

### Biomedical Scientific Knowledge

1. Demonstrate an understanding of biomedical scientific knowledge in the biomedical, translational, and/or clinical sciences. \*
2. Critically analyze and evaluate literature in the biomedical sciences to discover and implement new knowledge and skills. #
3. Demonstrate advanced understanding of a range of technical and conceptual approaches used in biomedical sciences research. ^

\*Core and advanced courses, oral qualifying exam, annual progress report/meeting

#WIPS, journal club, lab meetings, research proposal, annual progress report/meeting

^Oral qualifying exam, annual progress report/meeting, individual research, independent research, final defense, publications

### Communication Skills

1. Demonstrate effective oral and written communication skills. \*
2. Articulate the significance and implications of one's own work to scientific and lay audiences. #
3. Demonstrate teaching and mentoring skills. ^

\*WIPS, journal club, oral qualifying exam, research proposal, annual progress report/meeting, final defense, presentations, publications

# WIPS, lab meetings, research proposal, annual progress report/meeting, presentations, Sci Communication course, recruitment

^ annual progress report/meeting, TA activities, Core Forum, summer undergraduate degree programs (SMART, TABS, JAMP, etc.), mentoring lab mates, journal club, community service (e.g., FW Science Museum, Vision Screening), IPE activities

### Professionalism, Ethics and Collegiality

1. Exemplify established professional codes of conduct, including following through on tasks, accepting responsibility for one's actions, and accurately representing actions and events. \*
2. Establish rapport with others that encourages a team-based, goal-oriented environment. #
3. Demonstrate ethical behavior and comply with institutional policies, protocols, and procedures. ^

\*annual progress report/meeting, Nonprofessional conduct & sanctions, attendance at required school activities

#annual progress report/meeting, TBLs, IPE, lab collaborative behavior

^annual progress report/meeting, IACUC, IRB, CITI, HIPAA, Biosafety

### Research and Analytic Skills

1. Demonstrate ability to develop and clearly state hypotheses and design aims and experimental approaches to test proposed hypotheses. \*
2. Demonstrate mastery of technical and conceptual approaches. #
3. Demonstrate scientific rigor and reproducibility through accurate data analysis leading to sound scientific conclusions. ^

\*Oral qualifying exam, research proposal, annual progress report/meeting, final defense

# lab rotations, annual progress report/meeting, research proposal, final defense, publications, presentations

^ lab notebooks, research proposal, annual progress report/meeting, final defense, publications, grant applications, presentations

### Career Development and Collaboration

1. Engage in independent learning and networking. \*

2. Critically examine and synthesize ideas, methods, and practices of others. #
3. Develop and implement an Individual Development Plan and respond to constructive feedback. ^

\*scientific meetings, workshops, research proposal, annual progress report/meeting, final defense, seminar speakers, IPEs

#Oral qualifying exam, annual progress report/meeting, research proposal, final defense, WIPS, journal club,

^IDP, annual progress report/meeting, publications, grant applications

Approved by Graduate Council 10/3/2019