[](http://www.clark.edu/)[http://www.clark.edu/](http://www.clark.edu)

**Surveying & Geomatics Technician**

Surveying is the science of establishing, locating, defining, and describing positions on the surface of the earth. These positions can be used to create maps and boundaries. Surveyors use elements of mathematics, physics, and law and work with engineers, architects, planners, geologists, environmentalists, and the public. A surveyor can work for consulting firms, construction, and federal and state agencies. Surveyors have the opportunity for creating a balance of indoor and outdoor working conditions.

**CERTIFICATE OF PROFICIENCY**

(46-50 credits)

**General Education Requirements**

**Course Number Course Description CR**

Communication Skills – 5 credits

PTWR 135 Technical Writing [1] 5

Computational Skills – 5 credits

MATH 103 Trigonometry\* 5

Human Relations – 5 credits

CMST& 210 Interpersonal Communication [1] 5

**Major Course Requirements**

**Course Number Course Description CR**

CADD 140 Basic AutoCAD 4

SURV 104 Applied Math for Surveying 5

SURV 121 Field Survey I 5

SURV 122 Field Survey II 5

SURV 123 Professional Ethics 1

SURV 163 Route Surveying 5

36

**GIS Option [2**]

SURV 125 Intro to GIS 3

SURV 250 ARC GIS I 3

SURV 252 Intro to Map Projections 2

SURV 253 Intro to GPS 2

46

**Surveying Option [2**]

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **GIS Option (46 Credits)** | | | | | | | |
| Prerequisites: Students must be ready for Math 103 to start in the fall. | | | | | | | |
|  | **Fall Quarter** | | |  | **Spring Quarter** | | |
|  | MATH | 103 | 5 |  | SURV | 104 | 5 |
|  | SURV | 121 | 5 |  | SURV | 163 | 5 |
|  | SURV | 125 | 3 |  | PTWR | 135 | 5 |
|  | SURV | 252 | 2 |  |  |  |  |
|  | Total Credits | | 15 |  | Total Credits | | 15 |
|  |  |  |  |  |  | |  |
|  | **Winter Quarter** | | |  | **Summer Quarter** | | |
|  | CADD | 140 | 4 |  | CMST | 210 | 5 |
|  | SURV | 122 | 5 |  | Total Credits | | 5 |
|  | SURV | 123 | 1 |  |  |  |  |
|  | SURV | 250 | 3 |  |  | |  |
|  | SURV | 253 | 2 |  |  |  |  |
|  | Total Credits | | 15 |  |  |  |  |
|  |  | |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Surveying Option (50 Credits)** | | | | | | | |
| Prerequisites: Students must be ready for Math 103 to start in the fall. | | | | | | | |
|  | **Fall Quarter** | | |  | **Spring Quarter** | | |
|  | MATH | 103 | 5 |  | SURV | 104 | 5 |
|  | SURV | 121 | 5 |  | SURV | 163 | 5 |
|  | SURV | 202 | 4 |  | SURV | 203 | 3 |
|  |  |  |  |  | PTWR | 135 | 5 |
|  | Total Credits | | 14 |  | Total Credits | | 18 |
|  |  |  |  |  |  | |  |
|  | **Winter Quarter** | | |  | **Summer Quarter** | | |
|  | CADD | 140 | 4 |  | CMST | 210 | 5 |
|  | SURV | 223 | 3 |  | Total Credits | | 5 |
|  | SURV | 123 | 1 |  |  | |  |
|  | SURV | 264 | 4 |  |  |  |  |
|  | SURV | 222 | 5 |  |  |  |  |
|  | Total Credits | | 17 |  |  |  |  |
|  |  |  |  |  |  |  |  |

SURV 202 Boundary Surveys 4

SURV 203 Legal Descriptions 3

SURV 223 Boundary Law I 3

SURV 264 Survey Software Applications 4

50

[1] Recommended or approved substitute (only 3 credits applied)

[2] Choose one option.

Program Notes

* Students needing to build skills in math and/or English, will be advised to complete the survey program in more than four quarters.
* Some courses have laboratory fees.
* Success in the surveying program requires minimum grade of “C” must be achieved in all major course requirements unless they are pass/no pass.