# INTEGRATIVE SCIENCE, B.S. (SCIENCE) 

Begin Campus: Any Penn State Campus
End Campus: University Park

## Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2024-25 academic year. To access previous years' suggested academic plans, please visit the archive (https:// bulletins.psu.edu/undergraduate/archive/) to view the appropriate Undergraduate Bulletin edition.

## General Option: Integrative Science, B.S. at University Park Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\# } \dagger}$ | 4 CAS 100A, 100B, or 100C $(G W S)^{\ddagger}$ | 3 |
| CHEM 110 (GN) ${ }^{\text {*\# }}$ | 3 CHEM 111 (GN) | 1 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 CHEM 112 | 3 |
| MATH 140 or 140B (GQ) ${ }^{\text {*\#\# } \dagger}$ | 4 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| PSU 16 (FYS) | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | Supporting Course (Consult with academic adviser for options) | 3 |

## Second Year

Fall CreditsSpring Credits
$\left.\begin{array}{lcc} & \begin{array}{c}1 \text { BIOL 220W, 230W, 240W, or } \\ 161 \text { and } 162\end{array} & 4 \\ \text { CHEM } 113 & 3 \text { Life, Mathematical, or }\end{array}\right)$ options)
Supporting Course (Consult 3 options)

| General Education Course (GS) | 3 |  |
| :---: | :---: | :---: |
|  | 16 | 13 |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 250 or 211 (GN) ${ }^{\text {*\# }}$ | 4 PHYS 251 or 212 | 4 |
| STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | 3-4 400-Level Life, Mathematical, or Physical Science Course ${ }^{*}$ | 3 |
| Life, Mathematical, or Physical Science Course | 3 ENGL 202C, 202A, 202B, or 202D (GWS) ${ }^{\ddagger}$ | 3 |
| General Education Course (Integrative Studies) | 3 General Education Course (GH) | 3 |
| Supporting Course (Consult with academic adviser for options) | 3 Supporting Course (Consult with academic adviser for options) | 3 |
|  | 16-17 | 16 |
| Fourth Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 213 (or Supporting Course) | 2 400-Level Life, <br> Mathematical, or Physical Science Course ${ }^{*}$ | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Supporting Course | 3 |
| 400-Level Life, <br> Mathematical, or Physical <br> Science Course ${ }^{*}$ | 3 General Education Course (GHW) | 3 |
| 400-Level Supporting Course | 3 General Education Course (Exploration) | 3 |
| General Education Course (Integrative Studies) | 3 Supporting Course (Consult with academic adviser for options) | 3 |
|  | 13 | 15 |
| Total Credits 120-121 |  |  |
| * Course requires a grade of C or better for the major <br> $\ddagger$ Course requires a grade of C or better for General Education <br> \# Course is an Entrance to Major requirement <br> $\dagger$ Course satisfies General Education and degree requirement |  |  |
| University Requirements and General Education Notes: |  |  |
| US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures). |  |  |
| $\mathrm{W}, \mathrm{M}, \mathrm{X}$, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement. |  |  |
| General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and $G Q$ ) require a grade of ' $C$ ' or better. |  |  |
| All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and |  |  |

ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100C. Each course is 3 credits.

## General Option (ALEKS Placement in MATH 22): Integrative Science, B.S. at University Park Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

| First Year |  |  |
| :---: | :---: | :---: |
| Fall | Credits Spring | Credits |
| BIOL 110 (GN) ${ }^{\text {*\#t }}$ | 4 CAS 100A, 100B, or 100 C (GWS) ${ }^{\ddagger}$ | 3 |
| MATH 22 | 3 CHEM 110 (GN) ${ }^{\text {*\#t }}$ | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 MATH 26 | 3 |
| General Education Course (GS) | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| PSU 16 (FYS) | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | 14 | 15 |
| Second Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 111 (GN) | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| CHEM 112 | 3 CHEM 113 | 1 |
|  | 4 Life, Mathematical, or Physical Science Course | 3 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Integrative and Applied Science Course (from Department List) | 3 |
| Supporting Course (Consult with academic adviser for options) | 3 General Education Course (GA) | 3 |


|  | 14 | 14 |
| :---: | :---: | :---: |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 250 or 211 (GN) ${ }^{\text {* }}$ | 4 ENGL 202C, 202A, 202B, or 202D (GWS) ${ }^{\ddagger}$ | 3 |
| STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | $3-4$ PHYS 251 or 212 | 4 |
| Life, Mathematical, or Physical Science Course | 3 400-Level Life, <br> Mathematical, or Physical Science Course ${ }^{*}$ | 3 |
| General Education Course (Integrative Studies) | 3 Life, Mathematical, or Physical Science Course | 3 |
| Supporting Course (Consult with academic adviser for | 3 General Education Course (GH) | 3 |

## Fourth Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 213 (or Supporting Course) | 2 400-Level Life, <br> Mathematical, or Physical Science Course ${ }^{*}$ | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Supporting Course | 3 |
| 400-Level Life, <br> Mathematical, or Physical Science Course* | 3 General Education Course (GHW) | 3 |
| 400-Level Supporting Course | 3 General Education Course (Exploration) | 3 |
| General Education Course (Integrative Studies) | 3 Supporting Course (Consult with academic adviser for options) | 3 |
| Supporting Course (Consult with academic adviser for options) | 3 |  |
|  | 16 | 15 |

Total Credits 120-121

* Course requires a grade of C or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).
$\mathrm{W}, \mathrm{M}, \mathrm{X}$, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and $G Q$ ) require a grade of ' $C$ ' or better.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100 C. Each course is 3 credits.

## General Option: Integrative Science, B.S. at Commonwealth Campuses

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\#t }}$ | 4 CAS 100A, 100B, or 100C (GWS) ${ }^{\ddagger}$ | 3 |
| CHEM 110 (GN) ${ }^{\text {\#\# } \dagger}$ | 3 CHEM 111 (GN) | 1 |
| MATH 140 or 140B (GQ) ${ }^{* \pm \# t}$ | 4 CHEM 112 | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| First- Year Seminar | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | Supporting Course (Consult with academic adviser for options) | 3 |
|  | 15 | 16 |

## Second Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| CHEM 113 | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| Life, Mathematical, or Physical Science Course | 3 Life, Mathematical, or Physical Science Course | 3 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Integrative and Applied Science Course (from Department List) | 3 |
| General Education Course (GS) | 3 General Education Course (GA) | 3 |
| Supporting Course (Consult with academic adviser for options) | 3 |  |
| Supporting Course (Consult with academic adviser for options) | 3 |  |
|  | 16 | 13 |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 250 or 211 (GN) ${ }^{\text {*\# }}$ | 4 ENGL 202C, 202A, 202B, or 202D (GWS) ${ }^{\ddagger}$ | 3 |
| STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | $3-4$ PHYS 251 or 212 | 4 |
| Life, Mathematical, or Physical Science Course | 3 400-Level Life, Mathematical, or Physical Science Course ${ }^{*}$ | 3 |
| General Education Course (Integrative Studies) | 3 General Education Course (GH) | 3 |


| Supporting Course (Consult <br> with academic adviser for <br> options) | 3 Supporting Course (Consult <br> with academic adviser for <br> options) | 3 |
| :--- | :--- | :--- |


|  | 16-17 | 16 |
| :---: | :---: | :---: |
| Fourth Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 213 (or Supporting Course) | 2 400-Level Life, <br> Mathematical, or Physical Science course ${ }^{*}$ | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Supporting Course | 3 |
| 400-Level Life, Mathematical, or Physical Science Course* | 3 General Education Course (GHW) | 3 |
| 400-Level Supporting Course | 3 General Education Course (Exploration) | 3 |
| General Education Course (Integrative Studies) | 3 Supporting course (Consult with academic adviser for options) | 3 |
|  | 13 | 15 |

Total Credits 120-121

* Course requires a grade of $C$ or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

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$\mathrm{W}, \mathrm{M}, \mathrm{X}$, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of ' $C$ ' or better.

## Legal Studies, Government Service, Public Policy Option: Integrative Science, B.S. at University Park Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {\#\#t }}$ | 4 CAS 100A, 100B, or 100 C (GWS) ${ }^{\ddagger}$ | 3 |
| CHEM 110 (GN) ${ }^{\text {\#\# } \dagger}$ | 3 CHEM 111 (GN) | 1 |
| MATH 140 or 140B (GQ) ${ }^{\text {#\# }}$ ¢ | 4 CHEM 112 | 3 |
| ENGL 15, 30H, or ESL 15 $(G W S)^{\ddagger}$ | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| PSU 16 (FYS) | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | Supporting Course (Consult with academic adviser for options) | 3 |
|  | 15 | 16 |
| Second Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 113 | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| Life, Mathematical, or Physical Science Course | 3 Life, Mathematical, or Physical Science Course | 3 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| Legal Studies, Government Service, Public Policy Course (from Department List) | 3 General Education Course (GA) | 3 |
| General Education Course (GS) | 3 |  |
| Supporting Course (Consult with academic adviser for options) | 3 |  |

## Third Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 250 or 211 (GN) ${ }^{\text {*\# }}$ | 4 PHYS 251 or 212 | 4 |
| STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | $\begin{aligned} & \text { 3-4 ENGL 202C, 202A, 202B, or } \\ & \text { 202D (GWS) } \end{aligned}$ | 3 |
| Life, Mathematical, or Physical Science Course | 3 400-Level Life, <br> Mathematical, or Physical Science Course* | 3 |
| Legal Studies, Government Service, Public Policy Course (from Department List) | 3 Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |


| General Education Course <br> (Integrative Studies) | 3 General Education Course <br> $(\mathrm{GH})$ | 3 |
| :--- | :--- | :--- |

## Fourth Year

Fall
PHYS 213 (or Supporting
Course)
CreditsSpring
Credits
2 400-Level Life,
3
Mathematical, or Physical Science Course ${ }^{*}$

| PHYS 214 (or Supporting Course) | 2 400-Level Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| :---: | :---: | :---: |
| 400-Level Life, Mathematical, or Physical | 3 General Education Course (GHW) | 3 |

Mathematical, or Physical
Science Course ${ }^{*}$
400-Level Legal Studies, 3 General Education Course 3
Government Service, (Exploration)
Public Policy Course (from
Department List)

| General Education Course <br> (Integrative Studies) | 3 Supporting Course (Consult <br> with an academic adviser for <br> options) | 3 |
| :--- | :--- | :--- |

## 13

## Total Credits 120-121

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## University Requirements and General Education Notes:

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## Legal Studies, Government Service, Public Policy Option (ALEKS Placement in MATH 22): Integrative Science, B.S. at University Park Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\# } \dagger}$ | 4 CAS 100A, 100B, or 100C (GWS) ${ }^{\ddagger}$ | 3 |
| MATH 22 | 3 CHEM 110 (GN) ${ }^{\text {*\#t }}$ | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 MATH 26 | 3 |
| General Education Course (GS) | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| PSU 16 (FYS) | 1 Supporting Course (Consult with academic adviser for options) | 3 |


|  | 14 | 15 |
| :---: | :---: | :---: |
| Second Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 111 (GN) | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| CHEM 112 | 3 CHEM 113 | 1 |
| MATH 140 or 140B (GQ) ${ }^{\star \ddagger \# \dagger}$ | 4 Life, Mathematical, or Physical Science Course | 3 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| Legal Studies, Government Service, Public Policy Course (from Department List) | 3 General Education Course (GA) | 3 |


|  | 14 | 14 |
| :---: | :---: | :---: |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 250 or 211 (GN) ${ }^{\text {*\# }}$ | 4 PHYS 251 or 212 | 4 |
| STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | $\begin{aligned} & \text { 3-4 ENGL 202C, 202A, 202B, or } \\ & \text { 202D (GWS) } \end{aligned}$ | 3 |
| Life, Mathematical, or Physical Science Course | 3 400-Level Life, <br> Mathematical, or Physical Science Course* | 3 |
| Legal Studies, Government Service, Public Policy Course (from Department List) | 3 Life, Mathematical, or Physical Science Course | 3 |
| General Education Course (Integrative Studies) | 3 General Education Course (GH) | 3 |

Fourth Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 213 (or Supporting Course) | 2 400-Level Life, <br> Mathematical, or Physical Science Course ${ }^{*}$ | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| 400-Level Life, <br> Mathematical, or Physical Science Course* | 3 Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| 400-Level Legal Studies, Government Service, Public Policy Course (from Department List) | 3 General Education Course (GHW) | 3 |
| General Education Course (Integrative Studies) | 3 General Education Course (Exploration) | 3 |
| Supporting Course (Consult with academic adviser for options) | 3 |  |

## Total Credits 120-121

* Course requires a grade of C or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

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All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100C. Each course is 3 credits.

## Legal Studies, Government Service, Public Policy Option: Integrative Science, B.S. at Commonwealth Campuses

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## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\# }}$ | 4 CAS 100A, 100B, or 100C (GWS) ${ }^{\ddagger}$ | 3 |
| CHEM 110 (GN) ${ }^{\text {*\# }}$ | 3 CHEM 111 (GN) | 1 |
| MATH 140 or 140B (GQ) ${ }^{\text {*) } \ddagger \dagger}$ | 4 CHEM 112 | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| First-Year Seminar | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | Supporting Course (Consult with academic adviser for options) | 3 |
|  | 15 | 16 |
| Second Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 113 | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| Life, Mathematical, or Physical Science Course | 3 Life, Mathematical, or Physical Science Course | 3 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| Legal Studies, Government Service, Public Policy Course (from Department List) | 3 General Education Course (GA) | 3 |
| General Education Course (GS) | 3 |  |
| Supporting Course (Consult with academic adviser for options) | 3 |  |

16
13

## Third Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 250 or 211 (GN) ${ }^{\text {* }}$ | 4 PHYS 251 or 212 | 4 |
| STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | $\begin{aligned} & \text { 3-4 ENGL 202C, 202A, 202B, or } \\ & \text { 202D (GWS) } \end{aligned}$ | 3 |
| Life, Mathematical, or Physical Science Course | 3 400-Level Life, <br> Mathematical, or Physical Science Course* | 3 |
| Legal Studies, Government Service, Public Policy Course (from Department List) | 3 Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |


| General Education Course (Intergrative Studies) | 3 General Education Course (GH) | 3 |
| :---: | :---: | :---: |
|  | 16-17 | 16 |
| Fourth Year |  |  |
| Fall | Credits Spring | Credits |
| PHYS 213 (or Supporting Course) | 2 400-Level Life, <br> Mathematical, or Physical Science Course* | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Legal Studies, Government Service, Public Policy Course (from Department List) | 3 |
| 400-Level Life, <br> Mathematical, or Physical Science Course ${ }^{*}$ | 3 General Education Course (GHW) | 3 |
| 400-Level Legal Studies, Government Service, Public Policy Course (from Department List) | 3 General Education Course (Exploration) | 3 |
| General Education Course (Integrative Studies) | 3 Supporting Course (Consult with academic adviser for options) | 3 |

1315

## Total Credits 120-121

* Course requires a grade of $C$ or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).
$W, M, X$, and $Y$ are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of ' $C$ ' or better.

## Biological Sciences and Health Professions Option: Integrative Science, B.S. at University Park Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\#t }}$ | 4 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| CHEM 110 (GN) ${ }^{\text {*\# }}$ | 3 CHEM 111 (GN) | 1 |
| MATH 140 or 140B (GQ) ${ }^{\text {*\#\# }}$ | 4 CHEM 112 | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| PSU 16 (FYS) | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | Supporting Course (Consult with academic adviser for options) | 1 |

## Second Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| CHEM 113 | $\begin{aligned} & 1 \text { BIOL 222, 230W, 322, BMB } \\ & \text { 211, BMB 251, MICRB 251, } \\ & \text { or MICRB 201 } \end{aligned}$ | 3-4 |
| CHEM 210 or 202 | 3 CHEM 212 or 203 | 3 |
| HPA 101 | 3 STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | 3-4 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| General Education Course (GS) | 3 General Education Course (GA) | 3 |
| Supporting Course (Consult with academic adviser for options) | 3 |  |
|  | 16 | 15-17 |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 213W (or Supporting Course) | 2 CAS 100A, 100B, or 100C (GWS) ${ }^{\ddagger}$ | 3 |
| PHYS 250 or 211 (GN) ${ }^{\text {\#\# }}$ | 4 PHYS 251 or 212 | 4 |
| ENGL 202C, 202A, 202B, or 202D (GWS) ${ }^{\ddagger}$ | 3 400-Level BIOL, BIOTC, BMB, or MICRB Course ${ }^{*}$ | 3 |
| 400-Level BIOL, BIOTC, BMB, or MICRB Course ${ }^{*}$ | 3 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| General Education Course (Integrative Studies) | 3 |  |

## Fourth Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 213 (or Supporting Course) | 2 Healthcare/Medicine/Ethics <br> Course (from Department List) | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Healthcare/ <br> Medicine/Ethics Course | 3 |
| 400-Level BIOL, BIOTC, BMB, or MICRB Course* | 3 General Education Course (GHW) | 3 |
| 400-Level Healthcare/ Medicine/Ethics Course | 3 General Education Course (Exploration) | 3 |
| General Education Course (GH) | 3 Supporting Course (Consult with academic adviser for options) | 3 |
| General Education Course (Integrative Studies) | 3 |  |
|  | 16 | 15 |

## Total Credits 120-122

* Course requires a grade of C or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).
$\mathrm{W}, \mathrm{M}, \mathrm{X}$, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ ) require a grade of ' C ' or better.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100C. Each course is 3 credits.

## Biological Sciences and Health Professions Option <br> (ALEKS Placement in MATH 22): Integrative Science, B.S. at University Park Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\# } \dagger}$ | 4 CAS 100A, 100B, or 100C (GWS) ${ }^{\ddagger}$ | 3 |
| MATH 22 | 3 CHEM 110 (GN) ${ }^{\text {*\#t }}$ | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 MATH 26 | 3 |
| General Education Course (GS) | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| PSU 16 (FYS) | 1 Supporting Course (Consult with academic adviser for options) | 3 |


|  | 14 | 15 |
| :---: | :---: | :---: |
| Second Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 111 (GN) | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| CHEM 112 | 3 CHEM 113 | 1 |
| MATH 140 or 140B (GQ) ${ }^{\text {*} \# \dagger}$ | 4 CHEM 210 or 202 | 3 |
| HPA 101 | 3 STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | 3-4 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| General Education Course (GA) | 3 |  |
|  | 17 | 14-15 |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 212 or 203 | $\begin{aligned} & 3 \text { BIOL 222, 230W, 322, BMB } \\ & 211 \text {, BMB 251, MICRB 251, } \\ & \text { or MICRB } 201 \end{aligned}$ | 3-4 |
| PHYS 250 or 211 (GN)*\# | 4 CHEM 213W (or Supporting Course) | 2 |
| ENGL 202C, 202A, 202B, or 202D (GWS) ${ }^{\ddagger}$ | 3 PHYS 251 or 212 | 4 |
| 400-Level BIOL, BIOTC, BMB, or MICRB Course | 3 400-Level BIOL, BIOTC, BMB, or MICRB Course | 3 |
| General Education Course (Integrative Studies) | 3 Supporting Course (Consult with academic adviser for options) | 1 |

## Fourth Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 213 (or Supporting Course) | 2 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| PHYS 214 (or Supporting Course) | 2 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| 400-Level BIOL, BIOTC, BMB, or MICRB Course ${ }^{\star}$ | 3 400-Level Healthcare/ Medicine/Ethics Course | 3 |
| 400-Level Healthcare/ <br> Medicine/Ethics Course | 3 General Education Course (GHW) | 3 |
| General Education Course (GH) | 3 General Education Course (Exploration) | 3 |
| General Education Course (Integrative Studies) | 3 |  |
|  | 16 | 15 |

## Total Credits 120-122

* Course requires a grade of C or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).
$\mathrm{W}, \mathrm{M}, \mathrm{X}$, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30 H and CAS 100A/CAS 100B/CAS 100 C . Each course is 3 credits.

## Biological Sciences and Health Professions Option: Integrative Science, B.S. at Commonwealth Campuses

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

## First Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| BIOL 110 (GN) ${ }^{\text {*\#t }}$ | 4 CAS 100A, 100B, or 100C (GWS) ${ }^{\ddagger}$ | 3 |
| CHEM 110 (GN) ${ }^{\text {\#\# } \dagger}$ | 3 CHEM 111 (GN) | 1 |
| MATH 140 or 140B (GQ) ${ }^{* \pm \# \dagger}$ | 4 CHEM 112 | 3 |
| ENGL 15, 30H, or ESL 15 (GWS) ${ }^{\ddagger}$ | 3 Global, Social, and Personal Awareness Course (from Department List) | 3 |
| First-Year Seminar | 1 Supporting Course (Consult with academic adviser for options) | 3 |
|  | Supporting Course (Consult with academic adviser for options) | 3 |
|  | 15 | 16 |

## Second Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| CHEM 113 | 1 BIOL 220W, 230W, 240W, or 161 and 162 | 4 |
| CHEM 210 or 202 | 3 CHEM 212 or 203 | 3 |
| HPA 101 | 3 STAT 250 or 200 (GQ) ${ }^{\ddagger}$ | 3-4 |
| Teamwork and Interpersonal Communication Course (from Department List) | 3 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| General Education Course (GS) | 3 General Education Course (GA) | 3 |
| Supporting Course (Consult with academic adviser for options) | 1 |  |


|  | 14 | 16-17 |
| :---: | :---: | :---: |
| Third Year |  |  |
| Fall | Credits Spring | Credits |
| CHEM 213W (or Supporting Course) | 2 BIOL 222, 230W, 322, BMB 211, BMB 251, MICRB 251, or MICRB 201 | 3-4 |
| PHYS 250 or 211 (GN) ${ }^{\text {* }}$ | 4 PHYS 251 or 212 | 4 |
| $\begin{aligned} & \text { ENGL 202C, 202A, 202B, or } \\ & \text { 202D (GWS) } \end{aligned}$ | 3 400-Level BIOL, BIOTC, BMB, or MICRB Course ${ }^{*}$ | 3 |
| 400-Level BIOL, BIOTC, BMB, or MICRB Course ${ }^{\star}$ | 3 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| General Education Course (Integrative Studies) | 3 |  |

## Fourth Year

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| PHYS 213 (or Supporting Course) | 2 Healthcare/Medicine/Ethics Course (from Department List) | 3 |
| PHYS 214 (or Supporting Course) | 2 400-Level Healthcare/ Medicine/Ethics Course | 3 |
| 400-Level BIOL, BIOTC, BMB, or MICRB Course* | 3 General Education Course (GHW) | 3 |
| 400-Level Healthcare/ Medicine/Ethics Course | 3 General Education Course (Exploration) | 3 |
| General Education Course (GH) | 3 Supporting Course (Consult with academic adviser for options) | 3 |
| General Education Course (Integrative Studies) | 3 |  |
|  | 16 | 15 |

Total Credits 120-122

* Course requires a grade of $C$ or better for the major
$\ddagger$ Course requires a grade of C or better for General Education
\# Course is an Entrance to Major requirement
† Course satisfies General Education and degree requirement


## University Requirements and General Education Notes:

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$W, M, X$, and $Y$ are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ ) require a grade of ' C ' or better.

