|  |  |  |
| --- | --- | --- |
| Track 1: | Track 2: |  Track 3: |
| *Licensure for Physics 9-12**33 credits* | *Licensure for Chemistry 9-12**28-32 credits* | *Licensure for Life Science 9-12* *28 credits* |
| \_\_\_\_\_\_\_\_ PHYS 191 (4) (F) | \_\_\_\_\_\_\_\_ CHEM 125 (4)  | \_\_\_\_\_\_\_\_ BIOL 101 (4) |
| \_\_\_\_\_\_\_\_ PHYS 200 (4) (S) | \_\_\_\_\_\_\_\_ CHEM 250 (4)  | \_\_\_\_\_\_\_\_ BIOL 201 (4)  |
| \_\_\_\_\_\_\_\_ PHYS 211 (4) (F) | \_\_\_\_\_\_\_\_ CHEM 251 (4)  | \_\_\_\_\_\_\_\_ BIOL 202 (4)  |
| \_\_\_\_\_\_\_\_ PHYS 320 (4) (S) | \_\_\_\_\_\_\_\_ CHEM 255 (4)  | \_\_\_\_\_\_\_\_ BIOL 305 (S), 302 **OR** 307 (F) (4) |
| \_\_\_\_\_\_\_\_ PHYS 332 (1) (F/S) | \_\_\_\_\_\_\_\_ CHEM 315 (4)  | \_\_\_\_\_\_\_\_ BIOL 316 (4) |
| \_\_\_\_\_\_\_\_ MATH 119 (4)  | \_\_\_\_\_\_\_\_ CHEM 201 (0-1)  | \_\_\_\_\_\_\_\_ BIOL 323 (F) **OR** 327 (F) (4) |
| \_\_\_\_\_\_\_\_ MATH 120 (4)  | \_\_\_\_\_\_\_\_ CHEM 202 (0-1)  | \_\_\_\_\_\_\_\_ 337 (F) (4) |
| \_\_\_\_\_\_\_\_ MATH 239 (4) | \_\_\_\_\_\_\_\_ CHEM 203 (0-1)  |  |
| \_\_\_\_\_\_\_\_ MATH 337 (4) (S) | \_\_\_\_\_\_\_\_ CHEM 205 (0-1)  |  |
|  | \_\_\_\_\_\_\_\_ CHEM 349 (1)\_\_\_\_\_\_\_\_ CHEM 360 (2) |  |

**Requirements for Teachers of the Sciences, Grades 5-12** (May 2023)

*Natural Sciences Major, Secondary Education Minor*

Completion of a **capstone** (done during senior year):

\_\_\_\_\_\_\_\_ EDUC 362 Student Teaching 5-12 (16 credits) \*noted below\*

**Requirements for MN Licensure in General Science 5-8**

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_ BIOL 101  | Foundations of Biology (4)*\** *Included in track 3*  |
| \_\_\_\_\_\_\_\_ BIOL 201  | Intermediate Cell Biology and Genetics (4)*\* Included in track 3* |
| \_\_\_\_\_\_\_\_ CHEM 125  | Introduction to Chemical Structures and Properties (4)*\** *Included in track 2* |
| \_\_\_\_\_\_\_\_ CHEM 201  | Purification/Separation Lab I (0-1*)\* Included in track 2* |
| \_\_\_\_\_\_\_\_ PHYS 105  | Physics for Life Sciences I (F) (4) \**Not required for track 1*  |
| \_\_\_\_\_\_\_\_ PHYS 106  | Physics for Life Sciences II (S) (4) \**Not required for track 1*  |
| \_\_\_\_\_\_\_\_ EDUC 278  | Multidisciplinary Science for Mid-Level Educators (Spring – *even years*) (4)  |
|  |  |

Track 1: 17 credits Track 2: 20 credits Track 3: 17 credits

**Foundational Education Courses Required for Licensure** (44-45 credits)

\_\_\_\_\_\_ EDUC 111 Introduction to Teaching and learning in a Diverse World (4 credits)**[CI]**

\_\_\_\_\_\_\_ First-Year Teacher Shadow Field Experience

\_\_\_\_\_\_ EDUC 203 Human Growth and Development (4 credits) **[SW, J1]**Pre-req: EDUC 111

 \_\_\_\_\_\_EDUC 213 Clinical Experience 5-8/K-12 Diversity Immersion (1 or 2 credits)

* Pre-req: EDUC 111 & First-Year Teacher Shadow

\_\_\_\_\_\_\_EDUC 305 Human Exceptionalities (1 credit)

* Pre-req: EDUC 203 or permission of instructor

\_\_\_\_\_\_\_EDUC 352 Teaching Reading in the Middle/Secondary Classroom (2 credits)

* Pre-req: EDUC 379A

\_\_\_\_\_\_\_EDUC 355 Science Pedagogy 9-12 (4 credits) **Fall Only [EX]**

* Pre-req: Acceptance to the Education Program and taken with EDUC 379A

\_\_\_\_\_\_\_ EDUC 358Mid-Level Pedagogy: Science (2- 4 credits) **Fall Only**

* Acceptance to the Education Program

\_\_\_\_\_\_\_ EDUC 359 Issues in Education (1 credit) (Take semester prior to student teaching)

* Pre-req: unconditional acceptance into the Education Program)

\_\_\_\_\_\_\_ EDUC 379A Educational Psychology (4 credits) **[SW, QR, TF]**Pre-req: EDUC 203,

taken with pedagogy class.

\_\_\_\_\_\_\_ EDUC 390 Ethics in Human Relations (4 credits) **[BN, CS]**

* Pre-req: Acceptance into the Education Program

\_\_\_\_\_\_\_\_ Passing Scores on the MN Teacher Licensure exams in content and pedagogy.

*Capstone Experience* Pre-req: successful completion of all requirements

\_\_\_\_\_\_\_ EDUC 362 Student Teaching(16 credits)