

# Curriculum for Combined Residency Program

#### **Comparative Medicine: Required**

| MIP 792 A                          | Graduate Seminar                     | 1 | Path 103, Tues at noon – every semester           |
|------------------------------------|--------------------------------------|---|---|
| MIP 792 C                          | Microscopy Seminar                   | 1 | DMC 101, Wed at 8am–4 semesters through residency |
| MIP 796-005                        | Comparative Medicine Seminar         | 1 | 4-6 semesters                                     |
| MIP 778                            | Pathology of Laboratory Animals      | 3 | Fall of odd years                                 |
| MIP 779                            | Laboratory Animal Pathology Rotation | 1 | Spring of even years                              |
| MIP 666                            | Writing Scientific Manuscripts       | 3 | Fall  |
| MIP 540                            | Lab Biosafety                        | 2 | Spring  |
| CM 666                             | Science and Ethics                   | 1 | Spring  |
| ERHS/STAT544                       | Biostatistics                        | 3 |   |
| CSU Supervisor Development Program |                                      |   | Obtain certification during residency.            |

#### Comparative Medicine: Highly Recommended (Based on areas of study)

| BC 463  | Molecular Genetics    | 3 | Fall |
|---------|-----------------------|---|------|
| CM 501  | Advanced Cell Biology | 4 | Fall |
| MIP 651 | Immunobiology         | 3 | Fall |

## Anatomic and Clinical Pathology Residents: Required

| MIP 792 A        | Graduate Seminar              | 1 | Path 103, Wed at 9am – every semester                 |
|------------------|-------------------------------|---|---|
| MIP 792 C        | Microscopy Seminar            | 1 | DMC 101, Wed at 8am – 6 semesters through residency   |
| MIP 796-010 (AP) | Group Study – Gross Pathology | 1 | Fall; Wed 5pm, all first years, Clinical Path 2 years |
| Rounds           | Anatomic or Clinical Path     |   | Every semester through residency                      |

#### Anatomic and Clinical Pathology Residents: Highly Recommended

|              | <u> </u>   |   |             |
|--------------|--|---|-------------|
| MIP651       | Immunobiology  | 3 | Fall        |
| MIP767       | Advanced General Pathology                           | 1 | Fall        |
| MIP766 (AP)  | Cytopathology  | 1 | Spring      |
| MIP768 (CP)  | Advanced Clinical Path                               | 1 | Spring      |
| VS 562       | Applied Data Analysis                                | 3 |             |
| or           |  |   |             |
| STAR 511/512 | Design and Data Analysis for<br>Researchers I and II | 4 | Fall/Spring |

#### Anatomic and Clinical Pathology Residents: Recommended

| CM 501 (AP/CP) | Advanced Cell Biology                 | 4      | Fall                 |
|----------------|---------------------------------------|--------|----------------------|
| or             |                                       |        |                      |
| BC 565         | Molecular Regulation of Cell Function | 3 or 4 | Spring               |
| MIP 675        | Advanced Bioanalytical Pathology      | 3      | Spring of odd years  |
| MIP 765 (AP)   | Comparative Neuropathology            | 2      | Spring of even years |
| MIP 778 (AP)   | Pathobiology of Laboratory Animals    | 3      | Fall of odd years    |
| MIP 779 (AP)   | Laboratory Animal Pathology Rotation  | 1      | Spring of even years |
| MIP643 (AP/CP) | Grant writing                         | 1      | Spring.              |

| VS 628                                | Physiology and Pathophysiology                 | 3 |                      |
|---------------------------------------|--|---|----------------------|
| ERHS 510                              | Cancer Biology                                 | 3 | Spring               |
| MIP 666                               | Writing Scientific Manuscripts                 | 3 | Fall                 |
| ERHS 542/544                          | Biostatistical Methods for Qualitative<br>Data | 3 | Fall                 |
| BC 563                                | Molecular Genetics                             | 4 | Fall                 |
| MIP 654                               | Research policies and regulation               | 1 | Fall                 |
| MIP 680A5,<br>MIP 680A6,<br>MIP 680A7 | Immunity to Infection modules                  | 3 | Spring of odd years. |
| ERHS 603                              | ToxPath  | 3 | Fall                 |
| ERHS 602                              | Toxicological Mechanisms                       | 3 | Spring               |
| ERHS 568                              | Pharmaceutical and Regulatory<br>Toxicology    | 3 | Spring               |

## Anatomic and Clinical Pathology Residents: Other possibilities

#### Microbiology Residents: Required

| MIP 792 A | Research Seminar                  | 1 | Path 103, Tues at noon – every semester |
|-----------|-----------------------------------|---|---|
| MIP 700   | Topics in Microbiology            | 1 | Once per year, minimum 4 semesters      |
| MIP 654   | Research Policies and Regulations | 1 | Fall                                    |

## **Microbiology Residents: Highly Recommended**

| MIP 540    | Biosafety in Research Labs     | 2       | Spring            |
|------------|--------------------------------|---------|-------------------|
| MIP 581A5, | Advanced Virology modules      | 3 total | Spring even years |
| MIP 581A6, |                                |         |                   |
| MIP 581A7  |                                |         |                   |
| MIP 651    | Immunobiology                  | 3       | Fall              |
| MIP 580B1, | Bacterial Pathogenesis modules | 3 total | Fall              |
| MIP 580B2, |                                |         |                   |
| MIP 580B3  |                                |         |                   |
| Statistics | Course determined by graduate  | 3-4     |                   |
|            | committee                      |         |                   |

## **MIP Graduate Degree Credit Requirements**

Additional specific <u>coursework</u> providing instruction in a discipline related to the MS or PhD degree may be required as recommended by the student's graduate committee.

| MS |   | PhD |   |
|----|---|-----|---|
|    | 30 credits total                        |     | 72 credits total                                    |
|    | 24 credits at CSU                       |     | 30 credits can be transferred from MS or DVM degree |
|    | 16 credits must be 500+                 |     | 21 credits must be 500+ (beyond MS)                 |
|    | 12 credits must be regular courses      |     | 16 credits must be regular courses                  |
|    | 9 credits must be regular w/ MIP prefix |     | 13 credits must be regular w/ MIP prefix            |