
   - *Balance Error Scoring System*
     - Follow-up testing is performed when the student-athlete reports asymptomatic.
Consideration may be given to allow exertional activity with the certified athletic trainer to follow-up BESS testing
- Further testing as needed

14. After diagnosing the concussed student-athlete and deciding on a management plan the following progression for return to activity should be observed.
   a. Asymptomatic at rest
   b. Asymptomatic with light exertion (e.g. exercise bike).
   c. Asymptomatic with sport specific activity (e.g. lifting, agility drills, skating)
   d. Asymptomatic with non-contact drills
   e. Asymptomatic with contact drills
   f. Return to game activity
      If symptoms return during any part of the progression, the student-athlete will drop back to the previous level until the next day and repeat progression.

15. Each discussion will be managed on an individual basis and will be documented in the student athlete’s medical record.

16. Final authority of Return to Play shall reside with the team physician or the designee (ATC).

17. The written concussion management plan will be reviewed annually by the Athletic Medicine staff and HWC medical director and be revised to reflect any new research development and/or medical recommendations.