

2017 ISA Adaptive Surfing Sport Classes

| Sport Class | Sub-Class | Description |
|-------------|-----------|--|
| AS-1 | | Surfers who ride waves in a standing or kneeling position. |
| | AS-1UL | Surfers with an upper body impairment, who ride waves in a standing or kneeling position. |
| | AS-1LL | Surfers with a lower body impairment, who ride waves in a standing or kneeling position. |
| AS-2 | | Surfers who ride waves in a standing or kneeling position. |
| AS-3 | | Surfers who ride waves in a seated position. |
| AS-4 | | Surfers who ride waves in a prone position. |
| AS-5 | | Surfers who ride waves in any non-standing position and need assistance to paddle into waves and while in the water. |
| AS-VI | | Surfers who have a visual impairment. |
| | AS-VIB1 | Surfers who have a visual impairment. |
| | AS-VIB2 | Surfers who have a visual impairment. |
| | AS-VIB3 | Surfers who have a visual impairment. |

AS-1UL (Standing or Kneeling)

| Eligible Impairment | 2017 Minimum Criteria | 2016 Minimum Criteria | Reference |
|------------------------------------|---|--|-----------|
| Impaired muscle power | Measured using the Oxford Scale: 50 points or less (total 70 points) in one upper limb | Moderate-Severe muscle power impairment in upper extremities | |
| Impaired passive range of movement | <p>Passive range of motion minimum impairment criteria for the upper limb are</p> <p>1. Primary eligibility: one shoulder or elbow joint less than or equal to 25% of normal range of motion</p> <p>OR</p> <p>2. Secondary eligibility: shoulder and elbow joint of the same arm less than or equal to 50% of normal range of motion</p> <p>Planes of movement measured for adaptive surfing include:</p> <p>Shoulder Flexion/Extension Shoulder Abduction/Adduction Shoulder Internal/External Rotation Elbow Flexion/Extension Forearm Pronation/Supination</p> | Moderate-Severe passive range of movement impairment in upper extremities | |
| Limb deficiency | Unilateral at wrist amputation with no carpal bones | The presence of one of the following: severe upper limb deficiency or upper extremity amputation | |
| Hypertonia | <p>Athletes with neurological impairments must present with two of the three neurological signs: 1) Babinski, 2) clonus, 3) hyperreflexia. Impaired movement in at least one arm as a result of involuntary movement and/or incoordination. Spasticity = grade 1 on impaired side. Athlete is "Not Able" (NA) or "Partially Able" (PA) to perform 5/5 upper limb coordination tests in at least one arm.</p> | Moderate-severe increase in muscle tension in the upper extremities | |
| Ataxia | Impaired movement in at least one arm as a result of involuntary movement and/or incoordination. Athlete is "Not Able" (NA) or "Partially Able" (PA) to perform 5/5 upper limb coordination tests in at least one arm. | Moderate-severe uncoordinated movements in the upper extremities | |
| Athetosis | Impaired movement in at least one arm as a result of involuntary movement and/or incoordination. Athlete is "Not Able" (NA) or "Partially Able" (PA) to perform 5/5 upper limb coordination tests in at least one arm. | Moderate-severe slow involuntary movements in the upper extremities | |

AS-1LL (Standing or Kneeling)

| Eligible Impairment | 2017 Minimum Criteria | 2016 Minimum Criteria | Reference |
|------------------------------------|--|---|-----------------------|
| Impaired muscle power | Measured using the Oxford Scale: 40 points or less (total 60 points) in one lower limb, or lack of ankle DF/PF | Mild muscle power impairment in lower extremities | |
| Impaired passive range of movement | <p>Passive range of motion minimum impairment criteria for the lower limb are:</p> <p>1. Primary eligibility: one knee or hip joint less than or equal to 25% of normal range of motion OR</p> <p>2. Secondary eligibility: hip and knee joint of the same leg less than or equal to 50% of normal range of motion.</p> <p>Planes of movement measured for adaptive surfing include: Hip Extension/Flexion Hip Abduction/Adduction Hip Internal/External Rotation Knee Extension/Flexion</p> <p>3. Primary eligibility for the ankle is plantar grade motion restricted to less than or equal to minus 15 to minus 45 degrees of motion. Ankylosis at 0 degrees is ineligible.</p> | Mild passive range of movement impairment in lower extremities | |
| Limb deficiency | Unilateral Syme's (through ankle) amputation | The presence of one of the following: moderate lower limb deficiency or below knee amputation | |
| Leg length difference | Reduced length in one leg by minimum of 7 cm | Reduced length in one leg by minimum of 7 cm | |
| Short stature | Maximum body height or 137cm for female Athletes and 145cm for male Athletes | Standing height is reduced due to shortened legs, arms and trunk, which are due to a musculoskeletal deficit of bone or cartilage structures. | (World Para Swimming) |
| Hypertonia | Athletes with neurologic impairments must present with two of the following three neurologic signs: 1) Babinski, 2) clonus, 3) hyperreflexia Spasticity = grade of 1 on impaired side. Athlete is also 'Not Able' (NA) or 'Partially Able' in 4/10 lower limb coordination tests in at least one leg | Mild increase in muscle tension in the lower extremities | |
| Ataxia | Impaired movement in one leg as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or 'Partially Able' in 4/10 lower limb coordination tests in at least one leg. Single leg stance on impaired side greater than 3 sec. Able to hop on impaired side, but difficulty remaining on one spot. Side step towards impaired side more laboured than intact side. Able to heel walk, approx. 2m | Mild uncoordinated movements in the lower extremities | |
| Athetosis | Impaired movement in one leg as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or 'Partially Able' in 4/10 lower limb coordination tests in at least one leg. Single leg stance on impaired side greater than 3 sec. Able to hop on impaired side, but difficulty remaining on one spot. Side step towards impaired side more laboured than intact side. Able to heel walk, approx. 2m | Mild slow involuntary movements in the lower extremities | |

AS-2 (Standing or Kneeling)

| Eligible Impairment | 2017 Minimum Criteria | 2016 Minimum Criteria | Reference |
|------------------------------------|---|---|-----------|
| Impaired muscle power | Measured using the Oxford Scale: 30 points or less (total 60) in one leg or 80 points or less in two legs (total 120). | Moderate muscle power impairment in lower extremities | |
| Impaired passive range of movement | <p>Passive range of motion minimum impairment criteria for the lower limb are:</p> <ol style="list-style-type: none"> 1. One knee or hip joint less than or equal to 25% of normal range of motion AND 2. One Hip and knee joint of the same leg less than or equal to 50% of normal range of motion OR 3. Both shoulder or elbow joints less than or equal to 25% of normal range of motion <p>Planes of movement measured for adaptive surfing include:</p> <ul style="list-style-type: none"> Hip Extension/Flexion Hip Abduction/Adduction Hip Internal/External Rotation Knee Extension/Flexion Shoulder Flexion/Extension Shoulder Abduction/Adduction Shoulder Internal/External Rotation Elbow Flexion/Extension Forearm Pronation/Supination <p>4. Primary eligibility for the ankle is plantar grade motion restricted to less than or equal to minus 15 to minus 45 degrees of motion. Ankylosis at 0 degrees is ineligible.</p> | Moderate passive range of movement impairment in lower extremities, or severe passive range of movement impairment in upper extremities | |
| Limb deficiency | Unilateral at knee amputation (knee disarticulation); OR, bilateral Syme's (through ankle) amputations | The presence of one or more of the following: severe lower limb deficiency, and/or, above knee amputation | |
| Leg length difference | Reduced length in leg by minimum of 12 cm | Reduced length in leg by minimum of 12 cm | |
| Hypertonia | Athletes with neurologic impairments must present with two of the following three neurologic signs: 1) Babinski, 2) clonus, 3) hyperreflexia. Spasticity = grade of 2 impaired side. Athlete is also 'Not Able' (NA) or 'Partially Able' in 6/10 lower limb coordination tests in at least one leg | Moderate increase in muscle tension in lower extremities | |
| Ataxia | Impaired movement in one leg as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or 'Partially Able' in 6/10 lower limb coordination tests in at least one leg | Moderate uncoordinated movements in the lower extremities | |
| Athetosis | Impaired movement in one leg as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or 'Partially Able' in 6/10 lower limb coordination tests in at least one leg | Moderate slow involuntary movements in the lower extremities | |

AS-3 (Upright)

| Eligible Impairment | 2017 Minimum Criteria | 2017 Minimum Criteria |
|------------------------------------|--|--|
| Impaired muscle power | Measured using the Oxford Scale: 20 points or less in lower extremities (total 120) | Severe muscle power impairment in lower extremities |
| Impaired passive range of movement | Passive range of motion minimum impairment criteria for the lower limbs are: Both knee or hip joints less than or equal to 25% of normal range of motion Planes of movement measured for adaptive surfing include: Hip Extension/Flexion Hip Abduction/Adduction Hip Internal/External Rotation Knee Extension/Flexion | Severe passive range of movement impairment in lower extremities |
| Limb deficiency | Bilateral at knee amputations (Knee disarticulation) | Three or more limbs must have moderate deficiencies |
| Hypertonia | Athletes with neurologic impairments must present with two of the following three neurologic signs: 1) Babinski, 2) clonus, 3) hyperreflexia. Spasticity = grade of 2 impaired side. Athlete is also 'Not Able' (NA) or in 10/10 lower limb coordination tests in two legs | Severe increase in muscle tension in lower extremities |
| Ataxia | Impaired movement in two legs as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or in 10/10 lower limb coordination tests in two legs | Severe uncoordinated movements in the lower extremities |
| Athetosis | Impaired movement in two legs as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or in 10/10 lower limb coordination tests in two legs | Severe slow involuntary movements in the lower extremities |

AS-4 (Prone)

| Eligible Impairment | 2017 Minimum Criteria | 2016 Minimum Criteria |
|------------------------------------|--|--|
| Impaired muscle power | Measured using the Oxford Scale: 20 points or less in lower extremities (total 120) | Severe muscle power impairment in lower extremities |
| Impaired passive range of movement | Passive range of motion minimum impairment criteria for the lower limbs are: Both knee or hip joints less than or equal to 25% of normal range of motion Planes of movement measured for adaptive surfing include: Hip Extension/Flexion Hip Abduction/Adduction Hip Internal/External Rotation Knee Extension/Flexion | Severe passive range of movement impairment in lower extremities |
| Limb deficiency | Bilateral at knee amputations (Knee disarticulation) | Three or more limbs must have moderate deficiencies |
| Hypertonia | Athletes with neurologic impairments must present with two of the following three neurologic signs: 1) Babinski, 2) clonus, 3) hyperreflexia. Spasticity = grade of 2 impaired side. Athlete is also 'Not Able' (NA) or in 10/10 lower limb coordination tests in two legs | Severe increase in muscle tension in lower extremities |
| Ataxia | Impaired movement in two legs as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or in 10/10 lower limb coordination tests in two legs | Severe uncoordinated movements in the lower extremities |
| Athetosis | Impaired movement in two legs as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) or in 10/10 lower limb coordination tests in two legs | Severe slow involuntary movements in the lower extremities |

AS-5 (Assist- non-standing)

| Eligible Impairment | 2017 Minimum Criteria | 2016 Minimum Criteria |
|------------------------------------|--|--|
| Impaired muscle power | Measured using the Oxford Scale: 20 points or less in lower extremities (out of 120) AND 100 or less in upper extremities (out of 140) | Severe muscle power impairment in upper and lower extremities |
| Impaired passive range of movement | Passive range of motion minimum impairment criteria for the upper limbs and lower limbs are: 1. Both shoulder or elbow joints less than or equal to 25% of normal range of motion AND 2. Both knee or hip joints less than or equal to 25% of normal range of motion Planes of movement measured for adaptive surfing include: Hip Extension/Flexion Hip Abduction/Adduction Hip Internal/External Rotation Knee Extension/Flexion Shoulder Flexion/Extension Shoulder Abduction/Adduction Shoulder Internal/External Rotation Elbow Flexion/Extension Forearm Pronation/Supination | Severe passive range of movement impairment in upper and lower extremities |
| Limb deficiency | Bilateral at wrist amputations with no carpal bones, AND Bilateral at knee amputations (Knee disarticulation) | Three or more limbs must have severe deficiencies |
| Hypertonia | Athletes with neurological impairments must present with two of the three neurological signs: 1) Babinski, 2) clonus, 3) hyperreflexia. Impaired movement in two arms as a result of involuntary movement and/or incoordination. Spasticity = grade 1 on impaired side. Athlete is "Not Able" (NA) or "Partially Able" (PA) to perform 5/5 upper limb coordination tests in two arms; AND, Athletes with neurologic impairments must present with two of the following three neurologic signs: 1) Babinski, 2) clonus, 3) hyperreflexia. Spasticity = grade of 2 impaired side. Athlete is also 'Not Able' (NA) in 10/10 lower limb coordination tests in two legs | Severe increase in muscle tension in upper and lower extremities |
| Ataxia | Impaired movement in two arms as a result of involuntary movement and/or incoordination. Athlete is "Not Able" (NA) or "Partially Able" (PA) to perform 5/5 upper limb coordination tests in two arms; AND, Impaired movement in one leg as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) in 10/10 lower limb coordination tests in two legs | Severe uncoordinated movements in the upper and lower extremities |
| Athetosis | Impaired movement in two arms as a result of involuntary movement and/or incoordination. Athlete is "Not Able" (NA) or "Partially Able" (PA) to perform 5/5 upper limb coordination tests in two arms; AND, Impaired movement in one leg as a result of involuntary movement and/or incoordination. Athlete is 'Not Able' (NA) in 10/10 lower limb coordination tests in two legs | Severe slow involuntary movements in the upper and lower extremities |

AS-VI (Visually Impaired)

| Eligible Impairment | 2017 Minimum Criteria | (reference) |
|---------------------|--|---|
| Vision Impairment | Based on the IBSA definition of visual classes: The determination of visual class will be based upon the eye with better visual acuity, whilst wearing best optical correction using spectacles or contact lenses, and/or visual fields which include central and peripheral zones. Athlete's will be placed into sub-classes as follows: B1- Visual acuity poorer than LogMAR 2.6; B2- Visual acuity ranging from LogMAR 1.5 to 2.6 (inclusive) and/or Visual field constricted to a diameter of less than 10 degrees; and, B3- Visual acuity ranging from LogMAR 1.4 to 1.0 (inclusive) and/or Visual field constricted to a diameter of less than 40 degrees. | http://precision-vision.com/Introduction-to-Visual-Acuity-Measurement/a-visualacuity.html#.VJJaKPIViko |
| | | IPC Alpine Skiing minimal criteria |

IBSA Definition of Visual Classes

<http://www.ibsasport.org/classification/>

B1:

Visual acuity poorer than LogMAR 2.6.

B2:

Visual acuity ranging from LogMAR 1.5 to 2.6 (inclusive) and/or Visual field constricted to a diameter of less than 10 degrees.

B3:

Visual acuity ranging from LogMAR 1.4 to 1.0 (inclusive) and/or Visual field constricted to a diameter of less than 40 degrees.