## Data Analytics KSAs for Curriculum Alignment

| 4. Data Manipulation |                                                                                                     |                               |                 |                                    |                    |                  |
|----------------------|-----------------------------------------------------------------------------------------------------|-------------------------------|-----------------|------------------------------------|--------------------|------------------|
|                      |                                                                                                     |                               | Bloom's         | Cross-cutting KSAs                 | Course Number/Name | Learning Outcome |
|                      | KSA Description                                                                                     | Knowledge, Skill, or Ability? | Taxonomy Level? |                                    |                    |                  |
| а                    | Explain the purpose and benefits of an API.                                                         | Knowledge                     | 2               |                                    |                    |                  |
| b                    | Explain potential uses and applications of data manipulation tools given a source and type of data. | Skill                         | 2               |                                    |                    |                  |
| С                    | Perform basic data manipulation using appropriate tools and software.                               | Skill                         | 3               | Generalist 3a, Machine Learning 4f |                    |                  |
| d                    | Create and edit simple data structures and storage, understanding how version control affects each. | SKill                         | 2               | Generalist 3b                      |                    |                  |