



Beginner's Strength & Flexibility Course Syllabus

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Below is the syllabus for the full *Strength & Flexibility* course that we offer over 14 weeks at the Australian National University in Canberra, Australia. The **syllabus is presented here for participants of the 12-hour *Strength & Flexibility: Introduction to the Monkey Gym workshop*** that we now offer. This is intended to give workshop attendees a clear understanding of the breadth and depth of the full course, and to provide additional reading and background for discussion on the workshop.

The ***Strength & Flexibility workshop*** is designed to upskill attendees on the core skills and principles of *The Monkey Gym*, so that they can exercise safely and effectively anywhere. The main emphasis is body weight exercises. These principles cross over with the stretching components of *Stretch Therapy*, though with an emphasis on body awareness during strength movements; using proper form; sufficient intensity; and as full a range of motion as possible.

Three-point spinal alignment drill

All cues applied standing up; then with a stick on the back, then on the ground, during a push-up exercise (difficulty of push-up dependant on individual, but spine shape must be maintained throughout). The spinal alignment is also checked in the natural row (horizontal pull), as the stresses imposed on the body are different. Together, these two drills challenge core stability in the antero-posterior plane, mainly. For more advanced students, the third, rotational, plane can be added easily (renegade row, one-arm horizontal row).

Once spinal alignment can be maintained, it is also desirable to develop the capacity to alter the alignment at the three main locations, individually or severally, whilst the core is under stress. The aim is to progress this drill to the low Roman rings, by adding increasing instability to the basic positions.

Glute activation

Activation of the glutes is achieved through numerous drills, the primary one being the **Swiss ball glute activation and hamstring sequencing**. Key here is the capacity to alter spinal alignment under load, so that the *erector spinae* group is relatively relaxed, and both glutes and hamstrings share the twin loads of stabilisation and knee flexion. Intensity is increased by decreasing base of support or increasing leverage, or add weight to increase difficulty. Other drills used are:

- One leg Romanian dead lift
- Glute activation on Roman chair
- Pull-throughs
- Clams
- Step-ups

Knee tracking

For maximum efficiency in production of power, the hips joints, knee joints and ankles need to move in one plane (no lateral knee movement). The knee must track in line with the foot in squatting and other movements and the shape of the arch of the foot preserved.

Drills include lunges, step-ups, lateral lunges, bodyweight and loaded full squats, progressing to the one-legged squat ('pistols'); these are progressed through supported through to loaded.



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Foot alignment and significance

All classes are barefoot. The foot is presented as a tripod structure, and the importance of full foot proprioception is stressed repeatedly. The relation between feet, ankle, knee and hip mobility and stability is taught. Exercises for the feet are sometimes covered in joint mobility (see below; individual teachers favour various approaches).

"Lower ab" activation

Activation of *transversus abdominis*, internal obliques and lower fibres of *rectus abdominis* on the floor.

- **Reverse crunch:** by progression from the "lower ab" activation drill, the lower fibres of *rectus abdominis* are targeted. Progression as follows:
 - Ground
 - Hips elevated with mat
 - Off sit-up board and ladder bars
 - Off ladder bars on a Swiss ball
 - Swiss ball and one arm only on ladder bars

Scapular retraction

This skill is taught via joint mobility exercises (many variations). Then, the skill is transferred to the vertical and horizontal planes, pressing and pulling, and other movements involving scapular stability. Progression includes knee pushups (off then on Swiss ball) through to full pushups on floor; then Roman rings with feet on Swiss ball.

Rotator cuff (RC)

As a force couple for the upper body, the emphasis is on proper technique during the external rotator cuff exercise. We use the reciprocal inhibition reflex to switch off middle and rear deltoids (ball in between elbow and trunk, working arm) so that the external RC muscles have to do the work. We use the cable machine, bands, or dumbbells.

Movement patterns

Demonstration of proper alignment during: squatting; uni-lateral leg movements; vertical pulling and pressing; horizontal pulling and pushing (especially being able to hold spine in alignment during these two movements); posterior chain exercises; torso rotation (lower and upper); core bracing; and, some easier variations in the multi-plane resistance movements. Of course, many daily life movements require the spine to perform multi-plane movements under concentric or eccentric loads, so these drills are stressed as training exercises which provide awareness and strength that can be carried over into more complex tasks.

Joint mobility

Joint mobility is used as a warm-up; to help increase body awareness; and expose any major differences in L-R sidedness ROM (screening for injury and also injury potential; and possibly helping overcome some injuries). A large selection of exercises is used, based on the individual instructor's preferences.

Currently a selection from Steve Maxwell and Eric Cressey are used. Students are encouraged to find the exercises they find difficult (out of the presented material), and work them into their own programs. A continuum of mobility and stability of joints is used as a template to help students understand the topic.



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Introduction to grip and hand strength

Students are introduced to the concepts behind grip and hand training for functional strength and power-to-weight ratio improvement. All types of grip are trained. Flexor strength training is innate in the general exercises (e.g. pull-ups and rows), and the complementary finger/forearm extensor requirement is trained with small bands, asymmetric dumbbells for pronators, and *opponens pollicis* (the thumb) is specifically trained on thick ropes, handles, and the pinch grip.

Exercise programming and general principles

Students must understand the concepts of:

- Form – attention to **form** is paramount.
- Reps and sets.
- Super-setting.
- Rest intervals.
- 'Failure' in good form.
- Use of the coaching model – working with a partner.
- Using DOMS to increase body awareness; i.e., the sore bits did the work!
- Rep ranges, and the associated physiological adaptations – ideal resistance (weight used) to enable 6–15 reps only
 - 1–6 favours neural adaptation; 'learning' the movement or strength gain (see note re intensity below)
 - 7–15 emphasises hypertrophy; increasing muscle mass (aids body recomposition) and strength
- **Intensity** needs to be sufficient to promote adaptation
 - Neural adaptation: when intensity is low, favours learning; when intensity is high, maximum strength gain facilitated
 - Hypertrophy: intensity = medium-high. Try for 'failure' in good form.
- Stretch at the end of a strength session; focus on muscles worked.
- Feed yourself properly, and ensure **sufficient rest**.
- Change workouts often: different exercises, different exercise sequence, different number of reps/sets, different weight.
- Other general programming/strength training.

From Beginner's to Intermediate, and beyond ... Advanced!

The Beginner's course is more accurately described as an 'Introduction to The Monkey Gym Principles', as it is scalable to each individual's physical skill set. After completion of the Beginner's course, the Intermediate course focuses more on development of individualised exercise programs; more independent training; increasing intensity within good form; trying different exercise strategies (higher resistance, lower reps, volume training, metabolic training, etc.) and progressing exercises in difficulty along the movement pattern continuum.

In the Advanced class, there is no syllabus *per se*. Students challenge themselves with training methods from gymnastics, Olympic lifting and kettlebell sport (Girevoy Sport) – with new exercises from any exercise modality trialled at any Advanced session; it's a bit like 'entering the Colosseum: any new exercise gets a collective thumbs-up, or down.



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Progressing Beginner's exercises to Intermediate and Advanced level

Glute activation

- Deadlift variants
- Kettlebell swings and cleans
- Jump training (once glutes active, also a progression on knee tracking)

Core training

- Holds and rotational exercises off the Roman chair
- Heavy 'mirror' rotations
- Stall bar leg raises (reverse crunch progression)
- Parallette L- and V-sits
- Middle-split holds

Spinal alignment

- Renegade rows
- Modified front lever holds and pulls
- Planche training (with spinal and scapular cuing)
- Use of low Roman ring variants

Rotator cuff

- Ring dips with wrists turned out

Grip training

- Levering with hammers
- Two-handed rotation with hammer (use spinal cues as well)

Scapular positioning – applies in most exercises, but in particular:

- Chest-to-wall handstands, for time

Many of the exercises in Intermediate, and especially Advanced classes, blend a lot of the cues from Beginner's in the same exercise. For example, jumping combines knee tracking, foot proprioception, glute activation and the spinal cues to execute correctly. Planche training (the way we do it) involves the spinal cues, plus scapular retraction and positioning. There are many other examples of this but, in general, the exercises for Intermediate and Advanced are progressed from Beginner's by:

- decreasing the base of support
- increasing leverage disadvantage and/or adding resistance; or by
- increasing the difficulty by adding all of those elements whilst blending multiple principles into the one, whole-body exercise.

