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UNIVERSITY OF
CALGARY

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CALGARY, ALBERTA, CANADA

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ACADEMIC RECORD. STUDENT IN GOOD STANDING
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TRANSCRIPT OF ACADEMIC RECORD

Name: Hemanto Bairagi
Student ID: 30030922
Birthdate: Mar 01
Print Date: 2025-10-12



INTERIM REGISTRAR

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----- Credential Awarded -----
Credential: Bachelor of Science (Honours)
Conferral: 2021-02-12
Major: Astrophysics
Major: Physics

----- Beginning of Undergraduate Programs Record -----

Transfer Credit from Athabasca University
Total Transfer Units: 6.000

----- Test Credits -----
Total Transfer Units: 6.000

Fall 2016

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|-------------------------------|--------------|--------|-------|--------|
| ARKY 201 | Introduction To Archaeology | 3.00 | 3.00 | B | 9.000 |
| GERM 202 | German I | 3.00 | 3.00 | A- | 11.100 |
| MATH 275 | Calculus for Engineers & Scie | 3.00 | 3.00 | B | 9.000 |
| PHYS 227 | Classical Physics | 3.00 | 3.00 | B | 9.000 |
| Term GPA: | 3.17 | Term Totals: | 12.00 | 12.00 | 38.100 |

Winter 2017

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|-------------------------------|--------------|--------|-------|--------|
| ASPH 213 | Introduction To Astrophysics | 3.00 | 3.00 | B+ | 9.900 |
| CPSC 217 | Intro CPSC Multidisc Study I | 3.00 | 0.00 | D+ | |
| MATH 211 | Linear Methods I | 3.00 | 3.00 | C | 6.000 |
| MATH 277 | Multivariable Calc Eng & Scie | 3.00 | 3.00 | B- | 8.100 |
| PHYS 255 | Electromagnetic Theory I | 3.00 | 3.00 | A | 12.000 |
| Term GPA: | 2.66 | Term Totals: | 15.00 | 12.00 | 39.900 |

Spring 2017

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|-------------------|--------------|--------|-------|--------|
| MATH 311 | Linear Methods II | 3.00 | 3.00 | B+ | 9.900 |
| Term GPA: | 3.30 | Term Totals: | 3.00 | 3.00 | 9.900 |

Fall 2017

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|--------------------------------|--------------|--------|-------|--------|
| ASPH 307 | Intro to Observational ASPH | 3.00 | 3.00 | B+ | 9.900 |
| MATH 375 | Diff Equations Eng & Scie | 3.00 | 3.00 | C | 6.000 |
| PHYS 341 | Classical Mechanics I | 3.00 | 3.00 | B+ | 9.900 |
| PHYS 375 | Introduction to Optics & Waves | 3.00 | 3.00 | C+ | 6.900 |
| PHYS 397 | Applied Physics Laboratory I | 3.00 | 3.00 | A- | 11.100 |
| Term GPA: | 2.92 | Term Totals: | 15.00 | 15.00 | 43.800 |

Winter 2018

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|------------------|----------------------------|--------------|--------|-------|--------|
| CHEM 203 | Gen CHEM:Change & Equil | 3.00 | 3.00 | B | 9.000 |
| Req Designation: | Extra to Degree | | | | |
| GERM 204 | German II | 3.00 | 0.00 | W | |
| MATH 377 | Vector Calc for Eng & Scie | 3.00 | 3.00 | A- | 11.100 |
| PHYS 325 | Modern Physics | 3.00 | 3.00 | A | 12.000 |
| PHYS 343 | Classical Mechanics II | 3.00 | 3.00 | B- | 8.100 |
| Term GPA: | 3.35 | Term Totals: | 12.00 | 12.00 | 40.200 |

Spring 2018

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|------------------------------|--------------|--------|-------|--------|
| CPSC 217 | Intro CPSC Multidisc Study I | 3.00 | 3.00 | B+ | 9.900 |
| ECON 201 | Principles Of Microeconomics | 3.00 | 3.00 | A | 12.000 |
| Term GPA: | 3.65 | Term Totals: | 6.00 | 6.00 | 21.900 |



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Name: Hemanto Bairagi
Student ID: 30030922
Birthdate: Mar 01
Print Date: 2025-10-12



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INTERIM REGISTRAR

Summer 2018

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|------------------------------|--------------|--------|-------|--------|
| ECON 203 | Principles Of Macroeconomics | 3.00 | 3.00 | B | 9.000 |
| PHIL 377 | Elementary Formal Logic | 3.00 | 3.00 | B | 9.000 |
| Term GPA: | 3.00 | Term Totals: | 6.00 | 6.00 | 18.000 |

Fall 2018

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|------------------------------|--------------|--------|-------|--------|
| ASPH 401 | Galactic Astrophysics | 3.00 | 3.00 | A- | 11.100 |
| MATH 433 | Mathematical Methods Physics | 3.00 | 3.00 | A | 12.000 |
| PHYS 449 | Statistical Mechanics I | 3.00 | 3.00 | A- | 11.100 |
| PHYS 455 | Electromagnetic Theory II | 3.00 | 3.00 | B | 9.000 |
| Term GPA: | 3.60 | Term Totals: | 12.00 | 12.00 | 43.200 |

Winter 2019

Program: Science Bachelor
Bachelor of Science (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|-------------------------------|--------------|--------|-------|--------|
| ASPH 503 | The Interstellar Medium | 3.00 | 3.00 | B+ | 9.900 |
| PHYS 381 | Computational Physics I | 3.00 | 3.00 | A- | 11.100 |
| PHYS 443 | Quantum Mechanics I | 3.00 | 3.00 | A- | 11.100 |
| PHYS 457 | Electromagnetic Theory III | 3.00 | 3.00 | B- | 8.100 |
| PHYS 497 | Applied Physics Laboratory II | 3.00 | 3.00 | A- | 11.100 |
| Term GPA: | 3.42 | Term Totals: | 15.00 | 15.00 | 51.300 |

Fall 2019

Program: Science Bachelor
Bachelor of Science - Honours (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|---------------------------|--------------|--------|-------|--------|
| PHYS 481 | Computational Physics II | 3.00 | 3.00 | A- | 11.100 |
| PHYS 507 | Solid State Physics | 3.00 | 3.00 | A+ | 12.000 |
| PHYS 543 | Quantum Mechanics II | 3.00 | 3.00 | A- | 11.100 |
| PHYS 597 | Senior Physics Laboratory | 3.00 | 3.00 | A | 12.000 |
| PHYS 598A | Honours Research Thesis | | 0.00 | MT | |
| Term GPA: | 3.85 | Term Totals: | 12.00 | 12.00 | 46.200 |

Winter 2020

Program: Science Bachelor
Bachelor of Science - Honours (Degree Stream)
Astrophysics (Major)
Physics (Major)

| Course | Description | Attempted | Earned | Grade | Points |
|-----------|----------------------------------|--------------|--------|-------|--------|
| ASPH 403 | Stellar Structure & Evolution | 3.00 | 3.00 | CR | |
| ASPH 509 | HighEnergyAstrophysics&Cosmology | 3.00 | 3.00 | CR | |
| PHYS 451 | Statistical Mechanics II | 3.00 | 3.00 | B+ | 9.900 |
| PHYS 501 | Relativity | 3.00 | 3.00 | A | 12.000 |
| PHYS 598B | Honours Research Thesis | 6.00 | 6.00 | CR | |
| Term GPA: | 3.65 | Term Totals: | 18.00 | 18.00 | 21.900 |

Dean's List - Faculty of Science

----- End of Transcript -----



UNIVERSITY OF CALGARY

RECOGNIZED STANDARD

The University of Calgary, established under the Statutes of the Province of Alberta, is a member of the Association of Commonwealth Universities and of the Association of Universities and Colleges of Canada.

THE ACADEMIC YEAR

In May 1973 the University began operating under a four session organization. The length of sessions, exclusive of the examination periods, are:

| | |
|---------|----------------------------------|
| Fall: | September to December (13 weeks) |
| Winter: | January to April (13 weeks) |
| Spring: | May to June (6 to 7 weeks) |
| Summer: | July to August (6 weeks) |

Courses offered during the Spring/Summer carry the same weight as if offered in the Fall/Winter Sessions.

Prior to Spring 1973 the University conducted a Winter Session of 2 thirteen week terms and Summer Session of 6 weeks during the academic year (July 1-June 30).

In January 2007, the University replaced the word Session with Term.

COURSE NUMBERING

Courses at the freshman level (immediately following Grade 12) are generally numbered in the 100's and 200's, senior courses 300's and 400's and upper level undergraduate courses 500's. Graduate courses may be 500's, 600's and 700's. In certain upper level undergraduate and graduate level courses, a decimal system may be used to identify different subject matter which may change from year to year but with the same course title and the same basic three digit number. There are also courses numbered 001-099 which are not restricted to a particular level of study.

Since July 1971 all even numbered courses denote full courses normally offered for 26 weeks over the Fall/Winter Sessions and all odd numbered courses denote half courses or less normally offered over 1 thirteen week session. Effective July 2003, this distinction was removed.

Effective July 1983, some courses numbered in the 100's may not have been counted toward degree requirements. Prior to this date, certain 100 level courses could be counted toward degree requirements in some programs.

EXPLANATION OF CODES

In January 2007, the University adopted a framework of course weights, as follows:
Earned - Course Weight: 6 = Full Course, 3 = Half Course, 1.5 = Quarter Course, .75 = Eighth Course.
This change was applied retroactively to all courses offered in previous years.

CREDIT/FAIL

Information about student performance in programmes where all or most courses are credit (CR) graded, (also known as pass/fail), may be obtained by contacting the faculty offering the programme.

Grading System – Effective September 1975

Undergraduate and Graduate Grading

| Grade | Grade Point Value (GPV) | Description |
|-------|-------------------------|--------------------------------------|
| A+ | 4.0 | Outstanding performance |
| A | 4.0 | Excellent |
| A- | 3.7 | Approaching excellent performance |
| B+ | 3.3 | Exceeding good performance |
| B | 3.0 | Good performance |
| B- | 2.7 | Approaching good performance |
| C+ | 2.3 | Exceeding satisfactory performance |
| C | 2.0 | Satisfactory performance |
| C- | 1.7 | Approaching satisfactory performance |
| D+ | 1.3 | Marginal Pass |
| D | 1.0 | Minimal pass |
| CR | | Completed requirements |
| F | 0 | Failure |
| I | 0 | Incomplete |

Symbols:

| | |
|-----|------------------------------------|
| SGR | Supplemental granted |
| AE | Aegrotat standing |
| AU | Auditor |
| X | Grade not reported |
| DFT | Deferred term work |
| DFE | Deferred final examination |
| SFE | Special deferred final examination |
| RTW | Required to Withdraw |
| W | Withdraw |
| RMW | Remedial work required |
| MT | Multi term |
| GP | Grade pending |
| I | Incomplete |
| EW | Extenuating circumstance withdraw |
| IP | In progress/future registration |

PRIOR TO SEPTEMBER 1975

| Undergraduate & Graduate Grading | | Graduate Grading only (Effective Sept. 1973) - in courses numbered 600 or higher | | |
|----------------------------------|-------------------|--|-------------------|--------------|
| Grade | Grade Point Value | Grade | Grade Point Value | Description |
| A+ | 4 | A+ | 4 | Outstanding |
| A | 4 | A | 4 | Excellent |
| A- | 4 | A- | 3.70 | - |
| B+ | 3 | B+ | 3.30 | Good |
| B | 3 | B | 3 | Satisfactory |
| B- | 3 | B- | 2.70 | - |
| C | 2 | C | 2 | Fail |
| D | 1 | D | 1 | Fail |
| F | 0 | F | 0 | Fail |

PRIOR TO SEPTEMBER 1970

From July 1, 1967 to August, 1970 a five point letter grade system was used: A = 4, B = 3, C = 2, D = 1, F = 0 with the same descriptions as above.

PRIOR TO JULY 1967 – PERCENTAGE GRADES

| | |
|-----------------------|--------------|
| First Class Standing | 80 and above |
| Second Class Standing | 65 – 79 |
| Third Class Standing | 50 – 65 |
| Fail (Undergraduate) | below 50 |

The pass grade for graduate students was 65 or higher.

NOTE: The General Faculties Council of the University has ruled that no conversion of letter grades to numerical grades will be issued.

EXPLANATION OF OTHER SYMBOLS WHICH HAVE BEEN USED PRIOR TO 1970

| | |
|-------|----------------------------------|
| S | - failure, supplemental granted |
| F | - failure, no supplemental |
| N | - credit withheld |
| Ab.D. | - absent, granted deferred final |
| Ab.F. | - absent, failed |
| P | - ungraded pass |
| IN | - incomplete |
| WP | - withdrew with permission |
| AB | - absent from final exam |
| Inc. | - incomplete |