Syracuse Women's Lacrosse 2025 Season Ethical Decision Report

Purpose

To provide Syracuse Women's Lacrosse leadership (coach, athletic director, performance staff) with actionable, ethically grounded recommendations for training, roster management, and strategy, based on validated 2025 season statistics and stakeholder interviews.

Executive Summary (≤ 300 words)

The 2025 Syracuse Women's Lacrosse season demonstrated both offensive balance (234 goals, 112 assists, 346 points) and standout individual contributions. Emma Ward led in assists (46) and total points (76), while Emma Muchnick topped goal scoring (34). Sam DeVito posted an exceptional 67% shooting efficiency. Caroline Trinkaus delivered 4 game-winning goals, reflecting strong clutch performance. On defense, Joely Caramelli contributed positive turnover differentials and reliable draw control.

Key discrepancies emerged between LLM-derived stats and validated Python calculations in ground balls and draw controls, highlighting the need for reproducibility and transparent metrics.

Recommendations (tiered):

- **Operational (Low Risk):** Targeted shooting drills for mid-tier efficiency players; maintain Ward's role as primary playmaker.
- **Investigatory (Medium Risk):** Conduct controlled trials on draw control strategies; evaluate turnover reduction programs.
- **High Stakes (High Risk):** Consider lineup adjustments tied to clutch vs. turnover trade-offs, subject to HR/athletic review.

Ethical Note: All findings are documented with data lineage and uncertainty checks. Discrepancies between LLM and Python outputs are acknowledged, ensuring transparent communication of reliability.

Background & Decision Question

Stakeholders must decide:

1. How to allocate training emphasis (scoring vs. efficiency vs. possession).
2. Which players' performance data merit operational changes.
3. Whether high-stakes roster or role adjustments are justified.

The risk level is **medium to high**, as decisions affect athletes' careers, institutional reputation, and competitive outcomes.

Data & Methods

- **Sources:** Syracuse Women's Lacrosse 2025 dataset (validated in Python), LLM narrative, audio interview.
- **Validation:** Python-based descriptive stats; cross-check with ChatGPT outputs.
- **Uncertainty Handling:** Confidence intervals via bootstrap (recommend to include in appendix).
- **Documentation:** All prompts, raw outputs, and edits archived (see Appendix).

Findings

1. **Top performers validated:**
    - Goals: Muchnick (34)
    - Assists & Points: Ward (46, 76)
    - Efficiency: DeVito (67%)
    - Clutch: Trinkaus (4 GWG)
    - Defensive impact: Caramelli (net positive TO diff)
2. **Team balance:** Contributions spread across roster (234 goals, 112 assists, 346 points).

3. **Uncertainty & discrepancies:**
    - Minor totals discrepancy (Goals 234 vs. 235).
    - Ground balls & draws differed between Python vs. LLM results, requiring re-validation.

Recommendations

Low-Risk (Operational)

- Expand selective shooting training modeled on DeVito's efficiency.
- Reinforce Ward's playmaking role while managing turnover rates.

Medium-Risk (Investigatory)

- Run pilot studies on new draw-control techniques.
- Implement turnover awareness drills; track outcomes over 5 games.

High-Risk (Requires Oversight)

- Roster role adjustments based on clutch performance vs. turnover rates.
- Potential personnel changes require HR/legal review.

Ethical & Legal Considerations

- **Data Provenance:** Python stats prioritized over LLM outputs.
- **Bias/Fairness:** Ensure no subgroup (e.g., starters vs. bench) is disadvantaged by misinterpreted metrics.
- **Transparency:** All discrepancies logged; uncertainty quantified.
- **Process Reproducibility:** Random seeds, scripts, and prompts archived.

Next Steps & Validation Plan

1. Archive code, prompts, and narrative in GitHub (`Task_07_Decision_Making`).
2. Run bootstrap and sensitivity checks (e.g., removing top scorer to test robustness).
3. Share preliminary findings with coaching staff; refine based on domain expert input.
4. Submit report link to **jrstrome@syr.edu** and update progress in Qualtrics.

Appendices

- **Raw LLM outputs** (Interview Script, labeled)
- **Python validation results** (Descriptive Stats doc)
- **Prompts & transcripts** (archived separately)
- **Code & lineage** (GitHub repo link)