**Transfer Agreement**

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| GBC logo | **TMCC logo** |
| **Associate Degree Program:** | **Bachelor’s Degree Program:** |
| **Any Associate of Applied Science (AAS)** | **Bachelor of Applied Science, CyberPhysical Manufacturing** |

*NOTE: This transfer agreement has been created specifically for the programs listed above and only applies to students that complete the associate degree listed. If the associate degree is not earned, or a new program is selected, the transfer and articulation of listed courses, as well as fulfilled degree requirements, could be impacted.*

**Important Information:** Applicants to this BAS program must have an Associate degree from an institutionally accredited institution.

This agreement is based on any Associate of Applied Science degree offered at GBC. Credit variations may occur based on the number of units required for each Associate of Applied Science degree.

**Specific General Education Courses Required: ENG 102; MATH 126, 127, 181 or STAT 152; Social Science: ECON 102; Humanities/Diversity: AAD 201 (also taken at TMCC): Science: ENV 100 and PHYS 100.** These courses should be completed during the associate program. NOTE: Lower-division General Education requirements are fulfilled upon completion of the associate degree, with the exception of the courses listed above. If a General Education subject is not listed here, you may select any general education course approved for the associate degree program.

**Specific Program Courses Required: OSH 222 (see below)**

These courses will articulate to specific program requirements for the bachelor’s program. Courses marked with an asterisk (\*) are critical prerequisite or bachelor’s program progression courses which will impact a student’s progress to completing the bachelor’s degree in a timely manner if they are not taken during the associate degree program.

**Courses that must be taken at TMCC: AAD 201, OSH 222. These courses are offered online.**

These courses are must be taken at TMCC and may be used for reverse transfer towards the Associate of Applied Science degree.

**Articulations/Block Transfer: N/A**

These courses are approved articulations/substitutions/block transfer for the above mentioned programs and will transfer accordingly and apply to the bachelor’s program as listed.

## Year-to-Year Course Outline

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| **Associate of Applied Science Program** |
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| **Semester 1 (15 units)** |
| ENG 101 – Composition I (3 units) |
| MATH 126 – Pre-calculus I or higher (3 units) |
| AAS Program Requirements (9 units) |
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| **Semester 2 (15 units)** |
| ENG 102 – Composition II (3 units) |
| Science: PHYS 100 – Introductory Physics (3 units)\* |
| Fine Arts (3 units)\* |
| AAS Program Requirements (6 units) |
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| **Semester 3 (17 units)** |
| U.S. & NV Constitutions (3 units) |
| Social Science: ECON 102 – Principles of Microeconomics (3 units)\* |
| Human Relations (3 units) |
| AAS Program Requirements (8 units) |
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| **Semester 4 (13 units)** |
| Humanities/Diversity: AAD 201 (3 units)\*\* |
| Human Relations (3 units)  OSH 222 (1 unit)\*\* |
| Technology (3 units) |
| AAS Program Requirements (9 units) |
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| \*Meets program requirement  \*\* Must be taken at TMCC (online) for reverse transfer |
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| **BAS CyberPhysical Manufacturing** |
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| **Semester 5 (15 units)** |
| CS 151 – Introduction to Cybersecurity (3 units) |
| MPT 311 – Laser Scanning Methods / Techniques (3 units) |
| MPT 312 – Industry 4.0 / CyberPhysical Manufacturing (3 units) |
| CADD 245 – Solid Modeling and Parametric Design (3 units) |
| Science: ENV 101 – Introduction to Environmental Science (3 units) |
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| **Semester 6 (14 units)** |
| MPT 305 – Introduction to System Dynamics (3 units) |
| MPT 325 – Digital Inspection / Quality Control (4 units) |
| MPT 340 – Computer Simulations and Analysis (4 units) |
| MPT 343 – Design and Manufacturing Process III (3 units) |
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| **Semester 7 (15 units)** |
| EIT 437 – Introduction to Control Systems (4 units) |
| ELM 240 – Advanced Manufacturing Robotic Systems (4 units) |
| ELM 340 – Robotic Programming Offline (3 units) |
| MPT 363 – Manufacturing Execution Systems (4 units) |
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| **Semester 8 (17 units)** |
| EIT 468 – Advanced Control Systems (3 units) |
| ELM 440 – Collaborative Robot Design and Operation (3 units) |
| MPT 411 – Advanced Machine Vision Integration (4 units) |
| MPT 412 – Advanced Digital Inspection (3 units) |
| MPT 415 – Simulation of Manufacturing Systems (4 units) |
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| **TOTAL 121 units** |